KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - G.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR)

DEPARTMENT OF INFORMATION TECHNOLOGY

VALUE ADDED COURSE DETAILS

2024 - 2025

R 2021

"Deep Learning using Python"

05.08.2024 - 09.08.2024

Note: Soft copy of the content is shared via the following link:

https://kcetvnrorg.sharepoint.com/:f:/s/itmsteam2/EvOntIEKA4NGm-qh7XiA8jIBbm8vRhgDiswzrBqJaJk3Sw?e=PN1zvK

VAC Coordinator

[Mr. S.M. RAM BABU]
AP-IT

HoD / IT

Verified
29/8/2024
S. Athilakshmi
Vice Coordinator

Value Added Course Details

1. Academic Year	: 2024 - 2025
2. Regulation	: R2021
3. Department Name	: Information Technology
4. Name of the Value Added Course	: **"Deep Learning using Python"**
5. Number of Credits	: 2
6. Category	: Theory / Lab / **Hands-on** / Skill Based
7. Details of the Joint Organization	: Foursteps Training Solutions
8. Resource Person Details	: Mr. Preetham Tiwari, Trainer, Foursteps Training Solutions, Madurai 9962547654 Saravanan@fourstepsolutions.com
9. Three Member Committee Details	: 1) Dr. E. Vakaimalar, Associate Professor & HoD / IT 2) Dr. R. Arthy, AP/IT 3) Mr. D. Vendhan, AP/IT
10. VAC Coordinator Details	: Mr.G.H.Ram Ganesh, AP/IT Mrs.R. Saranya Priyadharshini, AP/IT
11. Duration	: 45 Hours
12. Period	: 05.08.2024 - 09.08.2024
13. Venue	: New IT Lab (Linux Block)

29/8/24

VAC Coordinator

[Mr. G.H.RAM GANESH]

[Mrs. R. SARANYA PRIYADHARSHINI]

HoD / IT

28/8/24

Dean Academic Course

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY

S.P.G.Chidambara Nadar - C. Nagammal Campus,
S.P.G.C. Nagar, K. Vellakulam - 625 701, Near VIRUDHUNAGAR, Madurai District.
Accredited by NAAC with 'A' Grade

Submitted to the SECRETARY for approval through the PRINCIPAL

Book No.

IT

SL No. 77

Date 24/07/2024

Approval for Value Added course - reg.

The following value Added course has been Planned and recommended for III year IT students

1. Deep Learning [PYTHON]
   Foursteps Training solutions

Batch I → 40 students

40 * 1,500 = Rs. 60,000/-

Number of Days : 5 [05/08/2024 to 09/08/2024]

Trainer accomodation with food at Hostel

Morning & Afternoon - Tea & snacks

Signature of Faculty 24/07/24

HOD 24/7/24

PRINCIPAL 24/7/24

OFFICE USE

1) Budget allotted : Value added Cours

2) Amount committed / Spent sofar :

3) Balance available :

OM

Treasurer

Secretary

Foursteps™ TRAINING SOLUTIONS

5/9, 3rd Cross St, above SBI Bank,
Kamarajar Nagar, Gill Nagar, Choolaimedu,
Chennai, Tamil Nadu 600094

Phone: +91 7299 51 53 54
Mobile: +91 9962 54 76 54
Email: fourtsepsolutions@gmail.com
www: www.fourstepsolutions.com

INVOICE

To:

Kamaraj College of Engineering and Technology
S.P.G.C.Nagar, K.Vellakulam - 625 701. Near
Virudhunagar , Madurai

Invoice No:	FS42562
Invoice Date:	09- 08 -2024
Contact No:	+91996254 7654
Contact Name:	J Saravanan
Currency Format:	INR

S.NO	PRODUCT DESCRIPTION	AMOUNT EACH	No of Students	AMOUNT
1	Deep Learning Using Python - 5 Day Program	**1500.00**	40	**60,000.00**
		SUB TOTAL	40	60,000.00
		TOTAL		60,000.00
AMOUNT IN WORDS:	**INR Rupees Sixty Thousand Only**			

Pan Number AACC F2664 C
Company Identification U80901TN2013PTC092934
ACCOUNT DETAILS :-

Name of the Account : FOUR STEPS TRAINING SOLUTIONS PVT LTD
Account No. : 041863300001283
Account type : CURRENT
Bank Name : YES BANK
IFSC code : YESB0000418

Cheque to be made in Favor for " Four Steps Training Solutions Pvt Ltd "

FOUR STEPS TRAINING SOLUTIONS PVT LTD CHENNAI

For Foursteps

THANK YOU FOR YOUR BUSINESS

From

G.H.Ram Ganesh,
Assistant Professor,
Department of Information Technology,
Kamaraj College of Engineering and Technology,
Virudhunagar

To

The Principal,
Kamaraj College of Engineering and Technology,
Virudhunagar

Through,

The HoD,
Department of Information Technology,
Kamaraj College of Engineering and Technology,
Virudhunagar

Dear Sir,

Sub: Request for Trainer Accommodation and Food - Reg.

We are organizing value added course on Deep Learning using PYTHON for third year students from 05-08-2024 to 09-08-2024.

I request you to give permission for the trainer to stay in the Boys Hostel and have food from the Boys Hostel Mess. Kindly do the needful.

Trainer Name : Mr. Preetham Tiwari, Lead Data Scientist
Company Name : Foursteps Training Solutions

Thank you

Virudhunagar
02-08-2024

Yours faithfully,

2.8.24

Forwarded
E. Valarmathi
2/8/24

may be considered
2/8/24

)0

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using PYTHON"

Circular

01.08.2024

Our department has planned to organize a **Value Added Course on "Deep Learning using PYTHON"** for III year Information Technology students from **05.08.2024 to 09.08.2024.** Students are advised to attend the course with fullest energy and gain knowledge.

Venue : New IT Lab (Linux Block)
Resource Person : Mr. Preetham Tiwari,
Trainer,
Foursteps Training Solutions,
Madurai.

1/8/24

HoD / IT

To be read in:

1. III IT Class Room

ARTIFICIAL INTELLIGENCE
DEEP LEARNING COURSE CURRICULUM

PROPOSAL TO
KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY

SYLLABUS

1. **PYTHON FOR DATA SCIENCE**
    a. Hello World
    b. Data Types
    c. Operations
    d. Conditions
    e. Loops
    f. String Operators
    g. Data Structures & Handling
    h. Functions
    i. Class
    j. Exception handling
2. **MODULES AND PACKAGES**
    a. Numpy
    b. Pandas
    c. Seaborn
    d. Time
    e. Random
    f. OS
    g. Glob
3. **VISUALIZATION**
    a. Data Understanding
    b. Exploratory Analysis
        i. Bivariate Analysis
        ii. Multivariate Analysis
    c. Data Pre-processing and cleaning
    d. Visualization
4. **STATISTICS**
    a. Statistics
    b. Distributions
    c. Probability

5. **MACHINE LEARNING:**
    a. **Supervised Regression**
        i. Exploratory Data Analysis
        ii. Linear Regression (LR)
        iii. Feature Engineering and Selection
    b. **Supervised Classification**
        i. Logistic Regression
        ii. K-Nearest Neighbours
        iii. Support Vector machines
        iv. Decision Trees
        v. Naive Bayes
        vi. Ensemble Techniques
            1. Bagging
            2. Boosting
            3. Random Forest
    c. **Unsupervised Learning**
        i. K-means Algorithm
        ii. DB Clustering
6. **Image Processing**
    a. **Image Basics**
        i. Hello world to Image Processing
        ii. Drawing Operations
        iii. Basic Image Handling
        iv. Masking Operation
        v. Removing Noise in images
        vi. Thresholding
        vii. Morphological Operations
        viii. Histograms
        ix. Contours
    b. **Feature Extraction Techniques**
        i. Color Channel Statistics
        ii. Haralick Textures
        iii. LBPH
        iv. HOG

c. Machine learning with image processing
d. Case Studies of Machine Learning on images

7. **DEEP LEARNING**
   a. Neural Networks
      i. Neurons
      ii. Layers
      iii. Activation Functions
      iv. Weights and Bias
      v. Back Propagation
      vi. Error Calculation and Weight update
      vii. Optimizations
   b. Creating Neural Network for Numerical Dataset
      i. EDA
      ii. Creating Architecture
      iii. Model Hyper parameter fine tuning
   c. Creating Neural Network for Image Dataset
      i. EDA
      ii. Creating Architecture
      iii. Model Hyper parameter fine tuning
   d. Convolutional Neural Network
      i. Convolutions and Feature maps
      ii. Pooling
      iii. Dropout
      iv. Normalization
   e. Creating CNN for Image dataset
      i. Convolutions and Feature maps
      ii. Pooling
      iii. Dropout
      iv. Normalization
   f. Transfer Learning Techniques
   g. Introduction to GAN and basic implementation

COST OF THE PROGRAM:

Students will be put up in batches and will be given a project to develop

Duration: 5 Days

Cost of the Program: Rs.1, 500/ Head

TAXES EXTRA

IF GST REQUIRED THE BILLING WILL BE DONE FROM OUR IT FIRM

"SMARTANT TECHNOLOGIES PVT LTD"

Email Us : Saravanan@fourstepsolutions.com
Contact Us : +91 7299 51 53 54

www.fourstepsolutions.com

Course Outcomes:

1. Students will be able to understand the basics of Python, Modules and Packages
2. Students will understand the importance of Statistics and Visualization techniques.
3. Students will understand the concepts of Machine Learning.
4. Students will understand the types of Deep Learning concepts.

VAC COORDINATOR
[Mr. G.N.RAM GANESH]
AP-IT

HOD | IT

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DEPARTMENT OF INFORMATION TECHNOLOGY

PROGRAMME ASSESSMENT COMMITTEE MEETING [2024 - 2025]

Dr. E. VAKAIMALAR
CHAIRMAN Date: 20.07.2024

PROCEEDINGS OF THE 8th PROGRAMME ASSESSMENT COMMITTEE MEETING OF DEPARTMENT OF INFORMATION TECHNOLOGY HELD ON 20.07.2024 AT 10.30 A.M.

MEMBERS PRESENT:

I. Internal Stakeholders

Chairman of PAC & Associate Professor

1. Dr. E. Vakaimalar, Associate Professor & Head
   Department of Information Technology,
   Kamaraj College of Engineering and Technology (Autonomous)
   SPGC Nagar, K. Vellakulam, (Near Virudhunagar).

Professor

2. Dr. R. Muthuselvi, Professor/IT
   Department of Information Technology,
   Kamaraj College of Engineering and Technology (Autonomous)
   SPGC Nagar, K. Vellakulam, (Near Virudhunagar).

Assistant Professors

3. Mrs. V. Deepa Priya, AP/IT
   Department of Information Technology,
   Kamaraj College of Engineering and Technology (Autonomous)
   SPGC Nagar, K. Vellakulam, (Near Virudhunagar).

4. Mrs. P. Saranya Priyadharshini, AP/IT
   Department of Information Technology,
   Kamaraj College of Engineering and Technology (Autonomous)
   SPGC Nagar, K. Vellakulam, (Near Virudhunagar).

NBA Coordinator

5. Dr. R. Arthy, AP/IT
   Department of Information Technology,
   Kamaraj College of Engineering and Technology (Autonomous)
   SPGC Nagar, K. Vellakulam, (Near Virudhunagar).

Students of Department of Information Technology

IV Year Students (2021 – 2025)

1. Ms. I. Sudharsana - (21UIT014)
2. Mr. S. Sibi Siddharthan - (21UIT041)
3. Ms.S. Meenakshi - (21UIT038)
4. Mr.M. Vishal - (21UIT049)

III Year Students (2022 - 2026)

5. Mr. A.Darin Vidhu - (22UIT020)
6. Ms. K.Priya Jayam - (22UIT069)
7. Ms.G. Janavarshini - (22UIT051)
8. Ms.K.L.Issac Pradeep Raj - (22UIT047)

II Year Students (2023 - 2027)

9. Mr.A. Rohan - (23UIT062)
10. Ms.B. Swetha - (23UIT095)
11. Ms.A. Roshni - (23UIT085)
12. Mr.G. Siddharthkumar - (23UIT088)

II. External Stakeholders

1. Academician

Dr. T. Senthil Kumar, B.E., M,Tech., Ph.D.,
Professor, Computer Science and Engineering
Amrita School of Engineering, Coimbatore
Email : t_senthilkumar@cb.amrita.edu
Contact No.:98429 77522

2. Alumni

Mr. K. Manoganesh B.Tech.,
Solution Architect, Xmplar Management Solutions Private Limited,Bangalore.
Email: Manoganesh@xmplar.in
Contact No.:88837 50050

3. Expert from Industry

Mr. S. Sivanesh Kumar B.Tech., M.B.A.,
Manager, Wipro Technologies Ltd., Bangalore.
Email: Sivaneshkumarit@gmail.com
Contact No.:96426 39666

4. Parents

Mrs. A. Sujatha
M/o Mr. A. Darin Vidhu, II IT (22UIT020)

The following were the recording of the meeting:

<table>
<tr><th>S. No.</th><th>PARTICULARS</th><th>RESOLUTION</th></tr>
<tr><td>1.</td><td>Welcome Address</td><td>Dr. E. Vakaimalar, Chairman welcomed all the members of the PAC.</td></tr>
<tr><td>2.</td><td>Introduction of PAC Members</td><td>Mr. G.H.Ram Ganesh, PAC Coordinator introduced the members of the PAC. He thanked the PAC members for their valuable suggestions and guidance in improving the performance of the students in both curricular and co-curricular aspects.</td></tr>
<tr><td>3.</td><td>College and Department Profile</td><td>The Chairman presented the vision, mission, history, growth, milestones of the college and the department. She also happily shared the information that the department of IT has received extension of NBA accreditation for the academic years 2024-2027 and got research center for our institution in the academic year 2023-2024.</td></tr>
<tr><td>4.</td><td>Ratifications of the previous PAC 2022-2023 Minutes</td><td>Dr.D.Vendhan listed the suggestions given by the PAC members in the previous meeting held on 22.07.2023 and ratifications for those suggestions.
<table>
<tr><th>Suggestions</th><th>Status</th></tr>
<tr><td>Dr. T. Senthil Kumar

Suggested having the practice of project work initiation in the beginning of third year itself.</td><td>Ratified.

Final year projects have been presented in International conference.

P. Joe Selva Rakshan (21UIT046), G. S. Balaji (21UIT048) and M. Praveen Kumar (21UIT056) won a cash prize of Rs. 12,000 /- in the Mepco Ideathon’24 Contest.

B. Gomathy (21UIT012) and I. Sudharsana (21UIT014) won a cash prize of Rs. 2,000 /- in the Mepco Ideathon’24 Contest.

P. Vishnu Deepan (21UIT002), A. Sandeep Joe (21UIT023), and B. Bala Chibi Hariesh (21UIT057) had undergone one month internship at Tech Browse, Bangalore.</td></tr>
</table></td></tr>
</table>

		Suggested improving the students' knowledge level by submitting their papers in Scopus indexed journals.	**Partially Ratified.** P. Joe Selva Rakshan (21UIT046), M. Easkkithai @ Sumathi (21UIT047), and M. Praveen Kumar (21UIT056), "App Based Digital Audiometer" in First National Conference on Emerging Trends in Engineering and Technology (ETET 2024) at National Institute of Technology, Puducherry on15.02.2024 & 16.02.2024 and received Best Paper Presentation Award. G. Vishnu Priya (21UIT040), and G. Swatheeswari (21UIT060), "Image Processing Based Animal Detection and Sending Notification Using CNN and Yolo V4" in First National Conference on Emerging Trends in Engineering and Technology (ETET 2024) at National Institute of Technology, Puducherry on 15.02.2024 & 16.02.2024. D. Charanya (21UIT018), K. Akila (21UIT029), and S. Dharun (21UIT031), "Agro Tech App: Harnessing Precision Agriculture for Bountiful Harvests" in 6th International Conference on Bio-Technological Intervention for Heath, Agriculture and Circular Economy (BioSangam 2024) at Motilal Nehru National Institute of Technology, Allahabad, Prayagraj on 23.02.2024 to 25.02.2024. Dr. R. Arthy, S. Surya Ram, Saamir Gaffur Mohammed Yakubshah, M. Vinodhan, M. Vishal, "Cotton Guard: Revolutionizing Agriculture with Smart Disease Management for Enhanced Productivity and Sustainability", International Research Journal on Advanced Engineering Hub. Dr. R. Arthy, B. Bala Chibi Hariesh, K. Kabilesh, M. Vishal, A. Sandeep Joe, "Harvesting Intelligence: A Comprehensive Study on Transforming Aquaponic Agriculture with AI and IoT", International Journal on Recent and Innovation Trends in Computing and Communication - Scopus.

Represented that at least 50% of the faculty members should have SCI Publication.	**Partially Ratified.** S. Ramesh Babu, **R. Arthy**, L. Ivan Kenny Raj, "Retailers Buying Behaviour towards Edible Oil – An Emperical Study", Journal of Research Administration - Scopus. Sultan Ahmad, **Aghila Rajagopal,** Sudan Jha, Hikmal AM Abdeljaber, Jabeen Nazeer, "AI Based Secure Analytics of Clinical Data in Cloud Environment: Towards Smart Cities and Healthcare", Journal of Advances in Information Technology - Scopus. R.Rajprabu, T.Prathiba, **V.Deepapriya**, Arthy Rajkumar, **Rajkannan.C,** P.Ramalakshmi, "Transforming Pixels: Crafting a 3D Integer Discrete Cosine Transform for Advanced Image Compression", International Journal of Advanced Computer Science and Applications – Scopus.
Insisted to encourage faculty members with a cash award based on the impact factor of journals in which they publish paper.	Represented to college management. Rs. 2, 000/- is allotted to each staff member during each academic year.
Informed the faculty members to focus on high package offers.	Each faculty member has to identify 5 different companies with high package offers before this month end.
Seed money to faculty members for their research work.	Dr. R. Aghila, Ms. P. Mahalakshmi, Ms. V. Gayathri and Ms. S. Gayathri received the KCET Seed money granted "SpotCE - An App for Country Egg Detector", Rs. 27,000/-. Dr. R. Arthy, Ms. V. Deepa Priya and Ms. P. Kaviya received the KCET Seed money granted "College Campus Chatbot: An AI-Powered Virtual Assistant for Enhanced Campus Experience", Rs. 26,000/-.
Insisted to encourage students for their achievements in sports, project etc. by means of replacement of assignment.	5 marks for internal is allotted for students to participate in co-curricular and extra-curricular activities.

To create an Alumni fund for supporting students' growth.	Initiative has to be taken at college level.
The placement coordinator may provide a glimpse about company profile before the drive.	The students are advised to visit the company website before the drive. The Faculty Placement Coordinators also provide a glimpse about company.
Advised to start students club in organizing technical programs.	Yet to be implemented.
Motivated the faculty members to conduct online courses.	Yet to be implemented. Online videos for each subject are available. Rs. 5000/- is received for training students from The Standard Fireworks Rajaratnam College for Women, Sivakasi on "Mobile Application Development" and guiding the students in project development.
Mr S. Sivanesh Kumar Suggested the students to create Linked in profile and upload their activities	Linked in profile has been created already and agreed to insist the students to update their profile regularly.
Requested to include entrepreneur details in slide for presentation.	Entrepreneur details are included in presentation. Through Entrepreneurship Development Cell (EDC) many events are organized.
To initiate skill metric of the students from second year onwards so that their progress can be easily monitored.	5 marks for internal is allotted to improve the skill metric of the students
Represented that alumni may interact with the students to discuss about their job experience to know about the market.	Alumni guest lectures are regularly arranged in physical mode. Four lectures for each semester.
Mr. K. Manoganesh Informed students development programs shall be conducted by students itself. It creates a learning atmosphere among their peer groups.	Yet to be implemented. Placed students are guiding remaining students for their placement.
Suggested the students to know about migration projects since it is the hour of the need.	Alumni Er. Vishnu Raaj (2017 - 2021) working at ZOHO discussed the importance of migration projects.

Students should work in a company for a minimum of two years.	Most of the placed students are working for minimum two years and faculty members are giving guidance.	

5. **Report by NBA Coordinator**

Dr R.Arthy presented NBA Audit Report

Department of Information Technology has been accredited for the extension of three years by NBA :

- 2024 – 2025
- 2025 – 2026
- 2026 – 2027

S.No	Stakeholders' suggestions	Chairman's response
1	Dr. T.Senthil Kumar appreciated for extension of NBA accreditation (3 Years) He suggested to work for NBA Tier 1.	Suggestions will be implemented.

6. **Faculty Member's progress**

Mrs.V.Deepapriya – AP/IT & NBA Criterion V – In-charge, presented the achievements of the faculty members during the academic years 2023-2024.

Dr. E. Vakaimalar –HOD/IT

- Journal Publication (UGC Care)- 1
- Patent –1
- Scopus Publication –1 (Accepted)
- Conference Publication -1

Dr.R.Arthy AP/IT

- Scopus publication – 3 nos.
- Conference publication – 8 nos.
- Book chapter – 2 nos.
- Patent Publication – 2 nos.
- Copy Right - 2 nos.
- Wipro – Cloud Computing – Top 2
- NPTEL online Certification – AI in Marketing
- Seed money projects – 1 (completed), 1 (ongoing), 1 (applied)

Mrs V.Deepapriya AP/IT

- Patent Publication - 3
- Conference publication - 4
- Scopus publication – 1
- Book Chapter – 1

		• Copyright – 2 • Wipro – dot net Full stack - Mentor • Seed Money projects – 1 (completed), 1 (ongoing), 1 (applied) Mr. D. Vendhan AP/IT • Conference Publication - 2 • NPTEL online certification – Natural Language Processing • NPTEL Discipline Star Award 2K'23. Mr. C. Raj Kannan AP/IT • Conference publication - 1 • Patent publication – 3 • Scopus publication - 1 • NPTEL Online Certification – Introduction to IoT Mr.G.H.Ram Ganesh, AP/IT • NPTEL online Certification – Cyber Security and Privacy • Patent Published - 1 • Book Chapter – 1 • Conference publication - 1 Mrs.P.Mahalakshmi • Conference publication - 5 • Book publication - 2 • Patent published – 2 • Copyright - 2 • Infosys Certification – Artificial Intelligence Primer • Seed Money : 1 (ongoing) Ms. P. Priyadharshini • Patent publication – 1 Ms. V. Gayathri • NPTEL online Certification – Cyber Security and Privacy • Patent published - 2 • Book published - 1 • Conference - 3 • Seed Money : 1 (ongoing) Ms.R.Saranya Priyadharshini • Book published - 2 • Patent Published - 2 • Copy Right - 1 • Conference publication - 3 • Infosys Certification - Java Foundation Mrs. V.Deepapriya also presented that the faculty research details • Mr D.Vendhan have completed his final viva-voce and all PAC members are congratulated to him. • Mrs.V.Deepapriya, and Mrs.V.Gayathri have completed comprehensive viva-voce and waiting for journal acceptance. The following faulty members are Ph.D registered : • Mr. C. Raj Kannan AP/IT, • Mr.G.H.Ram Ganesh, AP/IT, • Mrs.P.Mahalakshmi, • Ms.R.Saranya Priyadharshini , and they are going to attend their First DC Meeting.

Mrs V.Deepapriya reported an analysis on Faculty Research Publications and Faculty FDP/NPTEL/Training/STTP/Certificate Courses of last two academic years. She also presented the achievements of the supporting faculty members

Mr.D.Singaraj - Technician completed the Udemy Certification on Cisco CCNA 200-301 –The Complete Guide to Getting Certified.

S.NO	Stakeholder's suggestions	Chairman's respone
1.	**Dr T.Senthilkumar:** **Faculty Profiles and Certifications:** Faculty members shall include completed certification courses rather than mentioning specialized areas. This will enhance transparency and credibility. **Faculty Area of Interest:** Faculty members shall now highlight their areas of interest or research focus instead of traditional specializations. **Faculty publication and research goals:** A comprehensive plan for faculty publications over the next two years shall be prepared to increase patents, publications, proposals, projects, and citations. Metrics such as impact factor and percentile to be emphasized for publications. **Integration of ERP:** Advised to include Enterprise Resource Planning (ERP) in PAC presentations and discussions to enhance operational efficiency and transparency. **Peer Interaction Sessions:** Suggested to conduct a workshop titled "How to Do Projects" will be organized for second and third-year students by final-year students to foster project management skills. **Faculty Achievements and Experience:** He opined to include detailed sections on past experiences, awards, projects, and academic achievements	Taken for consideration

				in faculty profile. **Publication Strategy:** Faculty members are encouraged to prioritize reputed journal publications over patents. Granting of patents will be pursued selectively. Publications should highlight metrics such as impact factor and percentile. **Funding for Copyrights:** Advised to get fund for the copyright from the government sectors. **Dataset Publication:** **S**uggested to combine the ideas from faculty and students to create a dataset, this can be published as a webpage on the internet, such as through IEEE. **International Conference Organization:** Opined that the department shall organize an international conference. **ERP Mobile App Development:** Suggested to convert the ERP system into a mobile app that allows students to view their attendance. Additionally, this app shall be marketed to other institutions as a ready-made solution to generate revenue. **Student Project Guidelines:** Advised the students need to individually focus on achievements that are deployable, demonstrable, and live projects, and file patents for their innovations. **Training for Non-teaching Staff:** Basic programming skill training sessions in languages such as C, Java, and Python shall be organized for non-teaching staff, particularly lab technicians.	
			2.	**Mr.S. Sivanesh kumar:** **Platform for Student and Faculty Work:** Suggested Faculty and Students shall upload their works in Github, webspace.com instead of blogspot.	Taken for consideration

		Hardware Assembly Language Workshop: A workshop on hardware assembly language shall be conducted for students with the assistance of supporting staff members to enhance practical skills.
7.	**Students Achievements**	Mrs S.Gayathri, NBA – Criterion IV In-charge, presented the student achievements batch wise: Rs 8 lakhs was granted for the MSME project proposal submitted by Ganesh Sudherson B (2019-23 Batch), guided by Mrs. P. Kaviya and Mr. C. Rajkannan, AP / IT **II year Achievements:** • Paper Presentation -2 (second prize) • Algo Vista-4(First prize) • Master Query Madness-2(Third prize) • Metaverse workshop-3(Phase1 and Phase 2) • Paper presentation-3(Cash award) • REPIT-4 (Third prize) • Pitch Deck-3 (Runner) • NSS-1 • Best Project Award-3 P Arun, S.SelvaBalaji, M Ashwin Kumar and Subash have participated in the National Level Hackathon conducted by Chaitanya Bharathi Institute of Technology in Hyderabad. **III year Students' Achievements** • P.Joe Selva Rakshan, G.S Balaji, M.Praveen Kumar appreciated for winning cash prize of Rs. 12,000 /- in the Mepco Ideathon'24 Contest guided by Dr R.Aghila,Prof/IT • S.Dharun, K.Akila, D.Charanya won First place in Poster presentation guided by Dr R.Arthy,AP/IT • B.Gomathy, I.Sudharsena appreciated for winning cash prize of Rs. 2,000 in the Mepco Ideathon'24 Contest guided by Mrs P.Kaviya, AP/IT And also she presented the following below to the PAC members

ACADEMIC YEAR	**2023-2024**
Conference Papers Published	38
Technical Contest	42
Workshop	28
Online Courses	104
Internship	121

S.No	Stakeholders' suggestions	Chairman's response
1	**Dr. T.Senthil Kumar :** **Incentives for Funded Projects:** Incentives shall be provided to faculty and student members involved in funded projects, proposals, and product developments to recognize and motivate their efforts. **Alumni Engagement:** Alumni can guide the final year projects. Faculty members shall be endorsed with practical insights and industry connections.	Taken this for consideration.
2.	**Mr.S.Sivanesh Kumar:** **Student Skill Assessment:** Structured rating system for evaluating students based on their programming language proficiency shall be implemented. This will facilitate better placement strategies. **Faculty-led Project Training:** Faculty members to mentor second-year students in project development, with a focus on identifying and refining the best projects for potential commercialization. **Industry Feedback Integration:** Increased communication with senior students to review industry needs and align curriculum accordingly.	Suggestions will be carried out in future.

			Er.K.Manoganesh suggested **Workshop on Resume Preparation:** A workshop on quality resume preparation, highlighting emerging certification courses and project experiences, shall be organized to enhance students' employability. **Student Clubs and Industry Projects:** Establishment of student clubs and engagement in industry-level projects shall be encouraged to foster practical skills and industry readiness. **Competitions and Internships:** Participation in hackathons, thinkothons, ideathons, and virtual internships shall be promoted to cultivate innovation and practical problem-solving skills among students.	Taken for consideration.
8.	**Chairperson Report**	Chairpersons of 2020 – 2024 (Outgone Batch) –Dr.R.Arthy, Final year- Mrs.G.Nivetha and Third year- Mrs.R.Saranya priyadharshini, Second year – Mrs.S.Gayathri reported the entire academic progress of their class students. The details include: • Analysis of higher secondary marks, cut off marks. • Semester wise pass percentage secured by the students. • Student Participation in co-curricular and extracurricular activities. • Batch wise action plans for this academic year. • Chair persons presented the Curricular Target Fixing - internal and external target for theory and Lab subjects, Co-Curricular and Extra-Curricular activities. In addition, the 2020 – 2024 batch chairperson Dr.R.Arthy presented the overall academic performance, CO-PO Attainment and action plan implemented for that batch students. The approval for changing the internal target for R2021 from B+ to B grade was presented to the BoS members and the members approved the same.		

The final year chairperson, Mrs.G.Nivetha presented the entire academic progress of IV year students (2021-2025 batch).

- Presented the KCET Autonomous Regulation 2021.
- Curriculum for the VII and VIII semester
- Number of Courses:62, Total Credits:165
- Presented the various domains – Network and Security, Product Development, Data Science for Honour and Minor courses.
- Students can earn over and above credits by taking value added courses, internship or in plant training
- Weightage of Internal marks and External marks
- Presented student achievements details and Industrial visits details.
- Detailed about the value added course carried out by the students.
- Action plans have been framed for academic year.

The Third Year Chairperson, Mrs.R.Saranya priyadharshini (2022-2026 batch).

- Curriculum for the V and VI semester
- And Presented academic performance and pass percentage for the previous semesters.
- Presented the various domains – Network and Security, Product Development, Data Science for Honour and Minor courses.
- Planned for inter subject topics, inter semester projects and product development.
- Detailed about the value added course carried out by the students in last semester 2023-2024(Even).
  1. Python for Data Science
  2. Web Application- Java Programming
  3. Reconnoitre in C
- Presented student achievements details and Industrial visits details.

The Second Year Chairperson, Mrs.S.Gayathri (2023-2027)

- Presented the KCET Autonomous Regulation 2021 Curriculum.
- Presented the academic performance of Semester – I

S.NO	Stakeholder's suggestions	Chairman's response
1	Dr.T.Senthil Kumar suggested the following points with respect to curriculum framework. **Curriculum Optimization:** • Reduction of subjects in the 7th semester and incorporation of lab courses for minor subject courses to enhance practical learning opportunities. • Reduce one subject in the 6th semester and introduce a 4-credit course focused on placement preparation.	Taken forward to the higher officials

<table>
<tr><td></td><td></td><td><table>
<tr><td></td><td>Mr. S.Sivanesh Kumar :
Suggested that for the course studied in one semester, advanced-level value-added courses should be arranged for the students.</td><td></td></tr>
<tr><td></td><td>Mr. K.Manoganesh:
Identify the best projects from the Full Stack and Android labs and advance them to the industry level.
And he suggested, in the 6th semester, during the Android application development lab, use the Flutter language to complete all the exercises.</td><td></td></tr>
</table></td><td></td></tr>
<tr><td>10.</td><td>Placement & Training</td><td colspan="3">Mr.C.Raj kannan, Placement Coordinator shared the
a) Students Placement Details for the past four years.
2017-2021 : 69%
2018-2022 : 89%
2019-2023 : 80%
2020-2024 : 75%
b) Placement training programmes - SkillRack platform, Aptitude, Programming, Verbal, Company Specific training, Communication provided for the Students by internal and external trainers.
c) Dr T.Senthil Kumar motivated the faculty members to work towards the placement with higher package. And he suggested that the placement data should include the number of companies visited our college.</td></tr>
</table>

<table>
<tr><td>11</td><td>R & D activities</td><td>Dr. R.Arthy, R & D coordinator presented about the Research Initiatives , activities and faculty publications made in the department. She also happily shared that our department has been recognized as Research center.

<table>
<tr><th>S.No</th><th>Stakeholder’s suggestions</th><th>Chairman’s response</th></tr>
<tr><td>1.</td><td>Dr.T.Senthil Kumar –
i. Carryout interdisciplinary research works.
ii. Suggested that all faculty members should participate mandatorily in workshops on research paper and proposal writing at the beginning of each academic year to enhance academic publication capabilities
iii. Suggested that forming research groups among students to undertake innovative projects should be proposed to foster the practical application of knowledge.
iv. Suggested that guidelines for submitting proposals through ISRO and other government agencies should be disseminated to facilitate funding for research and development activities</td><td rowspan="2">Taken for consideration</td></tr>
<tr><td>2.</td><td>Mr S.Sivanesh Kumar suggested to give Student projects such as. Gate pass systems, Leave management systems, and canteen online payment systems.</td></tr>
</table>
</td></tr>
<tr><td>12.</td><td>Industry Institute Interactions</td><td>Mr. C.Raj Kannan III cell coordinator presented the details about the
a) Industry Interaction has been arranged in the department.
b) Internships offered by various companies to the students.
c) Industrial Visits were arranged for the students.
d) Entrepreneur details
• Dr T.Senthil Kumar appreciated the entrepreneurs and exited to know their details.
e) Successfully Signed MOU’S with several industries</td></tr>
</table>

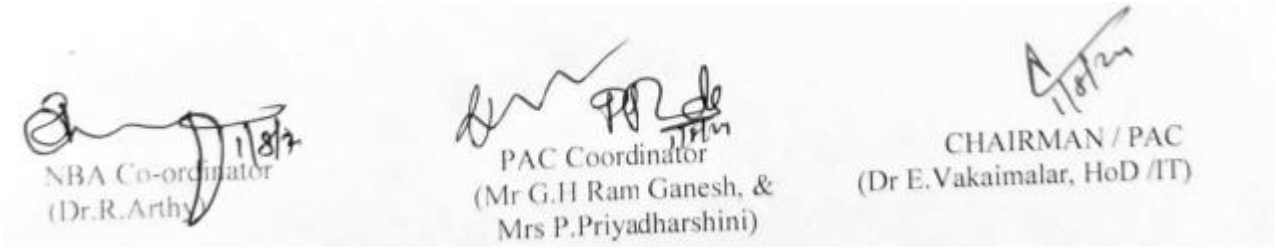
		f) The following value-added courses are planned to conduct for third-year students in this semester 2024-2025(ODD) : 1. **Deep Learning using Python** 2. **Internet of Things** 3. **Augmented Reality and Virtual Reality**
13.	**Discussion**	• Parents are satisfied with all the steps and measures taken by the department. • Dr T.Senthil Kumar and Mr S.Sivanesh Kumar advised the students to give importance to personal health care. • Mr.K.Manoganesh shared that the students should know the company details before placement. In addition, he insisted the students to strengthen the practical knowledge.
14.	**Vote of Thanks**	Mrs.P.Priyadharshini, AP/IT, PAC Coordinator proposed vote of thanks to all the members of PAC intimating that their contributions are highly valued and thanked for their eminence presence.

As a concluding remark, the Chairman of the PAC agreed to adopt the suggestions given by the members and to inculcate them in practice in the teaching learning process of department of Information Technology. She also informed the student PAC members to disseminate the observations they had made in this PAC meeting to their classmates. Chairpersons were also requested to facilitate the same.

Photos:

1. Chairman of PAC presenting the previous year report to the committee

2. External Stakeholder, Academician Dr. T. Senthil Kumar giving suggestions to the Criteria-5 Incharge Mrs V. Deepa priya, AP/IT



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Department of Information Technology

5. Three Member Committee Details

Value Added Course

on

Deep Learning using PYTHON

S. No.	Name	Designation	Role
1	Dr. E. Vakaimalar	Associate Professor	Head of the Department
2	Dr. R. Arthy	Assistant Professor	UG Coordinator
3	Mr. D. Vendhan	Assistant Professor	Senior Faculty Member

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DEPARTPMENT OF INFORMATION TECHNOLOGY

VALUE ADDED COURSES

THREE MEMBER COMMITTEE - MEETING MINUTES

Date: 26.07.2024

A meeting regarding the execution of value added course on "Deep Learning using PYTHON" from 05.08.2024 to 09.08.2024 was organized on 26.07.2024 among the three member committee of the value added course.

Venue: HoD Cabin **Time: 1.30 pm**

Members Present:

1. Dr. E. Vakaimalar , Associate Professor & Head/IT
2. Dr. R. Arthy, AP/IT
3. Mr. D. Vendhan, AP/IT

The minutes of the meeting is given below:

S. No.	Items discussed	Remarks
1	Accommodation, Hospitality for the Resource Person	It is planned to provide food inside the campus and hostel stay with the prior permission from Principal
2	Number of Students	III IT - 40
3	Internet Facility	Ensured the internet availability
4	Software Required	Venue is provided with sufficient number of good quality machines supporting installation of required software
5	Laptops	Students were advised to bring their own laptop if available
6	Photo Arrangement	Arranged (Geo Tagged)
7	Feedback Sessions	It is planned to receive feedback online via forms Oral feedback will be recorded after the session
8	Test	Students were intimated to be prepared for project presentation. Candidates with marks greater than 50 during assessment will be given VAC course completion certificate
9	Technicians Support	Ensured the availability of technicians
10	Venue	New IT Lab (Linux Block)
11	Attendance	Discussion on 100% attendance and it is decided that attendance entry in ERP by VAC Coordinator

VAC Coordinator [MR. G. M. RAM GANESH]

UG Coordinator 22/8/24 [DR. R. ARTHY]

HoD / IT 22/8/24

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using Python"
(05.08.2024 to 09.08.2024)

05.08.2024 (DAY -1)

PHOTOS

Department : Information Technology **Regulation : R 2021**

Year : III-IT A & B **Semester :**

VAC COORDINATOR
[S.M.RAM GANESH]
AP-IT

HOD

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using Python"
(05.08.2024 to 09.08.2024)

07.08.2024 (DAY -3)

PHOTOS

Department : Information Technology **Regulation : R 2021**

Year : III-IT A & B **Semester : V**

VAC COORDINATOR
[S.SRAM GANESH]
AP-IT

HOD

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using Python"
(05.08.2024 to 09.08.2024)

07.08.2024 (DAY -3)

PHOTOS

Department : Information Technology **Regulation : R 2021**

Year : III-IT A & B **Semester : V**

VAC COORDINATOR
[S.SRAM GANESH]
AP-IT

HOD

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using Python"
(05.08.2024 to 09.08.2024)

08.08.2024 (DAY -4)

PHOTOS

Department : Information Technology **Regulation : R 2021**

Year : III-IT A & B **Semester : V**

VAC COORDINATOR
[S.N.RAM GANESH]
AP-IT

HOD

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using Python"
(05.08.2024 to 09.08.2024)

09.08.2024 (DAY -5)

PHOTOS

Department : Information Technology **Regulation : R 2021**

Year : III-IT A & B **Semester : V**

VAC COORDINATOR
[S.M.RAM GANESH]
AP-IT

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using Python"
(05.08.2024 to 09.08.2024)

GROUP PHOTOS

Department : Information Technology **Regulation : R 2021**

Year : III-IT A & B **Semester : V**

VAC Coordinator
[G.RAM GANESH]
AP-IT

HOD

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S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms~~. KARTHIKEYAN. J **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 93 %

Mr.J Saravanan	Dr.E.Vakaimalar	Dr.S.Senthil
CEO - FOURSTEPS	HoD/IT	PRINCIPAL

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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms~~. RECAB JOHN SAMUEL .P **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 89 %

Mr.J Saravanan	Dr.E.Vakaimalar	Dr.S.Senthil
CEO - FOURSTEPS	HoD/IT	PRINCIPAL

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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms~~. BOOBALAN. M **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 97 %

Mr.J Saravanan	**Dr.E.Vakaimalar**	**Dr.S.Senthil**
CEO - FOURSTEPS	**HoD/IT**	**PRINCIPAL**

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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

~~Mr~~./Ms. MONIGA . P **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 92 %

Mr.J Saravanan	**Dr.E.Vakaimalar**	**Dr.S.Senthil**
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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

~~Mr.~~/Ms. ANISHA YASMIN . A **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 89 %

Mr.J Saravanan
CEO - FOURSTEPS

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CERTIFICATE
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This Certificate is presented to

~~Mr~~./Ms. MADHUBHAVANI. G **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 93 %

Mr.J Saravanan	**Dr.E.Vakaimalar**	**Dr.S.Senthil**
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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms~~. SESHAN. N **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 96 %

Mr.J Saravanan	**Dr.E.Vakaimalar**	**Dr.S.Senthil**
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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms~~. NAVEENKUMAR.S **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 87 %

Mr.J Saravanan
CEO - FOURSTEPS

Dr.E.Vakaimalar
HoD/IT

Dr.S.Senthil
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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

~~Mr~~./Ms. VISHNULAKSHMI . G **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 97 %

Mr.J Saravanan
CEO - FOURSTEPS

Dr.E.Vakaimalar
HoD/IT

Dr.S.Senthil
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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms.~~ NAVEEN PRABHAKARAN.G **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 90 %

Mr.J Saravanan	E. Vakaimalar	Dr.S.Senthil
CEO - FOURSTEPS	HoD/IT	PRINCIPAL

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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

~~Mr.~~/Ms. SANDHIYA . K **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 95 %

Mr.J Saravanan	Dr.E.Vakaimalar	Dr.S.Senthil
CEO - FOURSTEPS	HoD/IT	PRINCIPAL

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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms.~~ PRADEEPAN. B **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 89 %

Mr.J Saravanan	Dr.E.Vakaimalar	Dr.S.Senthil
CEO - FOURSTEPS	**HoD/IT**	**PRINCIPAL**

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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

~~Mr.~~/Ms. SAKTHI PRIYA. G **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 95 %

Mr.J Saravanan	**Dr.E.Vakaimalar**	**Dr.S.Senthil**
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S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

~~Mr.~~/Ms. EVANGELIN. D **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 90 %

Mr.J Saravanan
CEO - FOURSTEPS

Dr.E.Vakaimalar
HoD/IT

Dr.S.Senthil
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CERTIFICATE
OF COURSE COMPLETION

This Certificate is presented to

Mr./~~Ms~~. RICKY JOEL . J **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 87 %

Mr.J Saravanan
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Dr.E.Vakaimalar
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This Certificate is presented to

Mr./~~Ms~~. VINOTH KANNA . N . B **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 85 %

Mr.J Saravanan	**Dr.E.Vakaimalar**	**Dr.S.Senthil**
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This Certificate is presented to

~~Mr.~~/Ms. HARINI . U **of III year IT**

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Assessment Marks : 94 %

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This Certificate is presented to

Mr./~~Ms.~~ SELVA BALAJI. M **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 89 %

Mr.J Saravanan
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This Certificate is presented to

Mr./Ms. GAYATHIRI . B **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 98 %

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~~Mr~~./Ms. SHERIN. M **of III year IT**

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Assessment Marks : 91 %

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This Certificate is presented to

Mr./~~Ms.~~ KALIMUTHU. T **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 88 %

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~~Mr.~~/Ms. PONKARTHIGA. A **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 98 %

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Mr./~~Ms.~~ SATHEESH.M **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 92 %

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~~Mr~~./Ms. SUVETHA. C **of III year IT**

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Mr./~~Ms~~. SAKESH . R **of III year IT**

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~~Mr.~~/Ms. AKSHAYA . T **of III year IT**

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Mr./~~Ms~~. ANANTHA GANESH . R **of III year IT**

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Assessment Marks : 95 %

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Mr./~~Ms.~~ PAVAN . S **of III year IT**

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Assessment Marks : 90 %

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~~Mr~~./Ms. GOPIKA. B **of III year IT**

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This Certificate is presented to

~~Mr.~~/Ms. SRIDEEPALAKSHMI.S **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 92 %

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This Certificate is presented to

~~Mr~~./Ms. MANGALYA .T **of III year IT**

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~~Mr~~./Ms. SANTHIYA.K **of III year IT**

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Assessment Marks : 92 %

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This Certificate is presented to

~~Mr~~./Ms. ROHINI. V **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 91 %

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~~Mr~~./Ms. MAHA SWETHA. N **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 97 %

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~~Mr~~./Ms. JAYA SHREE . T **of III year IT**

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Assessment Marks : 94 %

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This Certificate is presented to

~~Mr.~~/Ms. HEMAVARSHINI. K **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 95 %

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~~Mr.~~/Ms. MONICA . T **of III year IT**

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Assessment Marks : 98 %

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This Certificate is presented to

Mr./~~Ms.~~ KARTHIKEYAN . M **of III year IT**

has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 87 %

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Mr./~~Ms.~~ JAYA SURYA . S **of III year IT**

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Assessment Marks : 89 %

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CERTIFICATE
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This Certificate is presented to

Mr./~~Ms~~. ARUN VIGNESH LINGAM.R **of III year IT** has successfully completed the Value Added Course offered by Four Steps Training Solutions on **"Deep Learning using Python"** from **05-08-2024 to 09-08-2024** in association with the Department of Information Technology, Kamaraj College of Engineering and Technology.

Assessment Marks : 85 %

Mr.J Saravanan	Dr.E.Vakaimalar	Dr.S.Senthil
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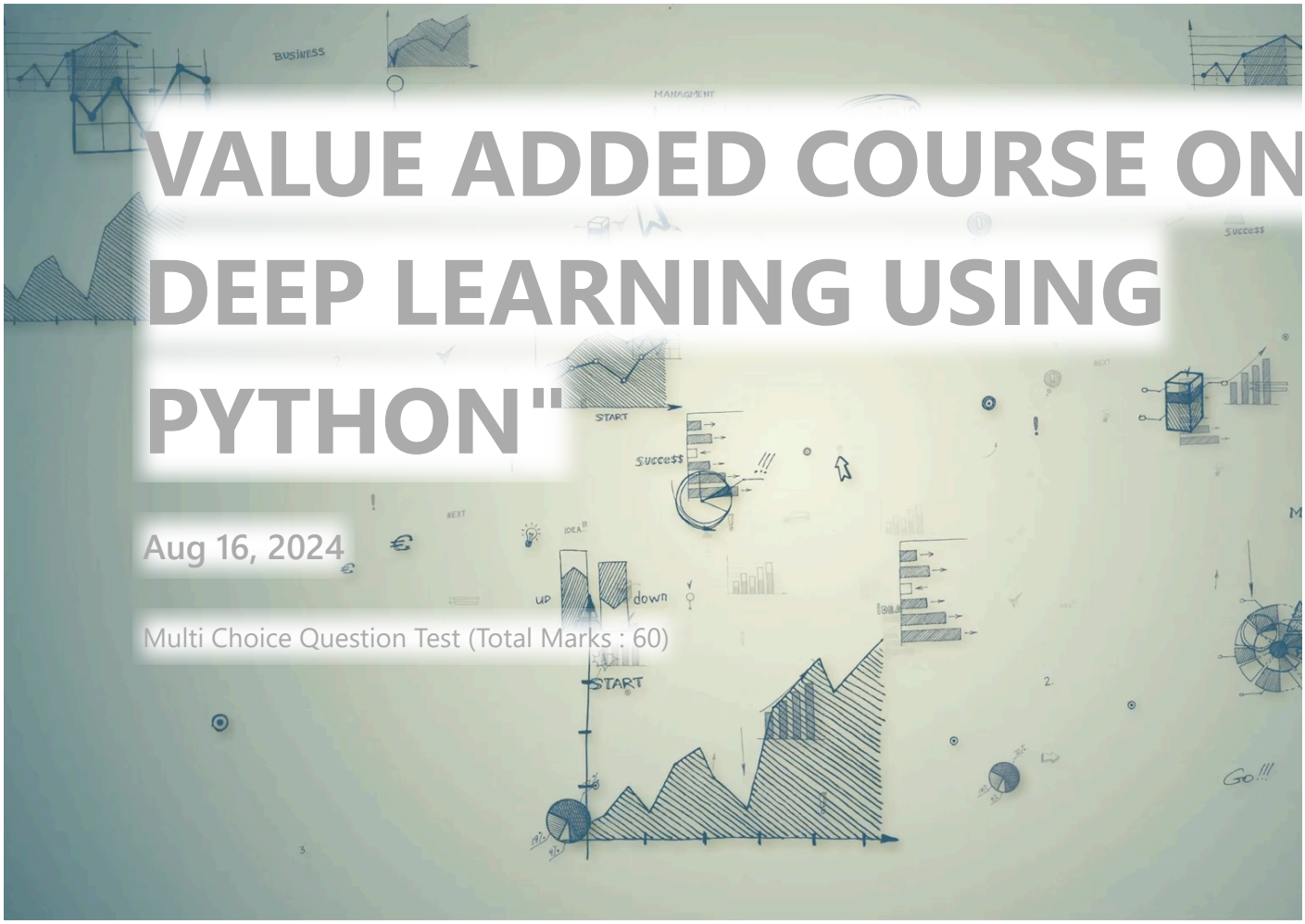

Total: 60 Points

* Required

* This form will record your name, please fill your name.

PART -A (30 * 1 = 30 MARKS)

1. What is the correct file extension for Python files? * (1 Point)

- a) .pt
- b) .py
- c) .pyt
- d) .python

2. How do you create a variable in Python? * (1 Point)

- a) var x = 10
- b) x = 10
- c) x : 10
- d) int x = 10

3. What is the output of print(2**3)? * (1 Point)

- a) 5
- b) 6
- c) 8
- d) 9

4. How do you create a list in Python? * (1 Point)

- a) {1, 2, 3}
- b) (1, 2, 3)
- c) [1, 2, 3]
- d) <1, 2, 3>

5. Which of the following is the correct way to import the pandas library? * (1 Point)

- a) import pandas as pd
- b) import panda as pd
- c) import pandaslib
- d) import pandas_df

6. How do you read a CSV file into a pandas DataFrame? * (1 Point)

- a) pandas.read_file()
- b) pd.read_csv()
- c) pd.load_csv()
- d) pandas.load_csv()

7. Which function is used to display the first few rows of a DataFrame? * (1 Point)

- a) df.first()
- b) df.head()
- c) df.top()
- d) df.start()

8. What does the df.info() function provide about a DataFrame? * (1 Point)

- a) Summarizes the DataFrame
- b) Displays the first few rows
- c) Describes the DataFrame
- d) Returns column names

9. What is the primary purpose of the NumPy library? * (1 Point)

- a) Data visualization
- b) Numerical computing
- c) Web development
- d) Text processing

10. Which of the following is the correct way to import the NumPy library? * (1 Point)

- a) import numpy as np
- b) import np as numpy
- c) import numpy as num
- d) import numpy_lib

11. What function is used to create an array in NumPy? * (1 Point)

- a) numpy.array()
- b) np.array()
- c) np.list()
- d) np.arr()

12. How do you create a NumPy array with values ranging from 0 to 9? * (1 Point)

- a) np.array([0,1,2,3,4,5,6,7,8,9])
- b) np.range(0,10)
- c) np.arange(10)
- d) np.linspace(0,9)

13. What is the primary purpose of the Matplotlib library? * (1 Point)

- a) Numerical computing
- b) Data visualization
- c) Machine learning
- d) Web development

14. Which of the following is the correct way to import the pyplot module from Matplotlib? * (1 Point)

- a) import matplotlib.pyplot as plt
- b) import pyplot as plt
- c) import matplotlib as plt
- d) import plt.pyplot

15. What is Seaborn primarily used for? * (1 Point)

- a) Web development
- b) Data visualization
- c) Numerical computing
- d) Machine learning

16. How do you set the aesthetic style of the plots in Seaborn? * (1 Point)

- a) sns.set_style()
- b) sns.style()
- c) sns.plot_style()
- d) sns.set_aesthetics()

17. How do you display a plot created using Matplotlib? * (1 Point)

- a) plt.display()
- b) plt.show()
- c) plt.draw()
- d) plt.open()

18. What is the key difference between supervised and unsupervised learning? * (1 Point)

- a) Supervised learning uses labeled data, unsupervised learning uses unlabeled data
- b) Both use labeled data
- c) Both use unlabeled data
- d) Supervised learning is slower

19. Which of the following is an example of supervised learning? * (1 Point)

- a) K-Means clustering
- b) Decision Tree
- c) Principal Component Analysis
- d) Hierarchical clustering

20. Which of the following is an example of unsupervised learning? * (1 Point)

- a) Logistic Regression
- b) K-Means clustering
- c) Support Vector Machine
- d) Random Forest

21. What is a common challenge in supervised learning? * (1 Point)

- a) Labeling large datasets
- b) Finding clusters
- c) Reducing dimensions
- d) Extracting features

22. What is the primary purpose of linear regression? * (1 Point)

- a) To classify data
- b) To cluster data
- c) To predict a continuous outcome
- d) To reduce dimensionality

23. Which of the following represents the equation of a simple linear regression model? * (1 Point)

- a) y = mx + b
- b) y = ax^2 + bx + c
- c) y = m(x)
- d) y = m + c

24. Which method is commonly used to estimate the coefficients in linear regression?
* (1 Point)

- a) Maximum Likelihood Estimation
- b) Gradient Descent
- c) Least Squares
- d) Clustering

25. Which of the following is a common application of linear regression? * (1 Point)

- a) Predicting customer churn
- b) Predicting house prices
- c) Classifying emails as spam
- d) Grouping similar items

26. What is the primary purpose of logistic regression? * (1 Point)

- a) Predicting a continuous outcome
- b) Classification of data
- c) Clustering data
- d) Dimensionality reduction

27. Which of the following is a common application of logistic regression? * (1 Point)

- a) Predicting house prices
- b) Email spam detection
- c) Customer segmentation
- d) Image compression

28. What is the primary purpose of the K-Means algorithm? * (1 Point)

- a) Classification
- b) Clustering
- c) Regression
- d) Data visualization

29. In K-Means, what does the "K" represent? * (1 Point)

- a) The number of clusters
- b) The number of features
- c) The number of iterations
- d) The number of data points

30. What is the primary purpose of deep learning? * (1 Point)

- a) Data visualization
- b) Natural language processing
- c) Feature extraction and complex pattern recognition
- d) Data clustering

PART-B (15* 2=30 MARKS)

31. Which type of neural network is commonly used for image classification tasks? (2 Points)

- ◯ a) Recurrent Neural Network (RNN)
- ◯ b) Convolutional Neural Network (CNN)
- ◯ c) Generative Adversarial Network (GAN)
- ◯ d) Long Short-Term Memory (LSTM)

32. What does "backpropagation" refer to in the context of neural networks? (2 Points)

- ◯ a) A method to initialize weights
- ◯ b) A technique for scaling data
- ◯ c) An algorithm for updating weights
- ◯ d) A clustering technique

33. What is a "layer" in a neural network? (2 Points)

- a) A collection of neurons that perform computations
- b) A method to initialize weights
- c) A type of activation function
- d) A data preprocessing step

34. What is the role of the "loss function" in a neural network? (2 Points)

- a) To calculate accuracy
- b) To measure the difference between predicted and actual values
- c) To initialize weights
- d) To normalize data

35. Which of the following is a commonly used activation function in deep learning? (2 Points)

- a) Softmax
- b) Euclidean Distance
- c) Principal Component Analysis
- d) K-Nearest Neighbors

36. What does the activation function in a neural network do? (2 Points)

- a) Initializes weights
- b) Normalizes data
- c) Introduces non-linearity into the model
- d) Calculates loss

37. Which algorithm is commonly used to optimize the weights in a neural network during training? (2 Points)

- a) K-Means
- b) Gradient Descent
- c) Principal Component Analysis (PCA)
- d) Apriori Algorithm

38. What is a common challenge when using the K-Means algorithm? (2 Points)

- a) Determining the number of clusters (K)
- b) Handling categorical data
- c) Overfitting the model
- d) Selecting features

39. What is the range of the output values in logistic regression? (2 Points)

- a) 0 to 1
- b) -1 to 1
- c) 0 to 100
- d) Any real number

40. Which of the following assumptions is NOT required for linear regression? (2 Points)

- a) Linearity
- b) Homoscedasticity
- c) Multicollinearity
- d) Independence of errors

41. What is the main data structure used by pandas to store tabular data? (2 Points)

- a) DataFrame
- b) Matrix
- c) Series
- d) List

42. What will be the output of print("Hello"[1])? (2 Points)

- a) H
- b) e
- c) l
- d) o

43. How do you start a comment in Python? (2 Points)

- a) //
- b) #
- c) /*
- d) %

44. Which data type is used to store True or False values in Python? (2 Points)

- a) int
- b) str
- c) bool
- d) float

45. Which of the following is a common evaluation metric for supervised learning? (2 Points)

- a) Accuracy
- b) Cluster Purity
- c) Silhouette Score
- d) Sum of Squared Errors

VAC COORDINATOR
[G.NARAM GANESH]
AP-IT

HOD

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using PYTHON"

05.08.2024 to 09.08.2024

Attendance Sheet

Sl. No.	Roll Number	Student Name	05.08.2024		06.08.2024		07.08.2024		08.08.2024		09.08.2024	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	22UIT001	KARTHIKEYAN J										
2	22UIT002	RECAB JOHN SAMUEL P										
3	22UIT004	BOOBALAN M										
4	22UIT006	NAVEEN PRABHAKARAN G										
5	22UIT007	SAKESH R										
6	22UIT010	SUVETHA C										
7	22UIT012	PON KARTHIGA A										
8	22UIT014	SATHEESH M										
9	22UIT015	KALIMUTHU T	AB	AB								
10	22UIT017	SHERIN M										
11	22UIT024	MAHASWETHA N										
12	22UIT026	GAYATHRI B										

Sl. No.	Roll Number	Student Name	03.08.2024		06.08.2024		07.08.2024		08.08.2024		09.08.2024	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
13	22UIT029	JAYA SURYA S										
14	22UIT030	SELVA BALAJI M										
15	22UIT031	HARINI U										
16	22UIT032	VINOTH KANNA N B										
17	22UIT033	KARHIKEYAN M										
18	22UIT037	RICKY JOEL J										
19	22UIT040	MONICA T										
20	22UIT041	EVANGELIN D										
21	22UIT042	HEMAVARSHINI K										
22	22UIT049	SAKTHI PRIYA G										
23	22UIT050	JAYASHREE T										
24	22UIT052	PRADEEPAN B										
25	22UIT055	ROHINI V										
26	22UIT057	SANDHIYA K										
27	22UIT059	SANTHIYA K										
28	22UIT067	VISHNULAKSHMI G										
29	22UIT077	MANGALYA T										
30	22UIT081	NAVEENKUMAR S										
31	22UIT082	SRIDEEPALAKSHMI S										
32	22UIT084	SUSHAN S										

Sl. No.	Roll Number	Student Name	05.08.2024		06.08.2024		07.08.2024		08.08.2024		09.08.2024	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
33	22UIT086	GOPIKA B										
34	22UIT087	MADHUBHAVANI G										
35	22UIT089	PAVAN S										
36	22UIT091	ANISHA YASMIN A										
37	22UIT092	ANANTHA GANESH R										
38	22UIT094	MONIGA P			-	-						
39	22UIT099	AKSHAYA T										
40	22UIT122	ARUN VIGNESH LINGAM R					AB	AB				
Total Strength			40	40	40	40	40	40	40	40	40	40
Number of Students Present			39	39	40	40	39	39	40	40	40	40
Number of Students Absent			01	01	NIL	NIL	01	01	NIL	NIL	NIL	NIL
Signature of Value Added Course Coordinator												

9/8/24
UG Coordinator

9/8/2024
HoD / IT

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S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course

Deep Learning using PYTHON

[05.08.2024 - 09.08.2024]

MCQ -Mark Statement

ID	Start time	Completion time	Email	Name	Total points
16	8-12-24 12:16:38	8-12-24 12:29:12	22uit001@kamarajengg.	KARTHIKEYAN.J	58
12	8-12-24 12:17:55	8-12-24 12:27:53	22uit002@kamarajengg.	RECAB JOHN SAMUEL.P	54
8	8-12-24 12:16:01	8-12-24 12:27:04	22uit004@kamarajengg.	BOOBALAN.M	57
13	8-12-24 12:18:31	8-12-24 12:28:56	22uit006@kamarajengg.	NAVEEN PRABHAKARAN.	58
9	8-12-24 12:22:04	8-12-24 12:27:08	22uit007@kamarajengg.	SAKESH.R	56
2	8-12-24 11:44:46	8-12-24 12:05:00	22uit010@kamarajengg.	SUVETHA.C	56
29	8-12-24 12:20:48	8-12-24 12:35:00	22uit012@kamarajengg.	PON KARTHIGA.A	58
14	8-12-24 12:24:05	8-12-24 12:29:02	22uit014@kamarajengg.	SATHEESH.M	60
36	8-12-24 12:24:09	8-12-24 12:38:35	22uit017@kamarajengg.	SHERIN.M	58
22	8-12-24 12:15:47	8-12-24 12:32:34	22uit018@kamarajengg.	SELVA KUMAR.R	58
20	8-1-24 17:14:04	8-12-24 12:32:22	22uit024@kamarajengg.	MAHA SWETHA.N	57
33	8-12-24 12:26:18	8-12-24 12:36:08	22uit026@kamarajengg.	GAYATHIRI.B	58
41	8-12-24 12:41:54	8-12-24 12:46:39	22uit029@kamarajengg.	JAYA SURYA.S	59
10	8-12-24 12:19:51	8-12-24 12:27:22	22uit030@kamarajengg.	SELVA BALAJI.M	59
23	8-12-24 12:15:11	8-12-24 12:33:19	22uit031@kamarajengg.	HARINI.U	56
39	8-12-24 12:35:54	8-12-24 12:41:53	22uit032@kamarajengg.	VINOTH KANNA.N.B	52
42	8-12-24 12:41:11	8-12-24 12:46:41	22uit033@kamarajengg.	KARHIKEYAN.M	57
11	8-12-24 12:20:36	8-12-24 12:27:28	22uit037@kamarajengg.	RICKY JOEL.J	57
32	8-12-24 12:22:47	8-12-24 12:36:08	22uit040@kamarajengg.	MONICA.T	58
31	8-12-24 12:31:50	8-12-24 12:35:57	22uit041@kamarajengg.	EVANGELIN.D	55
28	8-12-24 12:26:52	8-12-24 12:34:38	22uit042@kamarajengg.	HEMAVARSHINI.K	55
27	8-12-24 12:16:24	8-12-24 12:34:37	22uit049@kamarajengg.	SAKTHI PRIYA.G	55
35	8-12-24 12:21:14	8-12-24 12:38:08	22uit050@kamarajengg.	JAYASHREE.T	54
17	8-12-24 12:17:26	8-12-24 12:29:30	22uit052@kamarajengg.	PRADEEPAN.B	56

1	8-12-24 11:43:33	8-12-24 12:04:54 22uit055@kamarajengg. ROHINI.V	56
40	8-12-24 12:37:01	8-12-24 12:42:14 22uit057@kamarajengg. SANDHIYA.K	55
38	8-12-24 12:25:23	8-12-24 12:41:53 22uit059@kamarajengg. SANTHIYA.K	54
34	8-9-24 17:57:47	8-12-24 12:37:26 22uit067@kamarajengg. VISHNULAKSHMI.G	57
6	8-12-24 11:53:35	8-12-24 12:20:49 22uit077@kamarajengg. MANGALYA.T	60
19	8-12-24 12:23:16	8-12-24 12:31:10 22uit081@kamarajengg. NAVEENKUMAR.S	54
25	8-12-24 12:18:08	8-12-24 12:33:31 22uit082@kamarajengg. SRIDEEPALAKSHMI.S	52
15	8-12-24 12:18:55	8-12-24 12:29:08 22uit084@kamarajengg. SESHAN.N	56
24	8-12-24 12:20:55	8-12-24 12:33:19 22uit086@kamarajengg. GOPIKA.B	56
4	8-12-24 11:54:20	8-12-24 12:14:18 22uit087@kamarajengg. MADHUBHAVANI.G	58
18	8-12-24 12:19:41	8-12-24 12:29:50 22uit089@kamarajengg. PAVAN.S	57
26	8-12-24 12:20:24	8-12-24 12:34:19 22uit091@kamarajengg. ANISHA YASMIN.A	56
5	8-12-24 12:02:49	8-12-24 12:18:51 22uit092@kamarajengg. ANANTHA GANESH.R	60
37	8-12-24 12:25:09	8-12-24 12:41:50 22uit094@kamarajengg. MONIGA.P	54
21	8-12-24 12:19:32	8-12-24 12:32:34 22uit099@kamarajengg. AKSHAYA.T	58
30	8-12-24 12:29:28	8-12-24 12:35:45 22uit122@kamarajengg. ARUN VIGNESH LINGAM.	55

VAC COORDINATOR

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on

"Deep Learning using PYTHON"

[05.08.2024 - 09.08.2024]

				PROJECT -RUBRICS				
Sl. No.	Roll Number	Register Number	Student Name	Defining the Problem Statement and Objective (10 Marks)	Importing the Dataset and Libraries (10 Marks)	Data Exploration (10 Marks)	Performing Data Analysis (10 Marks)	Total Marks (40 Marks)
1	22UIT001	920422205050	KARTHIKEYAN J	10	10	10	5	35
2	22UIT002	920422205083	RECAB JOHN SAMUEL P	10	10	10	5	35
3	22UIT004	920422205020	BOOBALAN M	10	10	10	10	40
4	22UIT006	920422205070	NAVEEN PRABHAKARAN G	10	10	7	5	32
5	22UIT007	920422205088	SAKESH R	10	10	7	5	32
6	22UIT010	920422205112	SUVETHA C	10	10	7	6	33
7	22UIT012	920422205076	PON KARTHIGA A	10	10	10	10	40

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8	22UIT014	920422205096	SATHEESH M	10	10	7	5	32
9	22UIT015	920422205046	KALIMUTHU T	10	10	5	5	30
10	22UIT017	920422205103	SHERIN M	10	10	7	6	33
11	22UIT024	920422205057	MAHA SWETHA N	10	10	10	10	40
12	22UIT026	920422205029	GAYATHIRI B	10	10	10	10	40
13	22UIT029	920422205041	JAYA SURYA S	10	10	5	5	30
14	22UIT030	920422205097	SELVA BALAJI M	10	10	5	5	30
15	22UIT031	920422205035	HARINI U	10	10	9	9	38
16	22UIT032	920422205117	VINOTH KANNA N B	10	10	5	5	30
17	22UIT033	920422205048	KARHIKEYAN M	10	10	5	5	30
18	22UIT037	920422205084	RICKY JOEL J	10	10	5	5	30
19	22UIT040	920422205062	MONICA T	10	10	10	10	40
20	22UIT041	920422205027	EVANGELIN D	10	10	10	5	35
21	22UIT042	920422205038	HEMAVARSHINI K	10	10	10	10	40
22	22UIT049	920422205089	SAKTHI PRIYA G	10	10	10	10	40
23	22UIT050	920422205042	JAYASHREE T	10	10	10	10	40
24	22UIT052	920422205078	PRADEEPAN B	10	10	7	6	33
25	22UIT055	920422205087	ROHINI V	10	10	10	5	35
26	22UIT057	920422205090	SANDHIYA K	10	10	10	10	40

FOURSTEPS TRAINING SOLUTIONS PVT LTD CHENNAI

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Foursteps TRAINING SOLUTIONS CIN : U80901TN2013PTC092934

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27	22UIT059	920422205092	SANTHIYA K	10	10	9	9	38
28	22UIT067	920422205118	VISHNULAKSHMI G	10	10	10	10	40
29	22UIT077	920422205059	MANGALYA T	10	10	10	5	35
30	22UIT081	920422205071	NAVEENKUMAR S	10	10	7	6	33
31	22UIT082	920422205106	SRIDEEPALAKSHMI S	10	10	10	10	40
32	22UIT084	920422205101	SESHAN N	10	10	10	10	40
33	22UIT086	920422205032	GOPIKA B	10	10	10	10	40
34	22UIT087	920422205056	MADHUBHAVANI G	10	10	10	5	35
35	22UIT089	920422205075	PAVAN S	10	10	7	6	33
36	22UIT091	920422205012	ANISHA YASMIN A	10	10	7	6	33
37	22UIT092	920422205011	ANANTHA GANESH R	10	10	10	5	35
38	22UIT094	920422205063	MONIGA P	10	10	9	9	38
39	22UIT099	920422205009	AKSHAYA T	10	10	10	10	40
40	22UIT122	920422205303	ARUN VIGNESH LINGAM R	10	10	5	5	30

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VAC Trainer

VAC Co-ordinator 20/08/24

HOD / IT 20/8/2024

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DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on

"Deep Learning using PYTHON"

[05.08.2024 - 09.08.2024]

Mark Statement

Department : Information Technology **Regulation** : R 2021

Year : III **Semester** : V

Sl. No.	Roll Number	Register Number	Name	Internal Marks	External Marks	Total [100]
				Project Report [40]	MCQs [60]	
1	22UIT001	920422205050	KARTHIKEYAN J	35	58	93
2	22UIT002	920422205083	RECAB JOHN SAMUEL P	35	54	89
3	22UIT004	920422205020	BOOBALAN M	40	57	97
4	22UIT006	920422205070	NAVEEN PRABHAKARAN G	32	58	90
5	22UIT007	920422205088	SAKESH R	32	56	88
6	22UIT010	920422205112	SUVETHA C	33	56	89
7	22UIT012	920422205076	PON KARTHIGA A	40	58	98
8	22UIT014	920422205096	SATHEESH M	32	60	92
9	22UIT015	920422205046	KALIMUTHU T	30	58	88
10	22UIT017	920422205103	SHERIN M	33	58	91
11	22UIT024	920422205057	MAHA SWETHA N	40	57	97
12	22UIT026	920422205029	GAYATHIRI B	40	58	98

Sl. No.	Roll Number	Register Number	Name	Internal Marks	External Marks	Total [100]
				Project Report [40]	MCQs [60]	
13	22UIT029	920422205041	JAYA SURYA S	30	59	89
14	22UIT030	920422205097	SELVA BALAJI M	30	59	89
15	22UIT031	920422205035	HARINI U	38	56	94
16	22UIT032	920422205117	VINOTH KANNA N B	30	55	85
17	22UIT033	920422205048	KARHIKEYAN M	30	57	87
18	22UIT037	920422205084	RICKY JOEL J	30	57	87
19	22UIT040	920422205062	MONICA T	40	58	98
20	22UIT041	920422205027	EVANGELIN D	35	55	90
21	22UIT042	920422205038	HEMAVARSHINI K	40	55	95
22	22UIT049	920422205089	SAKTHI PRIYA G	40	55	95
23	22UIT050	920422205042	JAYASHREE T	40	54	94
24	22UIT052	920422205078	PRADEEPAN B	33	56	89
25	22UIT055	920422205087	ROHINI V	35	56	91
26	22UIT057	920422205090	SANDHIYA K	40	55	95
27	22UIT059	920422205092	SANTHIYA K	38	54	92
28	22UIT067	920422205118	VISHNULAKSHMI G	40	57	97
29	22UIT077	920422205059	MANGALYA T	35	60	95
30	22UIT081	920422205071	NAVEENKUMAR S	33	54	87
31	22UIT082	920422205106	SRIDEEPALAKSHMI S	40	52	92
32	22UIT084	920422205101	SESHAN N	40	56	96

CHENNAI

Sl. No.	Roll Number	Register Number	Name	Internal Marks	External Marks	Total [100]
				Project Report [40]	MCQs [60]	
33	22UIT086	920422205032	GOPIKA B	40	56	96
34	22UIT087	920422205056	MADHUBHAVANI G	35	58	93
35	22UIT089	920422205075	PAVAN S	33	57	90
36	22UIT091	920422205012	ANISHA YASMIN A	33	56	89
37	22UIT092	920422205011	ANANTHA GANESH R	35	60	95
38	22UIT094	920422205063	MONIGA P	38	54	92
39	22UIT099	920422205009	AKSHAYA T	40	58	98
40	22UIT122	920422205303	ARUN VIGNESH LINGAM R	30	55	85

FOURSTEPS TRAINING SOLUTIONS PVT LTD CHENNAI

VAC Trainer

20.8.24 20/08/24

VAC Coordinator

20/8/24

HoD / IT

29/8/24

Dean (Academic Courses)

VALUE ADDED COURSE ON " DEEP LEARNING USING PYTHON"

40 Responses | 55.8 Average Score | Active Status

1. What is the correct file extension for Python files? (1 point)
95% of respondents (38 of 40) answered this question correctly.

a) .pt	2	
b) .py	38	✓
c) .pyt	0	
d) .python	0	

2. How do you create a variable in Python? (1 point)
93% of respondents (37 of 40) answered this question correctly.

a) var x = 10	2	
b) x = 10	37	✓
c) x : 10	0	
d) int x = 10	1	

3. What is the output of print(2**3)? (1 point)
93% of respondents (37 of 40) answered this question correctly.

a) 5	0	
b) 6	3	
c) 8	37	✓
d) 9	0	

4. How do you create a list in Python? (1 point)
95% of respondents (38 of 40) answered this question correctly.

a) {1, 2, 3}	0	
b) (1, 2, 3)	2	
c) [1, 2, 3]	38	✓
d) <1, 2, 3>	0	

5. Which of the following is the correct way to import the pandas library? (1 point)
98% of respondents (39 of 40) answered this question correctly.

a) import pandas as pd	39	✓
b) import panda as pd	1	
c) import pandaslib	0	
d) import pandas_df	0	

6. How do you read a CSV file into a pandas DataFrame? (1 point)
100% of respondents (40 of 40) answered this question correctly.

a) pandas.read_file()	0	
b) pd.read_csv()	40	✓
c) pd.load_csv()	0	
d) pandas.load_csv()	0	

7. Which function is used to display the first few rows of a DataFrame? (1 point)
95% of respondents (38 of 40) answered this question correctly.

a) df.first()	0	
b) df.head()	38	✓
c) df.top()	2	
d) df.start()	0	

8. What does the df.info() function provide about a DataFrame? (1 point)
98% of respondents (39 of 40) answered this question correctly.

a) Summarizes the DataFrame	39	✓
b) Displays the first few rows	0	
c) Describes the DataFrame	1	
d) Returns column names	0	

9. What is the primary purpose of the NumPy library? (1 point)
93% of respondents (37 of 40) answered this question correctly.

a) Data visualization	2	
b) Numerical computing	37	✓
c) Web development	1	
d) Text processing	0	

10. Which of the following is the correct way to import the NumPy library? (1 point)
100% of respondents (40 of 40) answered this question correctly.

a) import numpy as np	40	✓
b) import np as numpy	0	
c) import numpy as num	0	
d) import numpy_lib	0	

11. What function is used to create an array in NumPy? (1 point)
95% of respondents (38 of 40) answered this question correctly.

a) numpy.array()	1	
b) np.array()	38	✓
c) np.list()	0	
d) np.arr()	1	

12. How do you create a NumPy array with values ranging from 0 to 9? (1 point)

83% of respondents (33 of 40) answered this question correctly.

a) np.array([0,1,2,3,4,5,6,7,8,9])	0	
b) np.range(0,10)	7	
c) np.arange(10)	33	✓
d) np.linspace(0,9)	0	

13. What is the primary purpose of the Matplotlib library? (1 point)

95% of respondents (38 of 40) answered this question correctly.

a) Numerical computing	2	
b) Data visualization	38	✓
c) Machine learning	0	
d) Web development	0	

14. Which of the following is the correct way to import the pyplot module from Matplotlib? (1 point)

98% of respondents (39 of 40) answered this question correctly.

a) import matplotlib.pyplot as plt	39	✓
b) import pyplot as plt	1	
c) import matplotlib as plt	0	
d) import plt.pyplot	0	

15. What is Seaborn primarily used for? (1 point)

93% of respondents (37 of 40) answered this question correctly.

a) Web development	2	
b) Data visualization	37	✓
c) Numerical computing	0	
d) Machine learning	1	

16. How do you set the aesthetic style of the plots in Seaborn? (1 point)

98% of respondents (39 of 40) answered this question correctly.

a) sns.set_style()	39	✓
b) sns.style()	0	
c) sns.plot_style()	1	
d) sns.set_aesthetics()	0	

17. How do you display a plot created using Matplotlib? (1 point)

93% of respondents (37 of 40) answered this question correctly.

a) plt.display()	1	
b) plt.show()	37	✓
c) plt.draw()	0	
d) plt.open()	2	

18. What is the key difference between supervised and unsupervised learning? (1 point)

95% of respondents (38 of 40) answered this question correctly.

a) Supervised learning uses labe...	38	✓
b) Both use labeled data	2	
c) Both use unlabeled data	0	
d) Supervised learning is slower	0	

19. Which of the following is an example of supervised learning? (1 point)

95% of respondents (38 of 40) answered this question correctly.

a) K-Means clustering	1	
b) Decision Tree	38	✓
c) Principal Component Analysis	1	
d) Hierarchical clustering	0	

20. Which of the following is an example of unsupervised learning? (1 point)

100% of respondents (40 of 40) answered this question correctly.

a) Logistic Regression	0	
b) K-Means clustering	40	✓
c) Support Vector Machine	0	
d) Random Forest	0	

21. What is a common challenge in supervised learning? (1 point)

88% of respondents (35 of 40) answered this question correctly.

a) Labeling large datasets	35	✓
b) Finding clusters	1	
c) Reducing dimensions	2	
d) Extracting features	2	

22. What is the primary purpose of linear regression? (1 point)

85% of respondents (34 of 40) answered this question correctly.

a) To classify data	2	
b) To cluster data	4	
c) To predict a continuous outco...	34	✓
d) To reduce dimensionality	0	

23. Which of the following represents the equation of a simple linear regression model? (1 point)

98% of respondents (39 of 40) answered this question correctly.

a) y = mx + b	39	✓
b) y = ax^2 + bx + c	1	
c) y = m(x)	0	
d) y = m + c	0	

24. Which method is commonly used to estimate the coefficients in linear regression? (1 point)

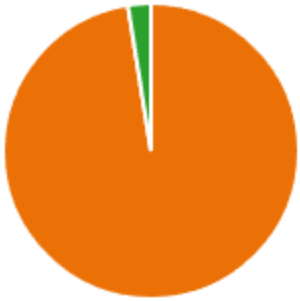
93% of respondents (37 of 40) answered this question correctly.

a) Maximum Likelihood Estimati...	0	
b) Gradient Descent	2	
c) Least Squares	37	✓
d) Clustering	1	

25. Which of the following is a common application of linear regression? (1 point)

98% of respondents (39 of 40) answered this question correctly.

a) Predicting customer churn	0	
b) Predicting house prices	39	✓
c) Classifying emails as spam	1	
d) Grouping similar items	0	



26. What is the primary purpose of logistic regression? (1 point)

93% of respondents (37 of 40) answered this question correctly.

a) Predicting a continuous outc...	3	
b) Classification of data	37	✓
c) Clustering data	0	
d) Dimensionality reduction	0	

27. Which of the following is a common application of logistic regression? (1 point)

88% of respondents (35 of 40) answered this question correctly.

a) Predicting house prices	2	
b) Email spam detection	35	✓
c) Customer segmentation	2	
d) Image compression	1	

28. What is the primary purpose of the K-Means algorithm? (1 point)

93% of respondents (37 of 40) answered this question correctly.

a) Classification	1	
b) Clustering	37	✓
c) Regression	2	
d) Data visualization	0	

29. In K-Means, what does the "K" represent? (1 point)

95% of respondents (38 of 40) answered this question correctly.

a) The number of clusters	38	✓
b) The number of features	0	
c) The number of iterations	2	
d) The number of data points	0	

30. What is the primary purpose of deep learning? (1 point)

85% of respondents (34 of 40) answered this question correctly.

a) Data visualization	2	
b) Natural language processing	3	
c) Feature extraction and compl...	34	✓
d) Data clustering	1	

31. Which type of neural network is commonly used for image classification tasks? (2 points)

90% of respondents (36 of 40) answered this question correctly.

a) Recurrent Neural Network (R...	3	
b) Convolutional Neural Networ...	36	✓
c) Generative Adversarial Netwo...	0	
d) Long Short-Term Memory (LS...	1	

32. What does "backpropagation" refer to in the context of neural networks? (2 points)

93% of respondents (37 of 40) answered this question correctly.

a) A method to initialize weights	2	
b) A technique for scaling data	0	
c) An algorithm for updating we...	37	✓
d) A clustering technique	1	

33. What is a "layer" in a neural network? (2 points)

95% of respondents (38 of 40) answered this question correctly.

a) A collection of neurons that p...	38	✓
b) A method to initialize weights	0	
c) A type of activation function	2	
d) A data preprocessing step	0	

34. What is the role of the "loss function" in a neural network? (2 points)

93% of respondents (37 of 40) answered this question correctly.

a) To calculate accuracy	1	
b) To measure the difference be...	37	✓
c) To initialize weights	1	
d) To normalize data	1	

35. Which of the following is a commonly used activation function in deep learning? (2 points)

93% of respondents (37 of 40) answered this question correctly.

a) Softmax	37	✓
b) Euclidean Distance	1	
c) Principal Component Analysis	1	
d) K-Nearest Neighbors	1	

36. What does the activation function in a neural network do? (2 points)

93% of respondents (37 of 40) answered this question correctly.

a) Initializes weights	2	
b) Normalizes data	1	
c) Introduces non-linearity into t...	37	✓
d) Calculates loss	0	

37. Which algorithm is commonly used to optimize the weights in a neural network during training? (2 points)

95% of respondents (38 of 40) answered this question correctly.

a) K-Means	0	
b) Gradient Descent	38	✓
c) Principal Component Analysis...	0	
d) Apriori Algorithm	2	

38. What is a common challenge when using the K-Means algorithm? (2 points)

95% of respondents (37 of 39) answered this question correctly.

a) Determining the number of cl...	37	✓
b) Handling categorical data	2	
c) Overfitting the model	0	
d) Selecting features	0	

39. What is the range of the output values in logistic regression? (2 points)

98% of respondents (39 of 40) answered this question correctly.

a) 0 to 1	39	✓
b) -1 to 1	0	
c) 0 to 100	0	
d) Any real number	1	

40. Which of the following assumptions is NOT required for linear regression? (2 points)

93% of respondents (37 of 40) answered this question correctly.

a) Linearity	1	
b) Homoscedasticity	1	
c) Multicollinearity	37	✓
d) Independence of errors	1	

41. What is the main data structure used by pandas to store tabular data? (2 points)

100% of respondents (40 of 40) answered this question correctly.

a) DataFrame	40	✓
b) Matrix	0	
c) Series	0	
d) List	0	

42. What will be the output of print("Hello"[1])? (2 points)

100% of respondents (40 of 40) answered this question correctly.

a) H	0	
b) e	40	✓
c) l	0	
d) o	0	

43. How do you start a comment in Python? (2 points)

95% of respondents (38 of 40) answered this question correctly.

a) //	0	
b) #	38	✓
c) /*	2	
d) %	0	

44. Which data type is used to store True or False values in Python? (2 points)

90% of respondents (36 of 40) answered this question correctly.

a) int	1	
b) str	2	
c) bool	36	✓
d) float	1	

45. Which of the following is a common evaluation metric for supervised learning? (2 points)

68% of respondents (27 of 40) answered this question correctly.

a) Accuracy	27	✓
b) Cluster Purity	10	
c) Silhouette Score	2	
d) Sum of Squared Errors	1	

VAC COORDINATOR
[G.N.R.M GANESH]
AP-IT

HOD

Review: VALUE ADDED COURSE ON " DEEP LEARNING USING PYTHON"

Respondent			
6	MANGALYA.T	27:14 Time to complete	60/60 Points

PART -A (30 * 1 = 30 MARKS)

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

1. What is the correct file extension for Python files? *

- a) .pt
- b) .py ✓
- c) .pyt
- d) .python

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

2. How do you create a variable in Python? *

- a) var x = 10
- b) x = 10 ✓
- c) x : 10
- d) int x = 10

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

3. What is the output of print(2**3)? *

- a) 5
- b) 6
- c) 8 ✓
- d) 9

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

4. How do you create a list in Python? *

- a) {1, 2, 3}
- b) (1, 2, 3)
- c) [1, 2, 3] ✓
- d) <1, 2, 3>

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

5. Which of the following is the correct way to import the pandas library? *

- a) import pandas as pd ✓
- b) import panda as pd
- c) import pandaslib
- d) import pandas_df

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

6. How do you read a CSV file into a pandas DataFrame? *

- a) pandas.read_file()
- b) pd.read_csv() ✓
- c) pd.load_csv()
- d) pandas.load_csv()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

7. Which function is used to display the first few rows of a DataFrame? *

- a) df.first()
- b) df.head() ✓
- c) df.top()
- d) df.start()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

8. What does the df.info() function provide about a DataFrame? *

- (●) a) Summarizes the DataFrame ✓
- ( ) b) Displays the first few rows
- ( ) c) Describes the DataFrame
- ( ) d) Returns column names

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

9. What is the primary purpose of the NumPy library? *

- ( ) a) Data visualization
- (●) b) Numerical computing ✓
- ( ) c) Web development
- ( ) d) Text processing

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

10. Which of the following is the correct way to import the NumPy library? *

- [x] a) import numpy as np ✓
- [ ] b) import np as numpy
- [ ] c) import numpy as num
- [ ] d) import numpy_lib

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

11. What function is used to create an array in NumPy? *

- [ ] a) numpy.array()
- [x] b) np.array() ✓
- [ ] c) np.list()
- [ ] d) np.arr()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

12. How do you create a NumPy array with values ranging from 0 to 9? *

- a) np.array([0,1,2,3,4,5,6,7,8,9])
- b) np.range(0,10)
- c) np.arange(10) ✓
- d) np.linspace(0,9)

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

13. What is the primary purpose of the Matplotlib library? *

- a) Numerical computing
- b) Data visualization ✓
- c) Machine learning
- d) Web development

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

14. Which of the following is the correct way to import the pyplot module from Matplotlib? *

- (●) a) import matplotlib.pyplot as plt ✓
- ( ) b) import pyplot as plt
- ( ) c) import matplotlib as plt
- ( ) d) import plt.pyplot

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

15. What is Seaborn primarily used for? *

- ( ) a) Web development
- (●) b) Data visualization ✓
- ( ) c) Numerical computing
- ( ) d) Machine learning

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

16. How do you set the aesthetic style of the plots in Seaborn? *

- (●) a) sns.set_style() ✓
- ( ) b) sns.style()
- ( ) c) sns.plot_style()
- ( ) d) sns.set_aesthetics()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

17. How do you display a plot created using Matplotlib? *

- ( ) a) plt.display()
- (●) b) plt.show() ✓
- ( ) c) plt.draw()
- ( ) d) plt.open()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

18. What is the key difference between supervised and unsupervised learning? *

- (●) a) Supervised learning uses labeled data, unsupervised learning uses unlabeled data ✓
- ( ) b) Both use labeled data
- ( ) c) Both use unlabeled data
- ( ) d) Supervised learning is slower

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

19. Which of the following is an example of supervised learning? *

- ( ) a) K-Means clustering
- (●) b) Decision Tree ✓
- ( ) c) Principal Component Analysis
- ( ) d) Hierarchical clustering

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

20. Which of the following is an example of unsupervised learning? *

- a) Logistic Regression
- b) K-Means clustering ✓
- c) Support Vector Machine
- d) Random Forest

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

21. What is a common challenge in supervised learning? *

- a) Labeling large datasets ✓
- b) Finding clusters
- c) Reducing dimensions
- d) Extracting features

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

22. What is the primary purpose of linear regression? *

- a) To classify data
- b) To cluster data
- c) To predict a continuous outcome ✓
- d) To reduce dimensionality

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

23. Which of the following represents the equation of a simple linear regression model? *

- a) y = mx + b ✓
- b) y = ax^2 + bx + c
- c) y = m(x)
- d) y = m + c

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

24. Which method is commonly used to estimate the coefficients in linear regression? *

- a) Maximum Likelihood Estimation
- b) Gradient Descent
- c) Least Squares ✓
- d) Clustering

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

25. Which of the following is a common application of linear regression? *

- a) Predicting customer churn
- b) Predicting house prices ✓
- c) Classifying emails as spam
- d) Grouping similar items

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

26. What is the primary purpose of logistic regression? *

- a) Predicting a continuous outcome
- b) Classification of data ✓
- c) Clustering data
- d) Dimensionality reduction

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

27. Which of the following is a common application of logistic regression? *

- a) Predicting house prices
- b) Email spam detection ✓
- c) Customer segmentation
- d) Image compression

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

28. What is the primary purpose of the K-Means algorithm? *

- a) Classification
- b) Clustering ✓
- c) Regression
- d) Data visualization

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

29. In K-Means, what does the "K" represent? *

- a) The number of clusters ✓
- b) The number of features
- c) The number of iterations
- d) The number of data points

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

30. What is the primary purpose of deep learning? *

- a) Data visualization
- b) Natural language processing
- c) Feature extraction and complex pattern recognition ✓
- d) Data clustering

PART-B (15* 2=30 MARKS)

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

31. Which type of neural network is commonly used for image classification tasks?

- a) Recurrent Neural Network (RNN)
- b) Convolutional Neural Network (CNN) ✓
- c) Generative Adversarial Network (GAN)
- d) Long Short-Term Memory (LSTM)

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

32. What does "backpropagation" refer to in the context of neural networks?

- a) A method to initialize weights
- b) A technique for scaling data
- c) An algorithm for updating weights ✓
- d) A clustering technique

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

33. What is a "layer" in a neural network?

- a) A collection of neurons that perform computations ✓
- b) A method to initialize weights
- c) A type of activation function
- d) A data preprocessing step

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

34. What is the role of the "loss function" in a neural network?

- a) To calculate accuracy
- b) To measure the difference between predicted and actual values ✓
- c) To initialize weights
- d) To normalize data

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

35. Which of the following is a commonly used activation function in deep learning?

- a) Softmax ✓
- b) Euclidean Distance
- c) Principal Component Analysis
- d) K-Nearest Neighbors

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

36. What does the activation function in a neural network do?

- a) Initializes weights
- b) Normalizes data
- c) Introduces non-linearity into the model ✓
- d) Calculates loss

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

37. Which algorithm is commonly used to optimize the weights in a neural network during training?

- a) K-Means
- b) Gradient Descent ✓
- c) Principal Component Analysis (PCA)
- d) Apriori Algorithm

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

38. What is a common challenge when using the K-Means algorithm?

- (●) a) Determining the number of clusters (K) ✓
- ( ) b) Handling categorical data
- ( ) c) Overfitting the model
- ( ) d) Selecting features

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

39. What is the range of the output values in logistic regression?

- (●) a) 0 to 1 ✓
- ( ) b) -1 to 1
- ( ) c) 0 to 100
- ( ) d) Any real number

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

40. Which of the following assumptions is NOT required for linear regression?

- a) Linearity
- b) Homoscedasticity
- c) Multicollinearity ✓
- d) Independence of errors

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

41. What is the main data structure used by pandas to store tabular data?

- a) DataFrame ✓
- b) Matrix
- c) Series
- d) List

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

42. What will be the output of print("Hello"[1])?

- a) H
- b) e ✓
- c) l
- d) o

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

43. How do you start a comment in Python?

- a) //
- b) # ✓
- c) /*
- d) %

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

44. Which data type is used to store True or False values in Python?

- a) int
- b) str
- c) bool ✓
- d) float

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

45. Which of the following is a common evaluation metric for supervised learning?

- a) Accuracy ✓
- b) Cluster Purity
- c) Silhouette Score
- d) Sum of Squared Errors

VAC COORDINATOR
[G.NARAM GANESH]
AP-IT

HOD

Review: VALUE ADDED COURSE ON " DEEP LEARNING USING PYTHON"

Respondent			
31	EVANGELIN.D	04:07 Time to complete	55/60 Points

PART -A (30 * 1 = 30 MARKS)

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

1. What is the correct file extension for Python files? *

- a) .pt
- b) .py ✓
- c) .pyt
- d) .python

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

2. How do you create a variable in Python? *

- a) var x = 10
- b) x = 10 ✓
- c) x : 10
- d) int x = 10

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

3. What is the output of print(2**3)? *

- a) 5
- b) 6
- c) 8 ✓
- d) 9

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

4. How do you create a list in Python? *

- a) {1, 2, 3}
- b) (1, 2, 3)
- c) [1, 2, 3] ✓
- d) <1, 2, 3>

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

5. Which of the following is the correct way to import the pandas library? *

- a) import pandas as pd ✓
- b) import panda as pd
- c) import pandaslib
- d) import pandas_df

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

6. How do you read a CSV file into a pandas DataFrame? *

- a) pandas.read_file()
- b) pd.read_csv() ✓
- c) pd.load_csv()
- d) pandas.load_csv()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

7. Which function is used to display the first few rows of a DataFrame? *

- a) df.first()
- b) df.head() ✓
- c) df.top()
- d) df.start()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

8. What does the df.info() function provide about a DataFrame? *

- (●) a) Summarizes the DataFrame ✓
- ( ) b) Displays the first few rows
- ( ) c) Describes the DataFrame
- ( ) d) Returns column names

✗ **Incorrect** 0/1 Points

0 / 1 pt
Auto-graded

9. What is the primary purpose of the NumPy library? *

- (●) a) Data visualization
- ( ) b) Numerical computing ✓
- ( ) c) Web development
- ( ) d) Text processing

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

10. Which of the following is the correct way to import the NumPy library? *

- [x] a) import numpy as np ✓
- [ ] b) import np as numpy
- [ ] c) import numpy as num
- [ ] d) import numpy_lib

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

11. What function is used to create an array in NumPy? *

- [ ] a) numpy.array()
- [x] b) np.array() ✓
- [ ] c) np.list()
- [ ] d) np.arr()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

12. How do you create a NumPy array with values ranging from 0 to 9? *

- a) np.array([0,1,2,3,4,5,6,7,8,9])
- b) np.range(0,10)
- c) np.arange(10) ✓
- d) np.linspace(0,9)

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

13. What is the primary purpose of the Matplotlib library? *

- a) Numerical computing
- b) Data visualization ✓
- c) Machine learning
- d) Web development

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

14. Which of the following is the correct way to import the pyplot module from Matplotlib? *

- (●) a) import matplotlib.pyplot as plt ✓
- ( ) b) import pyplot as plt
- ( ) c) import matplotlib as plt
- ( ) d) import plt.pyplot

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

15. What is Seaborn primarily used for? *

- ( ) a) Web development
- (●) b) Data visualization ✓
- ( ) c) Numerical computing
- ( ) d) Machine learning

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

16. How do you set the aesthetic style of the plots in Seaborn? *

- (●) a) sns.set_style() ✓
- ( ) b) sns.style()
- ( ) c) sns.plot_style()
- ( ) d) sns.set_aesthetics()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

17. How do you display a plot created using Matplotlib? *

- ( ) a) plt.display()
- (●) b) plt.show() ✓
- ( ) c) plt.draw()
- ( ) d) plt.open()

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

18. What is the key difference between supervised and unsupervised learning? *

- (●) a) Supervised learning uses labeled data, unsupervised learning uses unlabeled data ✓
- ( ) b) Both use labeled data
- ( ) c) Both use unlabeled data
- ( ) d) Supervised learning is slower

✗ **Incorrect** 0/1 Points

0 / 1 pt
Auto-graded

19. Which of the following is an example of supervised learning? *

- (●) a) K-Means clustering
- ( ) b) Decision Tree ✓
- ( ) c) Principal Component Analysis
- ( ) d) Hierarchical clustering

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

20. Which of the following is an example of unsupervised learning? *

- a) Logistic Regression
- b) K-Means clustering ✓
- c) Support Vector Machine
- d) Random Forest

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

21. What is a common challenge in supervised learning? *

- a) Labeling large datasets ✓
- b) Finding clusters
- c) Reducing dimensions
- d) Extracting features

✗ **Incorrect** 0/1 Points

0 / 1 pt
Auto-graded

22. What is the primary purpose of linear regression? *

- a) To classify data
- b) To cluster data
- c) To predict a continuous outcome ✓
- d) To reduce dimensionality

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

23. Which of the following represents the equation of a simple linear regression model? *

- a) y = mx + b ✓
- b) y = ax^2 + bx + c
- c) y = m(x)
- d) y = m + c

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

24. Which method is commonly used to estimate the coefficients in linear regression? *

- a) Maximum Likelihood Estimation
- b) Gradient Descent
- c) Least Squares ✓
- d) Clustering

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

25. Which of the following is a common application of linear regression? *

- a) Predicting customer churn
- b) Predicting house prices ✓
- c) Classifying emails as spam
- d) Grouping similar items

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

26. What is the primary purpose of logistic regression? *

- a) Predicting a continuous outcome
- b) Classification of data ✓
- c) Clustering data
- d) Dimensionality reduction

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

27. Which of the following is a common application of logistic regression? *

- a) Predicting house prices
- b) Email spam detection ✓
- c) Customer segmentation
- d) Image compression

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

28. What is the primary purpose of the K-Means algorithm? *

- a) Classification
- b) Clustering ✓
- c) Regression
- d) Data visualization

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

29. In K-Means, what does the "K" represent? *

- a) The number of clusters ✓
- b) The number of features
- c) The number of iterations
- d) The number of data points

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

30. What is the primary purpose of deep learning? *

- a) Data visualization
- b) Natural language processing
- c) Feature extraction and complex pattern recognition ✓
- d) Data clustering

PART-B (15* 2=30 MARKS)

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

31. Which type of neural network is commonly used for image classification tasks?

- a) Recurrent Neural Network (RNN)
- b) Convolutional Neural Network (CNN) ✓
- c) Generative Adversarial Network (GAN)
- d) Long Short-Term Memory (LSTM)

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

32. What does "backpropagation" refer to in the context of neural networks?

- a) A method to initialize weights
- b) A technique for scaling data
- c) An algorithm for updating weights ✓
- d) A clustering technique

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

33. What is a "layer" in a neural network?

- a) A collection of neurons that perform computations ✓
- b) A method to initialize weights
- c) A type of activation function
- d) A data preprocessing step

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

34. What is the role of the "loss function" in a neural network?

- a) To calculate accuracy
- b) To measure the difference between predicted and actual values ✓
- c) To initialize weights
- d) To normalize data

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

35. Which of the following is a commonly used activation function in deep learning?

- a) Softmax ✓
- b) Euclidean Distance
- c) Principal Component Analysis
- d) K-Nearest Neighbors

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

36. What does the activation function in a neural network do?

- a) Initializes weights
- b) Normalizes data
- c) Introduces non-linearity into the model ✓
- d) Calculates loss

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

37. Which algorithm is commonly used to optimize the weights in a neural network during training?

- a) K-Means
- b) Gradient Descent ✓
- c) Principal Component Analysis (PCA)
- d) Apriori Algorithm

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

38. What is a common challenge when using the K-Means algorithm?

- (●) a) Determining the number of clusters (K) ✓
- ( ) b) Handling categorical data
- ( ) c) Overfitting the model
- ( ) d) Selecting features

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

39. What is the range of the output values in logistic regression?

- (●) a) 0 to 1 ✓
- ( ) b) -1 to 1
- ( ) c) 0 to 100
- ( ) d) Any real number

✗ **Incorrect** 0/2 Points

0 / 2 pts
Auto-graded

40. Which of the following assumptions is NOT required for linear regression?

- a) Linearity
- b) Homoscedasticity
- c) Multicollinearity ✓
- d) Independence of errors

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

41. What is the main data structure used by pandas to store tabular data?

- a) DataFrame ✓
- b) Matrix
- c) Series
- d) List

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

42. What will be the output of print("Hello"[1])?

- a) H
- b) e ✓
- c) l
- d) o

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

43. How do you start a comment in Python?

- a) //
- b) # ✓
- c) /*
- d) %

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

44. Which data type is used to store True or False values in Python?

- a) int
- b) str
- c) bool ✓
- d) float

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

45. Which of the following is a common evaluation metric for supervised learning?

- a) Accuracy ✓
- b) Cluster Purity
- c) Silhouette Score
- d) Sum of Squared Errors

VAC COORDINATOR
[S.N.RAM GANESH]
AP-IT

HOD

Review: VALUE ADDED COURSE ON " DEEP LEARNING USING PYTHON"

Respondent			
25	SRIDEEPALAKSHMI.S	15:24 Time to complete	52/60 Points

PART -A (30 * 1 = 30 MARKS)

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

1. What is the correct file extension for Python files? *

- a) .pt
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- c) .pyt
- d) .python

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1 / 1 pt
Auto-graded

2. How do you create a variable in Python? *

- a) var x = 10
- b) x = 10 ✓
- c) x : 10
- d) int x = 10

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

3. What is the output of print(2**3)? *

- a) 5
- b) 6
- c) 8 ✓
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1 / 1 pt
Auto-graded

4. How do you create a list in Python? *

- a) {1, 2, 3}
- b) (1, 2, 3)
- c) [1, 2, 3] ✓
- d) <1, 2, 3>

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

5. Which of the following is the correct way to import the pandas library? *

- a) import pandas as pd ✓
- b) import panda as pd
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✓ **Correct** 1/1 Points

1 / 1 pt
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6. How do you read a CSV file into a pandas DataFrame? *

- a) pandas.read_file()
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- c) pd.load_csv()
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✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

7. Which function is used to display the first few rows of a DataFrame? *

- a) df.first()
- b) df.head() ✓
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1 / 1 pt
Auto-graded

8. What does the df.info() function provide about a DataFrame? *

- (●) a) Summarizes the DataFrame ✓
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1 / 1 pt
Auto-graded

9. What is the primary purpose of the NumPy library? *

- ( ) a) Data visualization
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Auto-graded

10. Which of the following is the correct way to import the NumPy library? *

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✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

11. What function is used to create an array in NumPy? *

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Auto-graded

12. How do you create a NumPy array with values ranging from 0 to 9? *

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1 / 1 pt
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13. What is the primary purpose of the Matplotlib library? *

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- ( ) b) import pyplot as plt
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1 / 1 pt
Auto-graded

16. How do you set the aesthetic style of the plots in Seaborn? *

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Auto-graded

18. What is the key difference between supervised and unsupervised learning? *

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✓ **Correct** 1/1 Points

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Auto-graded

19. Which of the following is an example of supervised learning? *

- ( ) a) K-Means clustering
- (●) b) Decision Tree ✓
- ( ) c) Principal Component Analysis
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Auto-graded

20. Which of the following is an example of unsupervised learning? *

- a) Logistic Regression
- b) K-Means clustering ✓
- c) Support Vector Machine
- d) Random Forest

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

21. What is a common challenge in supervised learning? *

- a) Labeling large datasets ✓
- b) Finding clusters
- c) Reducing dimensions
- d) Extracting features

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

22. What is the primary purpose of linear regression? *

- a) To classify data
- b) To cluster data
- c) To predict a continuous outcome ✓
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1 / 1 pt
Auto-graded

23. Which of the following represents the equation of a simple linear regression model? *

- a) y = mx + b ✓
- b) y = ax^2 + bx + c
- c) y = m(x)
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✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

24. Which method is commonly used to estimate the coefficients in linear regression? *

- a) Maximum Likelihood Estimation
- b) Gradient Descent
- c) Least Squares ✓
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1 / 1 pt
Auto-graded

25. Which of the following is a common application of linear regression? *

- a) Predicting customer churn
- b) Predicting house prices ✓
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- d) Grouping similar items

✓ **Correct** 1/1 Points

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Auto-graded

26. What is the primary purpose of logistic regression? *

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- b) Classification of data ✓
- c) Clustering data
- d) Dimensionality reduction

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

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- b) Email spam detection ✓
- c) Customer segmentation
- d) Image compression

✓ **Correct** 1/1 Points

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Auto-graded

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- a) Classification
- b) Clustering ✓
- c) Regression
- d) Data visualization

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

29. In K-Means, what does the "K" represent? *

- a) The number of clusters ✓
- b) The number of features
- c) The number of iterations
- d) The number of data points

✓ **Correct** 1/1 Points

1 / 1 pt
Auto-graded

30. What is the primary purpose of deep learning? *

- a) Data visualization
- b) Natural language processing
- c) Feature extraction and complex pattern recognition ✓
- d) Data clustering

PART-B (15* 2=30 MARKS)

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

31. Which type of neural network is commonly used for image classification tasks?

- a) Recurrent Neural Network (RNN)
- b) Convolutional Neural Network (CNN) ✓
- c) Generative Adversarial Network (GAN)
- d) Long Short-Term Memory (LSTM)

✕ **Incorrect** 0/2 Points

0 / 2 pts
Auto-graded

32. What does "backpropagation" refer to in the context of neural networks?

- (●) a) A method to initialize weights
- ( ) b) A technique for scaling data
- ( ) c) An algorithm for updating weights ✓
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✓ **Correct** 2/2 Points

2 / 2 pts
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✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

34. What is the role of the "loss function" in a neural network?

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- b) To measure the difference between predicted and actual values ✓
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- d) To normalize data

✗ **Incorrect** 0/2 Points

0 / 2 pts
Auto-graded

35. Which of the following is a commonly used activation function in deep learning?

- a) Softmax ✓
- b) Euclidean Distance
- c) Principal Component Analysis
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✕ **Incorrect** 0/2 Points

0 / 2 pts
Auto-graded

36. What does the activation function in a neural network do?

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✕ **Incorrect** 0/2 Points

0 / 2 pts
Auto-graded

37. Which algorithm is commonly used to optimize the weights in a neural network during training?

- ( ) a) K-Means
- ( ) b) Gradient Descent ✓
- ( ) c) Principal Component Analysis (PCA)
- (●) d) Apriori Algorithm

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

38. What is a common challenge when using the K-Means algorithm?

- (●) a) Determining the number of clusters (K) ✓
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- ( ) c) Overfitting the model
- ( ) d) Selecting features

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

39. What is the range of the output values in logistic regression?

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- ( ) b) -1 to 1
- ( ) c) 0 to 100
- ( ) d) Any real number

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2 / 2 pts
Auto-graded

40. Which of the following assumptions is NOT required for linear regression?

- a) Linearity
- b) Homoscedasticity
- c) Multicollinearity ✓
- d) Independence of errors

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

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- a) DataFrame ✓
- b) Matrix
- c) Series
- d) List

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

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- a) H
- b) e ✓
- c) l
- d) o

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

43. How do you start a comment in Python?

- a) //
- b) # ✓
- c) /*
- d) %

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

44. Which data type is used to store True or False values in Python?

- a) int
- b) str
- c) bool ✓
- d) float

✓ **Correct** 2/2 Points

2 / 2 pts
Auto-graded

45. Which of the following is a common evaluation metric for supervised learning?

- a) Accuracy ✓
- b) Cluster Purity
- c) Silhouette Score
- d) Sum of Squared Errors

VAC COORDINATOR
[G.NARAM GANESH]
AP-IT

HOD

152

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF INFORMATION TECHNOLOGY

VALUE ADDED COURSE

"Deep Learning using PYTHON"

05.08.2024 to 09.08.2024

PROJECT REPORT

Virat Kohli Century Analysis Project

Submitted By,

(22UIT050 – Jayashree T)

(22UIT057 – Sandhiya K)

(22UIT082 – Srideepalakshmi S)

PROJECT -RUBRICS				
Defining the Problem Statement and Objective (10 Marks)	Importing the Dataset and Libraries (10 Marks)	Data Exploration (10 Marks)	Performing Data Analysis (10 Marks)	Total Marks [40]
10	10	10	10	40

40/40

20.08.2024

Problem Statement:
What are the chances of India winning the match when Virat Kohli scores a century.

Introduction:

This analysis investigates the likelihood of India winning a cricket match when Virat Kohli scores a century. By examining a dataset of 71 centuries scored by Kohli, the study aims to determine how his big scores influence India's chances of winning. The dataset includes various details such as match format, opposition, venue type, and match results, allowing for a comprehensive analysis of Kohli's performance. This study explores the distribution of his scores, strike rates across different formats, and performance against various opponents, as well as historical trends. By analyzing these factors, the study provides insights into Kohli's crucial role in match outcomes and his impact on the Indian cricket team's success.

Code:

```
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
df=pd.read_csv("/content/drive/MyDrive/vac deep learning/71 Centuries of Virat Kohli.csv")
df.head()
```

Output:

	Score	Out/Not Out	Against	Batting Order	Inn.	Strike Rate	Venue	Column1	H/A	Date	Result	Format	Man of the Match	Captain	Unnamed: 14	Year
0	116	Out	Australia	6	2	NaN	Adelaide Oval	Adelaide	Away	2012-01-24	Lost	Test	No	No	NaN	2012
1	103	Out	New Zealand	5	2	NaN	M Chinnaswamy Stadium	Bangalore	Home	2012-08-31	Won	Test	Yes	No	NaN	2012
2	103	Out	England	5	2	NaN	Vidarbha Cricket Association Stadium	Nagpur	Home	2012-12-13	Drawn	Test	No	No	NaN	2012
3	107	Out	Australia	5	2	NaN	M A Chidambaram Stadium	Chennai	Home	2013-02-22	Won	Test	No	No	NaN	2013
4	119	Out	South Africa	4	1	NaN	Wanderers Stadium	Johannesburg	Away	2013-12-16	Drawn	Test	No	No	NaN	2013

```
df.describe()
```

Output:

	Score	Batting Order	Inn.	Strike Rate	Unnamed: 14
count	71.000000	71.000000	71.000000	44.000000	0.0
mean	132.140845	3.521127	1.732394	114.019545	NaN
std	35.911119	0.714326	0.675230	25.257567	NaN
min	100.000000	1.000000	1.000000	84.900000	NaN
25%	107.000000	3.000000	1.000000	96.632500	NaN
50%	119.000000	3.000000	2.000000	108.935000	NaN
75%	139.500000	4.000000	2.000000	120.787500	NaN
max	254.000000	6.000000	4.000000	200.000000	NaN

```
# Basic statistics
print(df['Score'].mean())
print(df['Strike Rate'].mean())
print(df['Format'].value_counts())
```

Output:

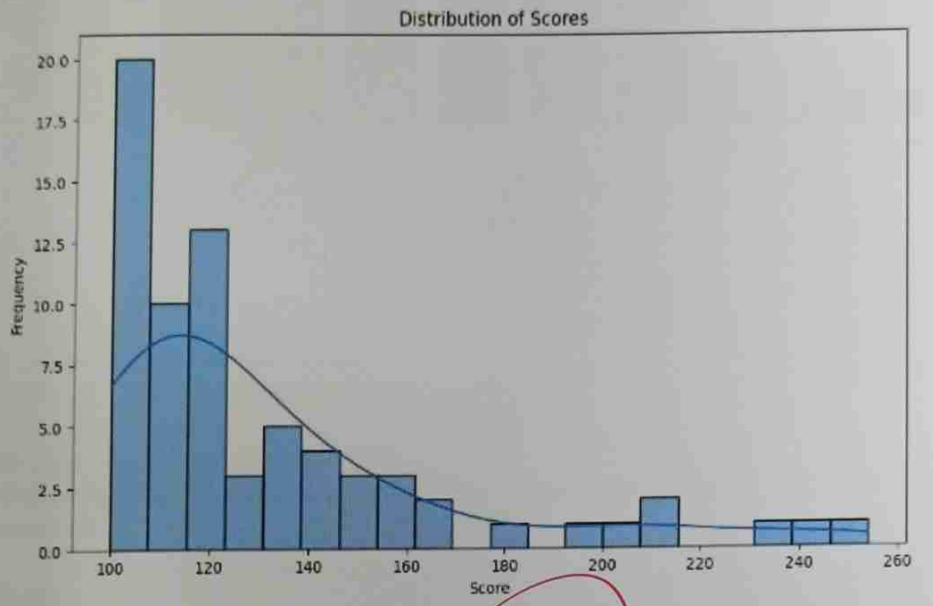
```
132.14084507042253
114.01954545454545
Format
ODI     43
Test    27
T20I     1
Name: count, dtype: int64
```

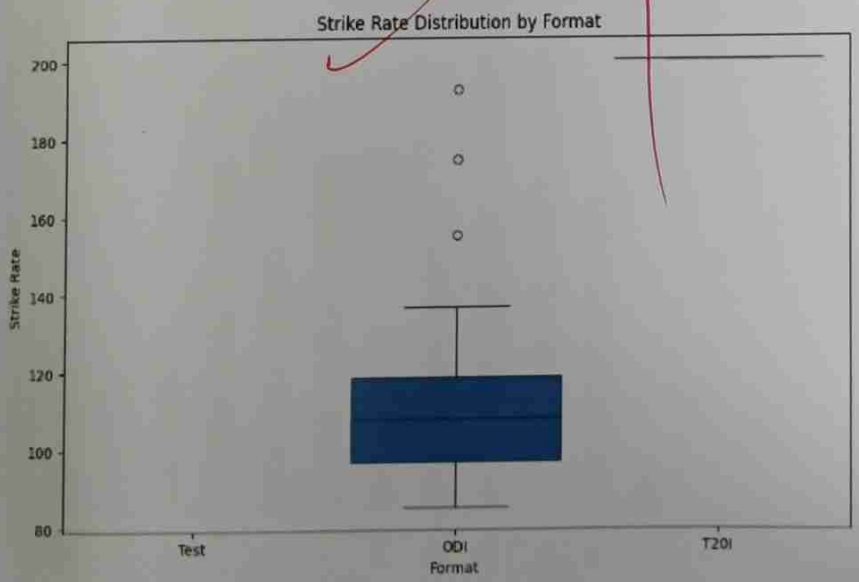
```
import matplotlib.pyplot as plt
# Histogram of Scores
plt.figure(figsize=(10, 6))# Basic statistics
print(df['Score'].mean())
print(df['Strike Rate'].mean())
print(df['Format'].value_counts())
sns.histplot(df['Score'], bins=20, kde=True)
plt.title('Distribution of Scores')
plt.xlabel('Score')
plt.ylabel('Frequency')
plt.show()

# Boxplot of Strike Rates by Format
plt.figure(figsize=(10, 6))
sns.boxplot(x='Format', y='Strike Rate', data=df)
plt.title('Strike Rate Distribution by Format')
plt.xlabel('Format')
plt.ylabel('Strike Rate')
plt.show()

# Countplot of Centuries by Opposition
plt.figure(figsize=(12, 6))
sns.countplot(x='Against', data=df, order=df['Against'].value_counts().index)
```

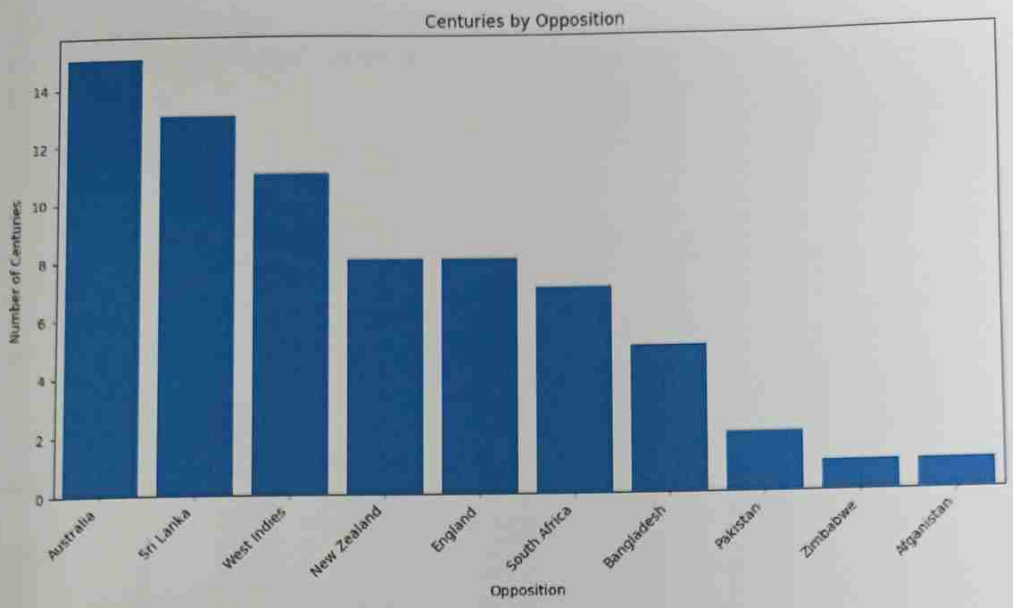
```
plt.title('Centuries by Opposition')
plt.xlabel('Opposition')
plt.ylabel('Number of Centuries')
plt.xticks(rotation=45, ha='right')
plt.show()
```

Output:

```
132.14084507042253
114.01954545454545
Format
ODI     43
Test    27
T20I     1
Name: count, dtype: int64
```

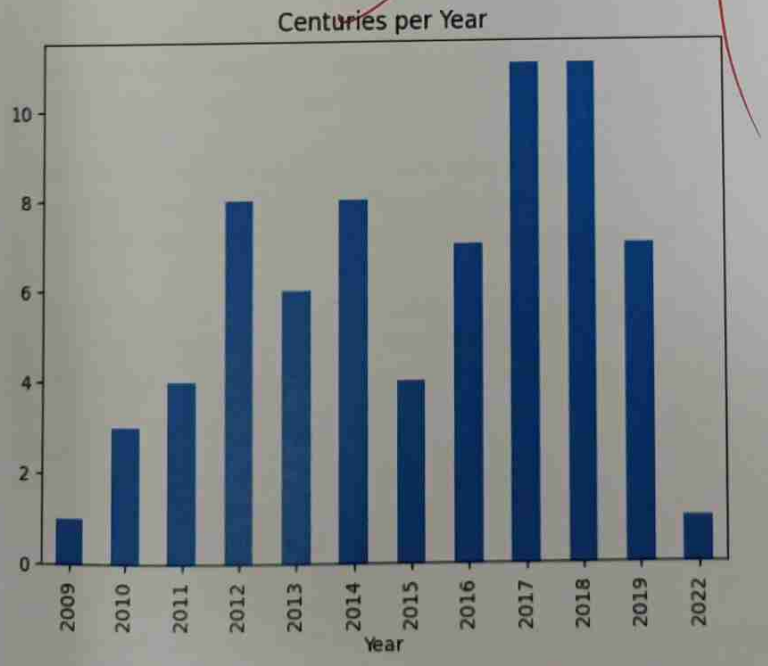






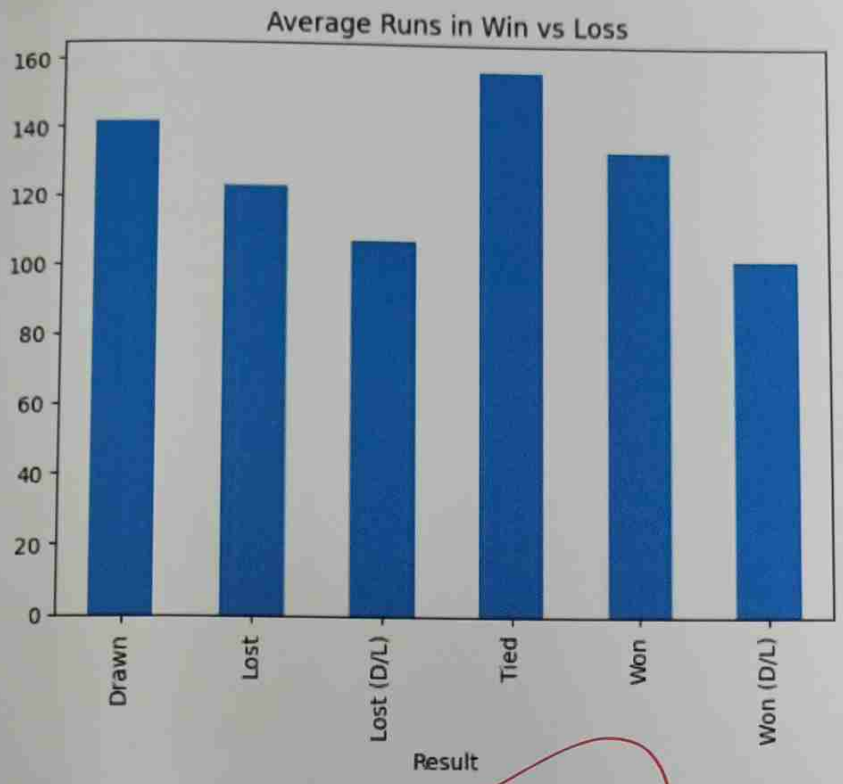

```
# Convert date to datetime format
df['Date'] = pd.to_datetime(df['Date'])
# Plot centuries per year
df['Year'] = df['Date'].dt.year
df.groupby('Year').size().plot(kind='bar', title='Centuries per Year')
plt.show()
```

Output:



```
# Win vs Loss Analysis
df.groupby('Result')['Score'].mean().plot(kind='bar', title='Average Runs in Win vs Loss')
plt.show()
```

Output:




```
# Average score when Kohli scores a century
average_score = century_matches['Score'].mean()
print(f"Average score when Virat Kohli scores a century: {average_score:.2f}")

# Minimum score when Kohli scores a century
min_score = century_matches['Score'].min()
print(f"Minimum score when Virat Kohli scores a century: {min_score}")

# Maximum score when Kohli scores a century
max_score = century_matches['Score'].max()
print(f"Maximum score when Virat Kohli scores a century: {max_score}")
```

Output:

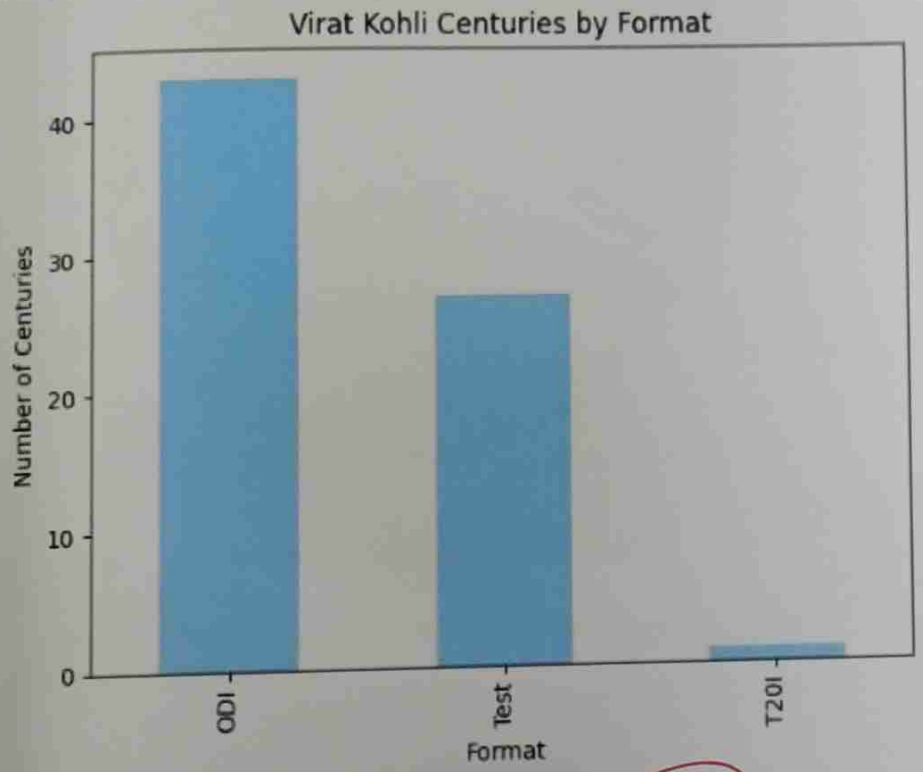
```
Average score when Virat Kohli scores a century: 132.14
Minimum score when Virat Kohli scores a century: 100
Maximum score when Virat Kohli scores a century: 254
```

```
# Count of centuries by format
centuries_by_format = century_matches['Format'].value_counts()
print("\nCenturies by Format:")
```

```
print(centuries_by_format)

# Plot centuries by format
centuries_by_format.plot(kind='bar', title='Virat Kohli Centuries by Format', color='skyblue')
plt.xlabel('Format')
plt.ylabel('Number of Centuries')
plt.show()
```

Output:

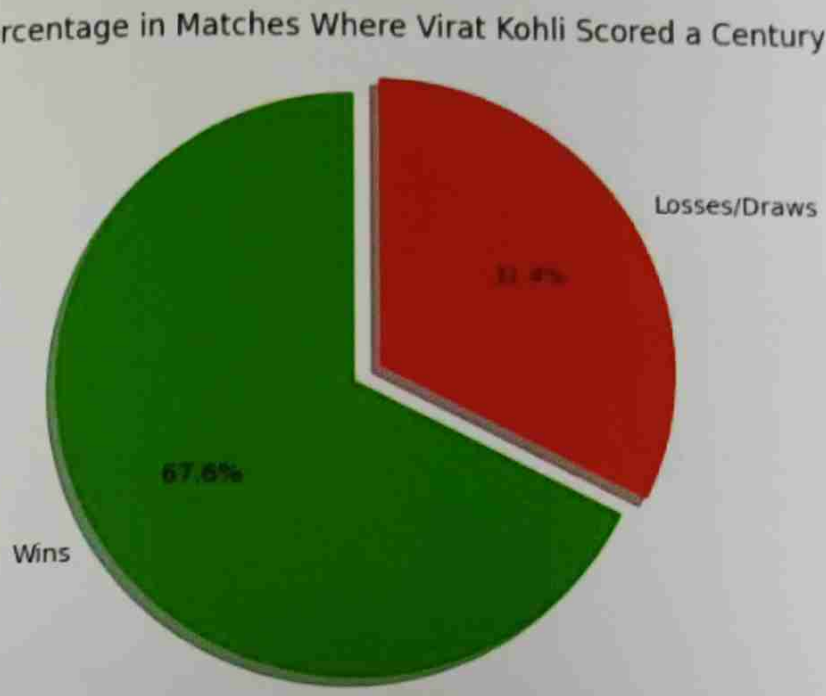
```
Centuries by Format:
Format
ODI     43
Test    27
T20I     1
Name: count, dtype: int64
```




```
# Filter the matches where Virat Kohli scored a century (Score >= 100)
century_matches = df[df['Score'] >= 100]
# Calculate the total number of matches where he scored a century
total_century_matches = len(century_matches)
wins = len(century_matches[century_matches['Result'] == 'Won'])
# Data for the pie chart
labels = ['Wins', 'Losses/Draws']
sizes = [win_percentage, 100 - win_percentage]
colors = ['green', 'red']
explode = (0.1, 0)  # explode the 1st slice (Wins)

# Plotting the pie chart
plt.pie(sizes, explode=explode, labels=labels, colors=colors, autopct='%1.1f%%',
shadow=True, startangle=90)
plt.axis('equal')  # Equal aspect ratio ensures that pie is drawn as a circle.
```

```
plt.title('Win Percentage in Matches Where Virat Kohli Scored a Century')
plt.show()
```

Output:




```
win_percentage = (wins / total_century_matches) * 100
#Print the win percentage
print(f"Chances of India winning when Virat Kohli scores a century:
{win_percentage:.2f}%")
```

Output:

Chances of India winning when Virat Kohli scores a century: 67.61%

Summary:

This project report analyzes the impact of Virat Kohli's centuries on India's cricket match outcomes using a dataset of 71 centuries. The study reveals that India has a 67.61% win probability when Kohli scores a century, highlighting his significant influence on match results. Kohli's scoring consistency is notable, with an average of 132.14 runs per century, and he has achieved this milestone most frequently in ODIs, with 43 centuries. Visualizations in the report illustrate the distribution of his scores, variations in strike rates by format, and his performance against different opponents. Overall, the report underscores Kohli's critical role in securing victories for India and demonstrates how his individual achievements contribute significantly to the team's success.

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DEPARTMENT OF INFORMATION TECHNOLOGY

VALUE ADDED COURSE

"Deep Learning using PYTHON"

31.07.2023 to 05.08.2023

PROJECT REPORT

Simple linear regression on sales dataset

Submitted By,

(22UIT006 – NAVEEN PRABHAKARAN G)

(22UIT007 – SAKESH R)

(22UIT014 – SATHEESH M)

170

PROJECT -RUBRICS				
Defining the Problem Statement and Objective (10 Marks)	Importing the Dataset and Libraries (10 Marks)	Data Exploration (10 Marks)	Performing Data Analysis (10 Marks)	Total Marks [40]
10	10	7	5	32

20.08.2024

1.import the libraries

```
import pandas as pd
import seaborn as sns
import numpy as np
import matplotlib.pyplot as plt
```

2.import the dataset

```
data = pd.read_csv('/content/drive/MyDrive/Classroom/csv/71 Centuries of Virat Kohli.csv')
```

data.head()

```
data.head()
```

	Score	Out/Not Out	Against	Batting Order	Inn.	Strike Rate	Venue	Column1	H/A	Date	Result	Format	Man of the Match	Captain	Unnamed: 14
0	116	Out	Australia	6	2	NaN	Adelaide Oval	Adelaide	Away	24-01-2012	Lost	Test	No	No	NaN
1	103	Out	New Zealand	5	2	NaN	M. Chinnaswamy Stadium	Bangalore	Home	31-08-2012	Won	Test	Yes	No	NaN
2	103	Out	England	5	2	NaN	Vidarbha Cricket Association Stadium	Nagpur	Home	13-12-2012	Drawn	Test	No	No	NaN
3	107	Out	Australia	5	2	NaN	M. A. Chidambaram Stadium	Chennai	Home	22-02-2013	Won	Test	No	No	NaN
4	119	Out	South Africa	4	1	NaN	Wanderers Stadium	Johannesburg	Away	18-12-2013	Drawn	Test	No	No	NaN

data.tail()

```
[9] data.tail()
```

	Score	Out/Not Out	Against	Batting Order	Inn.	Strike Rate	Venue	Column1	H/A	Date	Result	Format	Man of the Match	Captain	Unnamed 1
66	116	Out	Australia	3	1	96.67	Vidarbha Cricket Association Stadium	Nagpur	Home	05-03-2019	Won	ODI	Yes	Yes	Nal
67	123	Out	Australia	3	2	129.47	JSCA International Stadium	Ranchi	Home	08-03-2019	Lost	ODI	No	Yes	Nal
68	120	Out	West Indies	3	1	96.00	Queen's Park Oval	Port of Spain	Away	11-08-2019	Won	ODI	Yes	Yes	Nal
69	114	Not Out	West Indies	3	2	115.15	Queen's Park Oval	Port of Spain	Away	14-08-2019	Won	ODI	Yes	Yes	Nal
70	122	Not Out	Afganistan	1	1	200.00	Dubai International Cricket Stadium	Dubai	Away	08-09-2022	Won	T20I	Yes	No	Nal

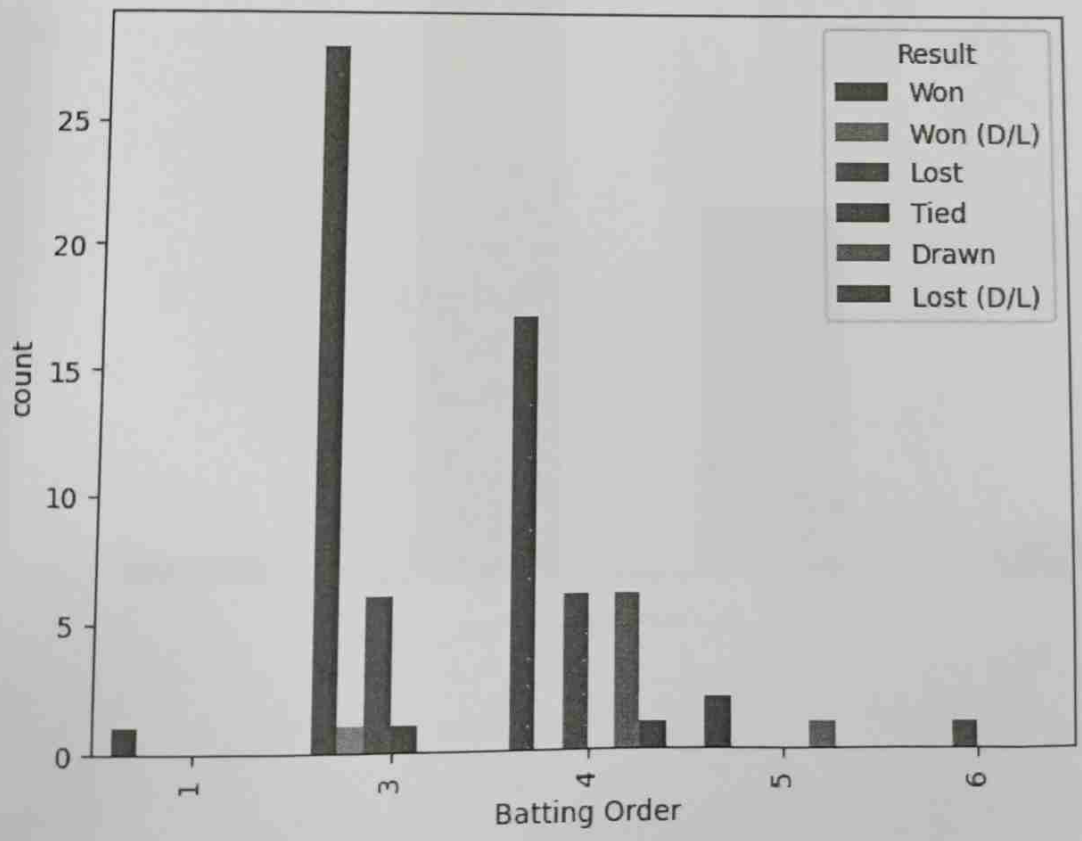
data.info()

```
data.info()
```

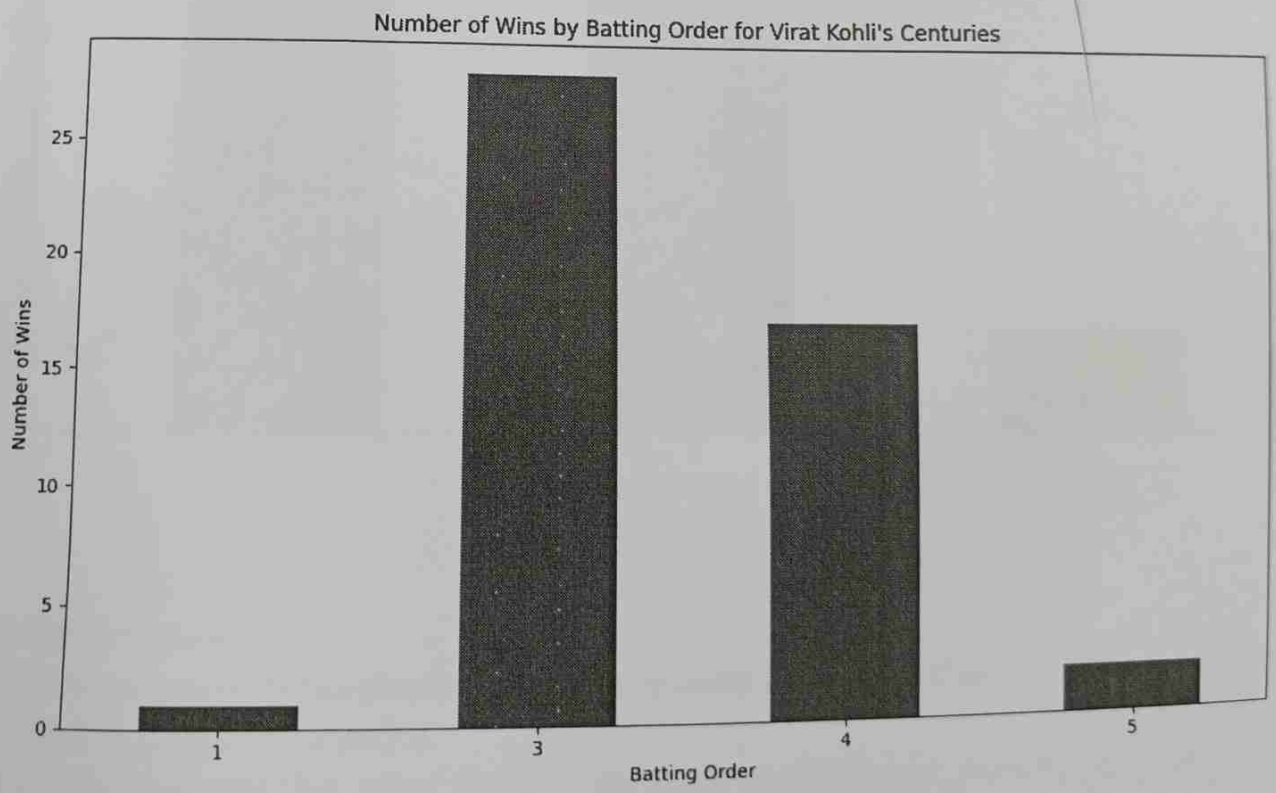
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 71 entries, 0 to 70
Data columns (total 15 columns):
 #   Column              Non-Null Count  Dtype
---  ------              --------------  -----
 0   Score               71 non-null     int64
 1   Out/Not Out         71 non-null     object
 2   Against             71 non-null     object
 3   Batting Order       71 non-null     int64
 4   Inn.                71 non-null     int64
 5   Strike Rate         44 non-null     float64
 6   Venue               71 non-null     object
 7   Column1             71 non-null     object
 8   H/A                 71 non-null     object
 9   Date                71 non-null     object
 10  Result              71 non-null     object
 11  Format              71 non-null     object
 12  Man of the Match    71 non-null     object
 13  Captain             71 non-null     object
 14  Unnamed: 14         0 non-null      float64
dtypes: float64(2), int64(3), object(10)
memory usage: 8.4+ KB
```

4.Plot

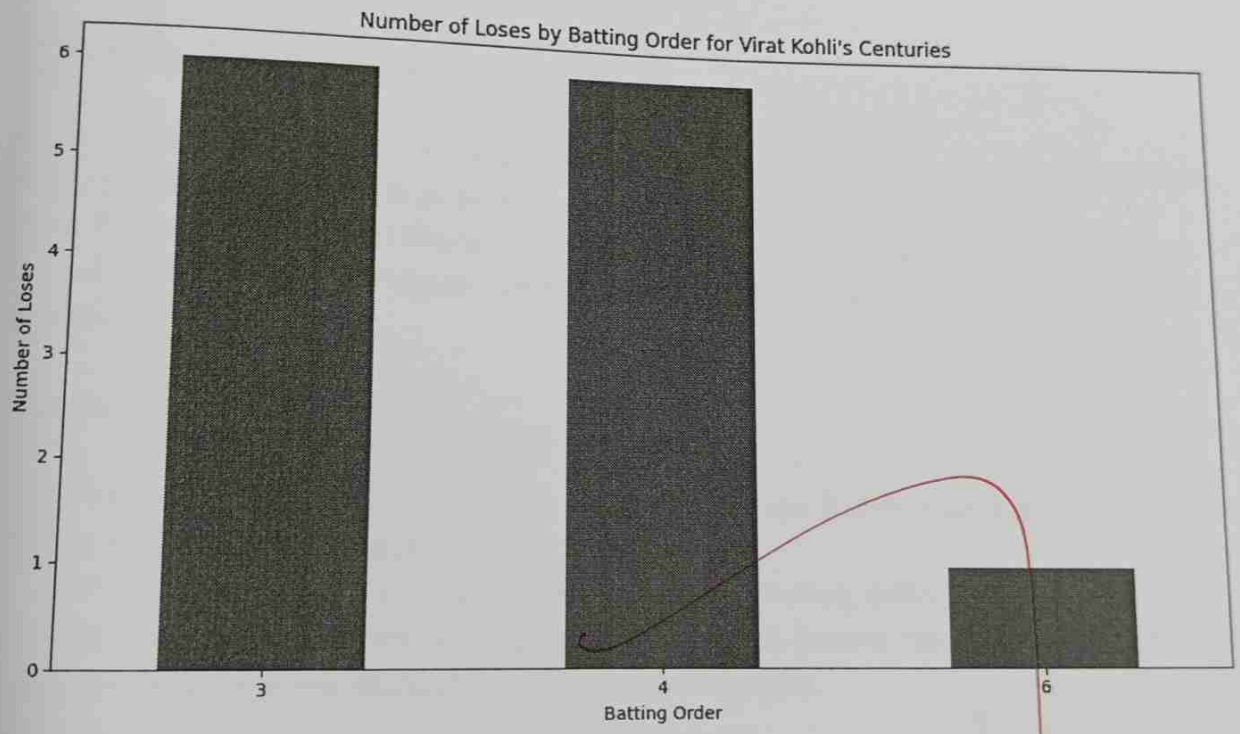
```
sns.countplot(x='Batting Order', hue='Result', data=data)
plt.xticks(rotation=90)
plt.show()
```



```
# Observations:
# - Most centuries have been scored when batting at number 3.
# - A significant number of centuries while batting at number 3 resulted in wins.
# - Number 4 position also shows a good number of centuries but with a less win ratio compared to number 3.
# - Centuries from other batting positions are relatively fewer.

wins_by_order = data[data['Result'] == 'Won'].groupby('Batting Order')['Result'].count()

# Plotting
plt.figure(figsize=(10, 6))
wins_by_order.plot(kind='bar')
plt.xlabel('Batting Order')
plt.ylabel('Number of Wins')
plt.title('Number of Wins by Batting Order for Virat Kohli\'s Centuries')
plt.xticks(rotation=0)
plt.tight_layout()
plt.show()
```



```
lose_by_order = data[data['Result'] == 'Lost'].groupby('Batting
Order')['Result'].count()

# Plotting
plt.figure(figsize=(10, 6))
lose_by_order.plot(kind='bar')
plt.xlabel('Batting Order')
plt.ylabel('Number of Loses')
plt.title('Number of Loses by Batting Order for Virat Kohli\'s Centuries')
plt.xticks(rotation=0)
plt.tight_layout()
plt.show()
```




```
# Observations:
# - Despite scoring centuries, there have been instances of losses when Kohli
batted at positions 3 and 4.
# - This suggests that other factors like team performance, bowling strength of
the opposition, etc., also play a crucial role in determining the match outcome.
# - The number of losses when scoring a century from other batting positions is
relatively less, likely due to fewer instances of scoring centuries from those
positions.
```

5.Summary

1.Data Loading and Initial Exploration:

- Loads a CSV file containing data on Kohli's centuries.
- Displays the first and last few rows of the dataset using head() and tail().
- Provides a summary of the dataset using info().

2. Century Distribution and Match Results:

- Creates a countplot to visualize the distribution of centuries across different batting positions and their corresponding match results (win, loss).
- Observes that most centuries were scored at number 3, with a high win ratio.

3. Wins by Batting Order:

- Groups the data by batting order and counts the number of wins associated with centuries from each position.
- Plots a bar chart to show the number of wins by batting order.
- Confirms that batting at number 3 leads to the most wins when Kohli scores a century.

4. Losses by Batting Order:

- Similarly, analyzes the number of losses when Kohli scores a century from different batting positions.
- Plots a bar chart to visualize the losses by batting order.
- Highlights that even when scoring a century, losses can occur, indicating the influence of other factors on the match outcome.

100

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DEPARTMENT OF INFORMATION TECHNOLOGY

VALUE ADDED COURSE

"Deep Learning using PYTHON"

05.08.2024 to 09.08.2024

PROJECT REPORT

71 centuries of Virat Kohli

PROJECT -RUBRICS				
Defining the Problem Statement and Objective (10 Marks)	Importing the Dataset and Libraries (10 Marks)	Data Exploration (10 Marks)	Performing Data Analysis (10 Marks)	Total Marks [40]
10	10	10	5	35

Submitted By,

(22UIT087 –G.Madhubhavani)

(22UIT055–V.Rohini)

(22UIT077 – T.Mangalya)

(22UIT041-D.Evangelin)

35/40

20.08.2024

```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import numpy as np

data=pd.read_csv("/content/71 Centuries of Virat Kohli.csv")

data.head()
```

OUTPUT:

	Score	Out/Not Out	Against	Batting Order	Inn.	Strike Rate	Venue	Column1	H/A	Date	Result	Format	Man of the Match	Captain	Unnamed: 14
0	116	Out	Australia	6	2	NaN	Adelaide Oval	Adelaide	Away	24-01-2012	Lost	Test	No	No	NaN
1	103	Out	New Zealand	5	2	NaN	M. Chinnaswamy Stadium	Bangalore	Home	31-08-2012	Won	Test	Yes	No	NaN
2	103	Out	England	5	2	NaN	Vidarbha Cricket Association Stadium	Nagpur	Home	13-12-2012	Drawn	Test	No	No	NaN
3	107	Out	Australia	5	2	NaN	M. A. Chidambaram Stadium	Chennai	Home	22-02-2013	Won	Test	No	No	NaN
4	119	Out	South Africa	4	1	NaN	Wanderers Stadium	Johannesburg	Away	18-12-2013	Drawn	Test	No	No	NaN

```
data.info()
```

OUTPUT:

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 71 entries, 0 to 70
Data columns (total 15 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
 0   Score           71 non-null     int64
 1   Out/Not Out     71 non-null     object
 2   Against         71 non-null     object
 3   Batting Order   71 non-null     int64
 4   Inn.            71 non-null     int64
 5   Strike Rate     44 non-null     float64
 6   Venue           71 non-null     object
 7   Column1         71 non-null     object
 8   H/A             71 non-null     object
 9   Date            71 non-null     object
 10  Result          71 non-null     object
 11  Format          71 non-null     object
 12  Man of the Match  71 non-null   object
 13  Captain         71 non-null     object
 14  Unnamed: 14     0 non-null      float64
```

```
dtypes: float64(2), int64(3), object(10)
memory usage: 8.4+ KB
data.shape
```

OUTPUT:

```
(71, 15)
```

1.

```
data['Out/Not Out'].value_counts()
```

OUTPUT:

```
count Out/Not Out
Out 51
Not Out 20
```

2.

```
out_count = data['Out/Not Out'].value_counts()['Out']
not_out_count = data['Out/Not Out'].value_counts()['Not Out']

ratio = out_count / not_out_count
print(out_count)
print(not_out_count)
print("Ratio of Out to Not Out:", ratio)
print("The higher is Out =",out_count)

if out_count > not_out_count:
  print("Virat Kohli gets out more often than he remains not out.")
elif not_out_count > out_count:
  print("Virat Kohli remains not out more often than he gets out.")
else:
  print("Virat Kohli gets out and remains not out an equal number of times.")
```

OUTPUT:

```
51
20
Ratio of Out to Not Out: 2.55
The higher is Out = 51
Virat Kohli gets out more often than he remains not out.
```

3.

```
# Group the data by 'Against' and calculate the total runs scored against each
team
runs_by_opponent = data.groupby('Against')['Score'].sum()

# Find the opponent with the highest total runs
highest_runs_opponent = runs_by_opponent.idxmax()
highest_runs = runs_by_opponent.max()

print(f"Virat Kohli has scored the highest runs ({highest_runs}) against
{highest_runs_opponent}.")
```

OUTPUT:

Virat Kohli has scored the highest runs (1817) against Australia.

4.

```
# Group the data by 'Ground' and calculate the total runs scored at each venue
runs_by_venue = data.groupby('Venue')['Score'].sum()

# Find the venue with the highest total runs
highest_runs_venue = runs_by_venue.idxmax()
highest_runs = runs_by_venue.max()

print(f"Virat Kohli has scored the highest runs ({highest_runs}) at
{highest_runs_venue}.")
```

OUTPUT:

Virat Kohli has scored the highest runs (583) at Adelaide Oval.

5.

```
# Group the data by 'Against' and calculate the total runs scored against each
team
runs_by_opponent = data.groupby('Against')['Score'].sum()

# Find the opponent with the lowest total runs
lowest_runs_opponent = runs_by_opponent.idxmin()
lowest_runs = runs_by_opponent.min()
```

```
print(f"Virat Kohli has scored the lowest runs ({lowest_runs}) against
{lowest_runs_opponent}.")
```

OUTPUT:

Virat Kohli has scored the lowest runs (115) against Zimbabwe.

6.

```
# Group the data by 'Ground' and calculate the total runs scored at each venue
runs_by_venue = data.groupby('Venue')['Score'].sum()

# Find the venue with the lowest total runs
lowest_runs_venue = runs_by_venue.idxmin()
lowest_runs = runs_by_venue.min()

print(f"Virat Kohli has scored the lowest runs ({lowest_runs}) at
{lowest_runs_venue}.")
```

OUTPUT:

Virat Kohli has scored the lowest runs (100) at Sawai Mansingh Stadium.

7.

```
# Group the data by 'Against' and calculate the total runs scored against each
team
runs_by_opponent = data.groupby('Against')['Score'].sum()

# Sort the results in descending order and select the top 5
top_5_opponents = runs_by_opponent.sort_values(ascending=False).head(5)

print("Top 5 opponents against whom Virat Kohli has scored the most runs:")
print(top_5_opponents)
```

OUTPUT:

```
Top 5 opponents against whom Virat Kohli has scored the most runs:
Against
Australia      1817
Sri Lanka      1728
West Indies    1434
England        1098
South Africa   1065
Name: Score, dtype: int64
```

8.

```
# Group the data by 'Ground' and calculate the total runs scored at each venue
runs_by_venue = data.groupby('Venue')['Score'].sum()

# Sort the results in descending order and select the top 5
top_5_venues = runs_by_venue.sort_values(ascending=False).head(5)

print("Top 5 venues where Virat Kohli has scored the most runs:")
print(top_5_venues)
```

OUTPUT:

```
Top 5 venues where Virat Kohli has scored the most runs:
Venue
Adelaide Oval                          583
Sher-e-Bangla Cricket Stadium          493
Maharashtra Cricket Association Stadium  483
Vidarbha Cricket Association Stadium   432
R. Premadasa Stadium                   369
Name: Score, dtype: int64
```

9.

```
# Group the data by 'Home/Away' and calculate the total runs scored in each
category
runs_by_home_away = data.groupby('H/A')['Score'].sum()

# Find the category with the highest total runs
highest_runs_category = runs_by_home_away.idxmax()
highest_runs = runs_by_home_away.max()

print(f"Virat Kohli has scored the highest runs ({highest_runs}) in
{highest_runs_category} matches.")
```

OUTPUT:

```
Virat Kohli has scored the highest runs (4832) in Away matches.
```

10.

```
# Group the data by 'Batting Order' and calculate the total runs scored in each
position
```

```
runs_by_batting_order = data.groupby('Batting Order')['Score'].sum()

# Find the batting order with the highest total runs
highest_runs_batting_order = runs_by_batting_order.idxmax()
highest_runs = runs_by_batting_order.max()

print(f"Virat Kohli has scored the highest runs ({highest_runs}) batting at
position {highest_runs_batting_order}.")
```

OUTPUT:

Virat Kohli has scored the highest runs (4451) batting at position 4.

11.

```
# Group the data by 'Innings' and calculate the total runs scored in each innings
runs_by_innings = data.groupby('Inn.')['Score'].sum()

# Find the innings with the highest total runs
highest_runs_innings = runs_by_innings.idxmax()
highest_runs = runs_by_innings.max()

print(f"Virat Kohli has scored the highest runs ({highest_runs}) in the
{highest_runs_innings} innings.")
```

OUTPUT:

Virat Kohli has scored the highest runs (5132) in the 2 innings.

12.

```
# Group the data by 'Batting Order' and 'Out/Not Out' and count the occurrences
out_not_out_by_order = data.groupby(['Batting Order', 'Out/Not
Out'])['Score'].count().unstack(fill_value=0)

# Find the batting order with the highest 'Out' count
highest_out_order = out_not_out_by_order['Out'].idxmax()
highest_out_count = out_not_out_by_order['Out'].max()

# Find the batting order with the highest 'Not Out' count
highest_not_out_order = out_not_out_by_order['Not Out'].idxmax()
highest_not_out_count = out_not_out_by_order['Not Out'].max()

print(f"Batting order with highest 'Out' count: {highest_out_order}
({highest_out_count})")
```

```
print(f"Batting order with highest 'Not Out' count: {highest_not_out_order}
({highest_not_out_count})")
```

OUTPUT:

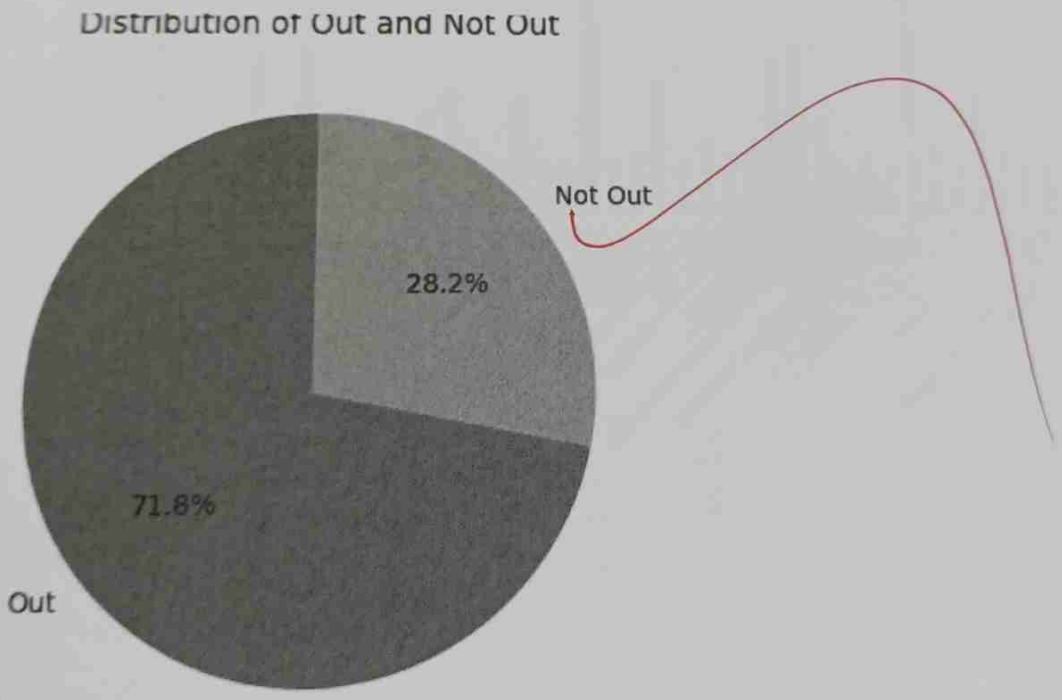
```
Batting order with highest 'Out' count: 3 (25)
Batting order with highest 'Not Out' count: 3 (11)
```

13.

```
# Count the occurrences of 'Out' and 'Not Out'
out_not_out_counts = data['Out/Not Out'].value_counts()

plt.pie(out_not_out_counts, labels=out_not_out_counts.index,
autopct='%1.1f%%', startangle=90)
plt.title('Distribution of Out and Not Out')
plt.show()
```

OUTPUT:



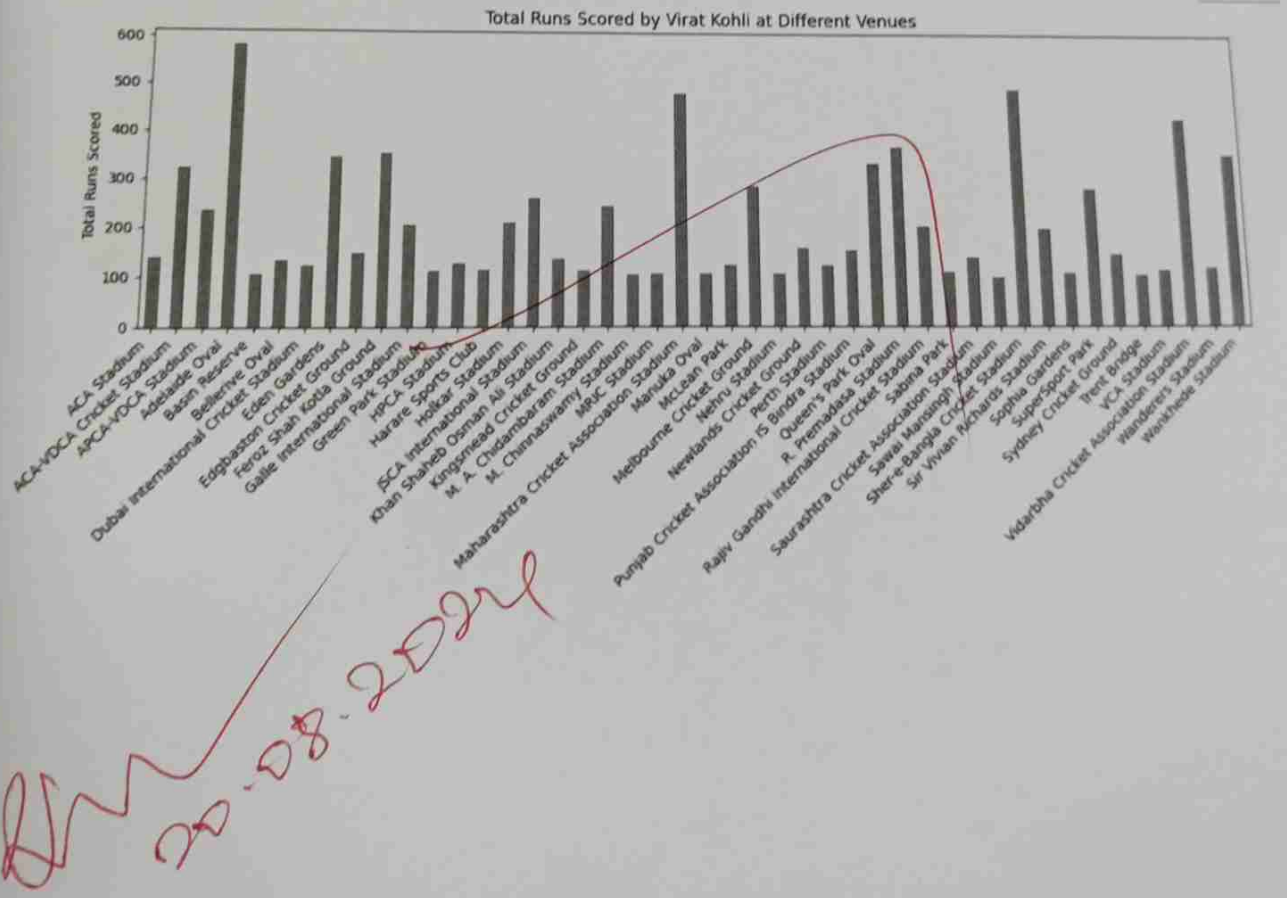
He has been out in many matches.

14.

```
# Group the data by 'Venue' and calculate the total runs scored at each venue
runs_by_venue = data.groupby('Venue')['Score'].sum()

# Create a bar chart
plt.figure(figsize=(12, 6))  # Adjust figure size as needed
runs_by_venue.plot(kind='bar')
plt.xlabel('Venue')
plt.ylabel('Total Runs Scored')
plt.title('Total Runs Scored by Virat Kohli at Different Venues')
plt.xticks(rotation=45, ha='right')  # Rotate x-axis labels for readability
plt.tight_layout()  # Adjust layout to prevent labels from overlapping
plt.show()
```

OUTPUT:



20-08-2024

Day 1 Feedback - Value Added Course on “Deep Learning using Python” (05.08.2024)

39 Responses 00:39 Average time to complete Active Status

1. The objective of the day 1 value added course was met.

Strongly Agree	15
Agree	19
Neutral	5
Disagree	0
Strongly disagree	0

2. The program sequence was well planned.

Strongly Agree	13
Agree	20
Neutral	5
Disagree	0
Strongly disagree	1

3. The lectures were clear and easy to understand.

Strongly Agree	13
Agree	21
Neutral	5
Disagree	0
Strongly disagree	0

4. The instructors encouraged the interaction.

Strongly Agree	12
Agree	23
Neutral	4
Disagree	0
Strongly disagree	0

5. The information presented in this VAC was highly beneficial.

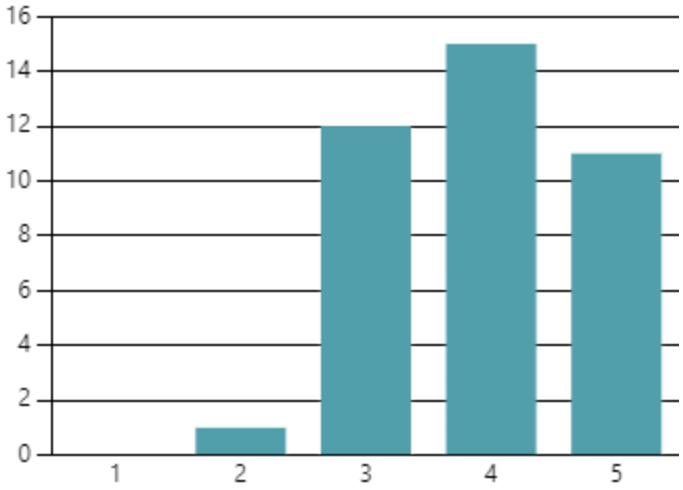
Strongly Agree	13
Agree	23
Neutral	3
Disagree	0
Strongly disagree	0

6. Well organized VAC course.

Strongly Agree	13
Agree	19
Neutral	7
Disagree	0
Strongly disagree	0

7. Overall Rating

3.92
Average Rating



8. Any comments?

36
Responses

Latest Responses

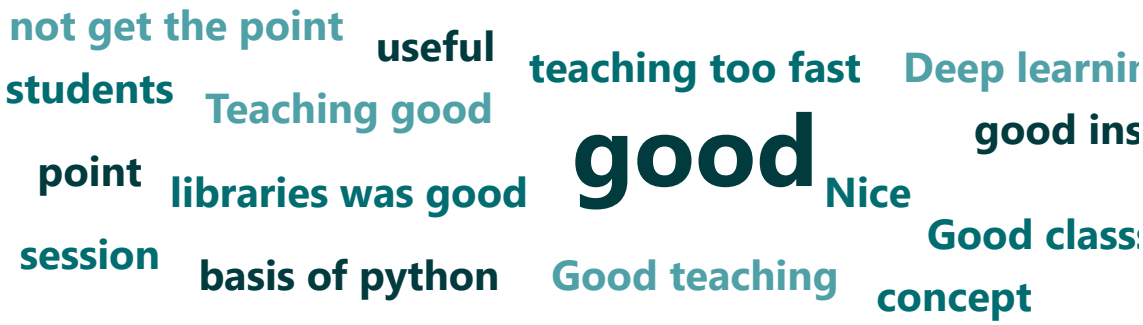
"*Good teaching*"

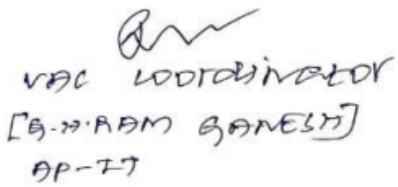
"*super*"

"*nil*"

Update

19 respondents (**49**%) answered **good** for this question.





Day 2 Feedback - Value Added Course on “Deep Learning using Python” (06.08.2024)

39 Responses 00:40 Average time to complete Active Status

1. The objective of the day 1 value added course was met.

Strongly Agree	13
Agree	16
Neutral	10
Disagree	0
Strongly disagree	0

2. The program sequence was well planned.

Strongly Agree	10
Agree	20
Neutral	9
Disagree	0
Strongly disagree	0

3. The lectures were clear and easy to understand.

Strongly Agree	9
Agree	19
Neutral	11
Disagree	0
Strongly disagree	0

4. The instructors encouraged the interaction.

Strongly Agree	12
Agree	15
Neutral	12
Disagree	0
Strongly disagree	0

5. The information presented in this VAC was highly beneficial.

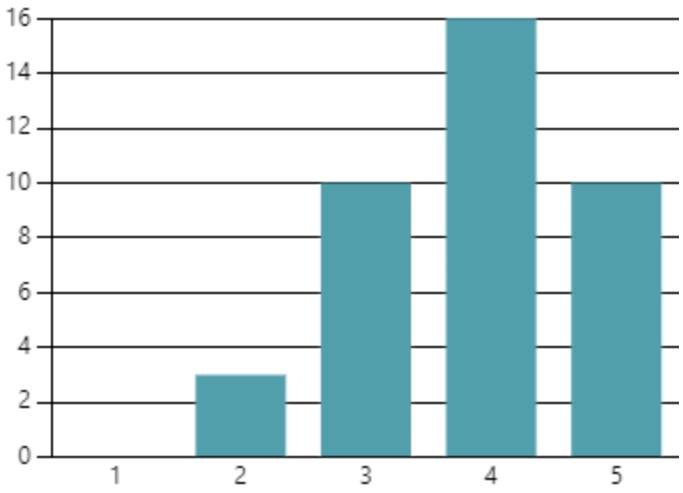
Strongly Agree	10
Agree	18
Neutral	11
Disagree	0
Strongly disagree	0

6. Well organized VAC course.

Strongly Agree	9
Agree	20
Neutral	9
Disagree	1
Strongly disagree	0

7. Overall Rating

3.85
Average Rating



8. Any comments?

36
Responses

Latest Responses

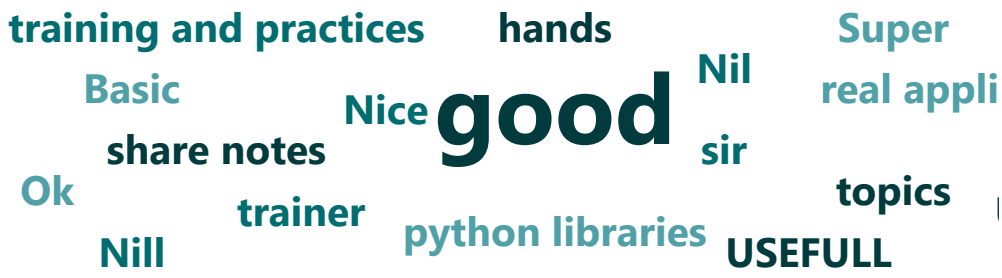
"*Good understanding the topics*"

"*It was good*"

"*Nill*"

Update

20 respondents (**51**%) answered **good** for this question.



VAC COORDINATOR
[S.NIRAM GANESH]
AP-IT

HOD

Day 3 Feedback - Value Added Course on “Deep Learning using Python” (07.08.2024)

38 Responses 00:29 Average time to complete Active Status

1. The objective of the day 1 value added course was met.

Strongly Agree	13
Agree	15
Neutral	10
Disagree	0
Strongly disagree	0

2. The program sequence was well planned.

Strongly Agree	10
Agree	20
Neutral	8
Disagree	0
Strongly disagree	0

3. The lectures were clear and easy to understand.

Strongly Agree	11
Agree	20
Neutral	7
Disagree	0
Strongly disagree	0

4. The instructors encouraged the interaction.

Strongly Agree	9
Agree	21
Neutral	8
Disagree	0
Strongly disagree	0

5. The information presented in this VAC was highly beneficial.

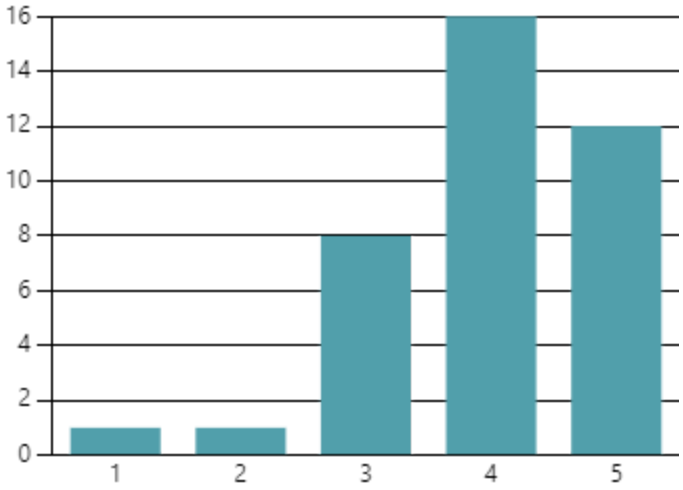
Strongly Agree	11
Agree	19
Neutral	8
Disagree	0
Strongly disagree	0

6. Well organized VAC course.

Strongly Agree	9
Agree	20
Neutral	9
Disagree	0
Strongly disagree	0

7. Overall Rating

3.97
Average Rating



8. Any comments?

34
Responses

Latest Responses

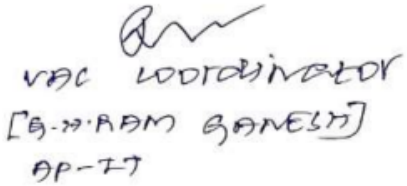
"*Good*"

"*Understood*"

" "

Update

17 respondents (**46**%) answered **Good** for this question.



Day 4 Feedback - Value Added Course on “Deep Learning using Python” (08.08.2024)

39 Responses 00:20 Average time to complete Active Status

1. The objective of the day 1 value added course was met.

Strongly Agree	12
Agree	22
Neutral	5
Disagree	0
Strongly disagree	0

2. The program sequence was well planned.

Strongly Agree	12
Agree	23
Neutral	4
Disagree	0
Strongly disagree	0

3. The lectures were clear and easy to understand.

Strongly Agree	14
Agree	19
Neutral	6
Disagree	0
Strongly disagree	0

4. The instructors encouraged the interaction.

Strongly Agree	13
Agree	21
Neutral	5
Disagree	0
Strongly disagree	0

5. The information presented in this VAC was highly beneficial.

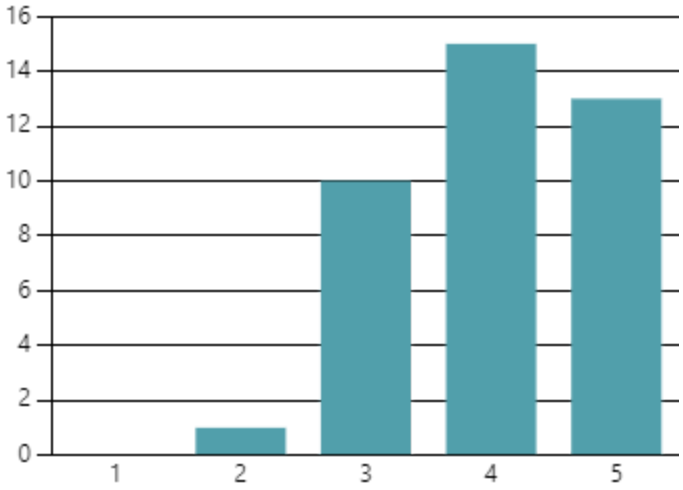
Strongly Agree	9
Agree	24
Neutral	6
Disagree	0
Strongly disagree	0

6. Well organized VAC course.

Strongly Agree	11
Agree	23
Neutral	5
Disagree	0
Strongly disagree	0

7. Overall Rating

4.03
Average Rating



8. Any comments?

35
Responses

Latest Responses

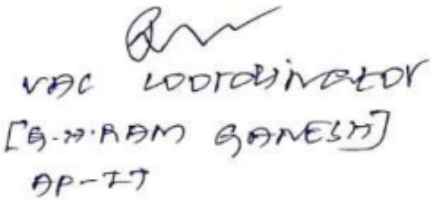
"*Nope*"

"*Good*"

"*Its good*"

Update

21 respondents (**54**%) answered **Good** for this question.



Day 5 Feedback - Value Added Course on “Deep Learning using Python” (09.08.2024)

38 Responses 00:20 Average time to complete Active Status

1. The objective of the day 1 value added course was met.

Strongly Agree	13
Agree	20
Neutral	5
Disagree	0
Strongly disagree	0

2. The program sequence was well planned.

Strongly Agree	12
Agree	23
Neutral	3
Disagree	0
Strongly disagree	0

3. The lectures were clear and easy to understand.

Strongly Agree	12
Agree	23
Neutral	3
Disagree	0
Strongly disagree	0

4. The instructors encouraged the interaction.

Strongly Agree	13
Agree	21
Neutral	4
Disagree	0
Strongly disagree	0

5. The information presented in this VAC was highly beneficial.

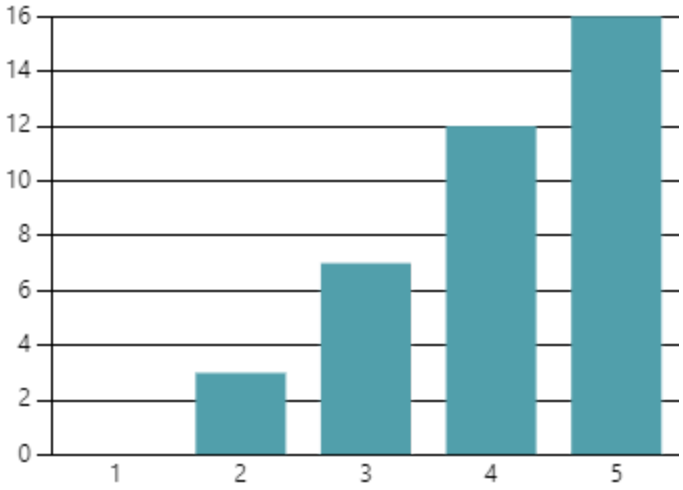
Strongly Agree	12
Agree	22
Neutral	4
Disagree	0
Strongly disagree	0

6. Well organized VAC course.

Strongly Agree	13
Agree	21
Neutral	4
Disagree	0
Strongly disagree	0

7. Overall Rating

4.08
Average Rating



8. Any comments?

34
Responses

Latest Responses

"I can understand "

"Good"

"Nice"

Update

19 respondents (**51**%) answered **Good** for this question.

VAC COORDINATOR
[S.M.RAM GANESH]
AP-IT

HOD

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF INFORMATION TECHNOLOGY

Value Added Course on "Deep Learning using Python"
(05.08.2024 to 09.08.2024)

Department : Information Technology **Regulation : R 2021**

Year : III-IT A & B **Semester : V**

Programme Summary Report

Day 1: 05/08/2024- Forenoon Session:

Software Installation and Interface Introduction

Software Introductions:

- Installed and explored Jupyter Notebook and Google Colab.
- Provided an overview of their interfaces and functionalities.

Concepts Covered:

- **Introduction to Python**:
  - Discussion on basic elements of Python, including variables, data types, keywords, and operators.
- **Understanding Data Structures**:
  - Differentiated between arrays vs. lists, integers vs. floats, and tuples vs. lists.
- **Data Conversion**:
  - Importance and techniques for data conversion.
- **Math Library**:
  - Used predefined mathematical functions from the math library.
- **String Handling**:
  - Worked with strings and their functions; discussed the usage of comments.
- **Conditional Statements**:
  - Practical implementation of conditional statements.

Day 1: 05/08/2024- Afternoon Session:

- **Looping Statements**:
  - Introduction to loops and their application.
- **List and Tuple Methods**:
  - Explored methods related to lists and tuples.
- **Set Properties**:
  - Discussed ordered vs. unordered nature of sets.

- **Dictionaries**:
    - Detailed examination of dictionary data structures.

Activities:

- A team quiz on the concepts discussed during the day.

Day 2: 06/08/2024 - Forenoon Session:

Introduction to NumPy and Pandas

Concepts Covered:

1. **Introduction to NumPy and pandas**:
    - Provided an overview and discussed the basic concepts.
2. **Data Access and Retrieval**:
    - Accessing data from Series by position.
3. **Series Concepts**:
    - Understanding axes, empty series, and the head and tail methods.
4. **Creating DataFrames**:
    - Methods for creating DataFrames using lists and dictionaries.
5. **DataFrame Operations**:
    - Selection, addition, and deletion of columns and rows.
6. **Basic DataFrame Functionality**:
    - Operations like transpose and axes manipulation.
7. **DataFrame Functions**:
    - Utilized functions such as shape, size, sum, and others.
8. **Importing Datasets**:
    - Learning how to import datasets.
9. **NumPy Arrays Concepts**:
    - Key operations like shape, reshape, size, and arange.
10. **NumPy Array Manipulations**:
    - Functions such as append, insert, ravel, flatten, and transpose.
11. **Stacking Arrays**:
    - Horizontal and vertical stacking using hstack and vstack.

Day 2: 06/08/2024 - Afternoon Session:

- **Matplotlib and Seaborn Libraries**:
    - Introduction to data visualization libraries.
- **Univariate and Bivariate Concepts**:
    - Differentiated and discussed these concepts.
- **Outlier Identification**:
    - Used box plots to identify outliers with real-time examples.

- **Chart Types**:
    - Discussed various charts like bar, line, scatter, box, histogram, and violin.

Activities:

- Puzzles and methods to solve them were discussed.
- A team quiz on the concepts discussed during the day.

Day 3: 07/08/2024-Forenoon Session

Introduction to AI

Concepts Covered:

1. **Introduction to AI**:
    - Overview of AI, common myths, and the differences between machine learning and deep learning techniques.
2. **AI Structure and Categories**:
    - Types of learning (supervised, unsupervised, semi-supervised, reinforcement).
3. **AI Market and Applications**:
    - Discussed real-life applications and market overview.
4. **Embedded AI Technologies**:
    - Discussed the matrix of embedded AI technologies.
5. **Linear Regression**:
    - Explored linear regression techniques.
6. **Unsupervised Learning**:
    - Clustering Algorithm – K-means clustering.

Day 3: 07/08/2024-Afternoon Session

- **Car Price Prediction**:
    - Analyzed and predicted car prices.
- **Boston Housing Prediction**:
    - Studied and predicted Boston housing prices.
- **Logistic Regression**:
    - Explored logistic regression techniques.
- **IBM HR Attrition Analysis**:
    - Conducted analysis on employee attrition using IBM HR data.

Activities:

- A team quiz on the concepts discussed during the day.

Day 4: 08/08/2024-Forenoon Session

Neural Networks

Concepts Covered:

1. **Neural Networks**:
    - Explored mathematical equations, neuron problems, and the need for an activation layer.
2. **Neuron Problems**:
    - Applications of deep learning, neuron structure, and user entity and behavior analytics.
3. **Cost Functions**:
    - Different types of cost functions, loss, or error functions, and methods to minimize them.
4. **Optimization**:
    - Techniques for optimizing bias and updating weights.

Day 4: 08/08/2024-Afternoon Session

- **Impact of Learning Rate**:
    - Discussed effects of different learning rates on model training.
- **Challenges in Training Perception**:
    - Explored difficulties in training perception networks.
- **Perception Network**:
    - Multi-level perception networks using multiple neurons.
- **Introduction to Deep Neural Networks**:
    - Overview of deep neural networks.

Activities:

- A team quiz on the concepts discussed during the day.
- Discussion on IBM HR Attrition problems.

Day 5: 09/08/2024-Forenoon session:

Backpropagation and Momentum

Concepts Covered:

1. **Backpropagation for Training Multi-Layer Perception**:
    - Discussed error as an explicit function of the weights and the chain rule for calculating gradients.
2. **Momentum**:
    - Understanding momentum and its impact on training.

Day 5: 09/08/2024-Afternoon session:

- **Popular Datasets**:
  - Explored datasets like Fashion MNIST and Customer churn modeling.
- **Review**:
  - Reviewed all concepts learned in previous sessions.
- **VAC Project**:
  - Split team members and assigned datasets for the VAC project, applying all discussed concepts.

Activities:

- A team quiz on the concepts discussed during the day.
- A presentation on De-aging technology was given by a student.

This summary captures the essence of the course, reflecting on the detailed exploration of Python, data structures, AI, machine learning, and neural networks. Each day built on the previous, with interactive sessions, quizzes, and real-world applications to solidify the understanding of complex concepts.


GPS Map Camera
Madurai,TN,India
Kalligudi, Madurai, 625701, TN, India
Lat 9.673367, Long 77.964447
08/05/2024 02:14 PM GMT+05:30
Note : Captured by GPS Map Camera


GPS Map Camera
Madurai,TN,India
Kalligudi, Madurai, 625701, TN, India
Lat 9.672166, Long 77.964617
08/08/2024 09:30 AM GMT+05:30
Note : Captured by GPS Map Camera

VAC COORDINATOR
[S.N.RAM GANESH]
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HOD