



(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 Computer Science and Engineering

Value Added Course on "Mastering the Art of Coding – Java Programming"

(12.02.2024 – 17.02.2024)

Trainer's Name : M.Musharaf, Backend Developer,Amphisoft Technologies,Coimbatore
A.Alisa Petrecia.Technical Specialist,Amphisoft Technologies,Coimbatore

Course Objectives:

- To learn the concepts of classes and objects
- To learn the basic of inheritance and interfaces in Java
- To Develop simple Java programs using string and class
- To Construct a simple generic function in Java

UNIT 1 OVERVIEW OF JAVA AND ITS FEATURES: 9

Introduction to Java: Basic Features of - Data Types - Variables and Constants - Expressions and Operators - Type Casting - Conditional Statements - Looping Constructs - Input and Output Statements - Arrays in Java - Functions in Java - String Basics and Operations - Wrapper Classes - Concept of Boxing and Unboxing

UNIT 2 OBJECT-ORIENTED PROGRAMMING IN JAVA: 9

Classes and Objects in Java - Data Encapsulation and Static Keyword: Constructors - Static and Final Keywords - Inheritance and its Code Implementation – Polymorphism - Abstract Class and its Implementation in Java

UNIT 3 JAVA STANDARD LIBRARIES: COLLECTIONS 9

Introduction to Generics and Collections API - Importance and Need of Collections - Various Collection Classes and Hierarchy - API Methods in Collection Classes - Comparator and Comparable Interfaces

UNIT4 JAVA STANDARD LIBRARIES: GENERICS 9

Understanding Generics in Java - Generics and its Role in Collection Classes - Exploring Generic Types - Wildcards in Generics - Use cases and Benefits of Generics - Limitations and Best Practices

UNIT 5 EXCEPTION HANDLING: 9

What is an Exception –Types of Exceptions - Class Hierarchy of Exceptions and Errors - Hands-on Practice: Common Exception Handling Techniques.

Course Outcome:

- Develop object oriented programs using Java Inheritance, Interface and Abstract class
- Build simple Java applications using generic class
- Build simple Java applications using collections

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VAC Incharges
MS.P. Pradeepa,
M.S. B. Muthukrishna Vinayagam
M.S. M. Rajalakshmi

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VAC coordinator
Dr. G. Nirmala

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HOD/CSE
Dr. A. Neerajshi



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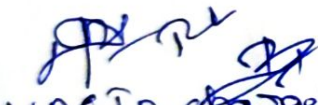
- To learn the concepts of classes and objects
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- To Develop simple Java programs using string and class
- To Construct a simple generic function in Java


S.NO	Date/Day	COURSE CONTENT	
		FN(9.10AM to 12.50 PM)	AN(1.30 PM to 4.00 PM)
1	12.02.2024 Monday	Introduction to Java: Basic Feature of - Data Types - Variables and Constants - Expressions and Operators - Type Casting - Conditional Statements	Input and Output Statements - Arrays in Java - Functions in Java - String Basics and Operations - Wrapper Classes – Concept of Boxing and Unboxing
2	13.02.2024 Tuesday	Classes and Objects in Java – Data Encapsulation and Static Keyword: Constructors - Static and Final Keywords	Inheritance and its Code Implementation – Polymorphism – Abstract Class and its Implementation in Java
3	14.02.2024 Wednesday	Introduction to Generics and Collections API - Importance and Need of Collections - Various Collection Classes and Hierarchy	API Methods in Collection Classes – Comparator and Comparable Interfaces
4	15.02.2024	Understanding Generics in Java - Generics and its Role in Collection	Exploring Generic Types -Wildcards in Generics -


	Thursday	Classes -	
5	16.02.2024 Saturday	Use cases and Benefits of Generics - Limitations and Best Practices	What is an Exception –Types of Exceptions - Class Hierarchy of Exceptions and Errors
6	17.02.2024	Hands-on Practice: Common Exception Handling Techniques	Practical Assessment and Verification

Course Outcome:

- Develop object oriented programs using Java Inheritance, Interface and Abstract class
- Build simple Java applications using generic class
- Build simple Java applications using collections


 VAC In-charge
 MS.D. Pradheba
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