



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Value Added Course on "Angular JS - Fullstack"

31.07.2023 to 05.08.2023

Full Stack On Angular JavaScript

42 HOURS

Objectives

- To understand the basic theory underlying Angular Javascript Fullstack.
- To formulate Angular javascript problems corresponding to different applications
- To make use of Angular Javascript with MEAN Stack consists of Mongo db, Express and Node Js so on...
- To acquire knowledge about the utilization of Angular javascript, Visual Studio Code and node js in real time.
- To acquire knowledge about the utilization of Scripting languages, Framework and node js techniques in real time.
- To be able to apply Angular Js to solve problems of moderate complexity.

UNIT 1: INTRODUCTION TO HTML, CSS, JAVASCRIPT (7)

HTML Basics-Elements- Attributes-Styles- Forms- Form Elements-Input Element Types-Input Attributes- File Paths- Script tag-HTML &XHTML- CSS Introduction- Syntax- Selectors- Styling- Pseudo class-Pseudo Elements- CSS Tables-CSS Box Models- CSS Opacity- CSS Navigation Bar-Dropdowns- JavaScript Statements- Keywords-Functions-JavaScript Programs- Operators-Functions- Function Parameters- Function Return Types- Data Types- Primitive Types

UNIT 2: INTRODUCTION TO Angular JS (7)

Introduction to Angular JS: What is Angular JS?- Why Angular JS?- Why MVC matters-MVC-The Angular JS way-Features of Angular JS ,Model-View-Controller- My First Angular JS app-Angular Expressions- All about Angular Expressions- How to use expressions- Angular vs JavaScript-Directives-Introduction to Directives- Directive Lifecycle-Binding controls to data-Matching directives-Using Angular JS built-in directives- Creating a custom directive

UNIT 3: ANGULAR JS MODULES (7)

Controllers- Role of a Controller-Controllers & Modules-Attaching Properties and functions to scope Nested Controllers- Using Filters in Controllers-Controllers in External Files-Angular JS Modules: Introduction to Angular JS Modules- Bootstrapping Angular JS-Angular JS Forms: Working with Angular Forms-Model Binding- Forms Events-Updating Models with a Twist-Form Controller- Validating Angular Forms- \$error object

UNIT 4: SINGLE PAGE APPLICATION (7)

Scope & Controllers- Root scope- Scope Broadcasting- Two-way data binding- Scope Inheritance Scope & Directives -Scope Events- Dependency Injection & Services- What is Dependency Injection Creating Services- Factory- Service & Provider-Using Dependency Injection- What are services- Using Angular JS built in services- Single Page Application (SPA)- What is SPA- Pros and Cons of SPA- Passing Parameters- Changing location- Installing the ng Route module- Configure routes- Resolving promises- Creating a Single Page Apps

UNIT 5: ANGULAR JS PAGING

(7)

Angular JS Paging: ng Module- CSS Transforms with bootstrap- CSS Styling- Applying FormModules- Angular Observables -Introduction to Observables - Using observables to pass data- Type-ahead suggestions using Observables- Server Interactions using HTTP- Introduction to Http Client Services- HTTP get vs post- Requesting and sending data to the server-Sending get Request- Sending put Request-Adjusting Request Headers

UNIT 6: REAL TIME PROJECT -HANDSON USING ANGULAR JS

(7)

Real Time Application 1: Deployment of the Application-Building the Application- Steps to host the application on some server-Hosting the Application- Real Time Application 2: Building a Real-time Website for an Imaginary University- Creating the Project Setup- Creating modules and grouping Components- Implementing and adding Routings- Adding necessary Material Components- Completing the contents- Hosting the Website- Group Presentation - Course Revision and Course Assesment

OUTCOMES

At the end of the course, the students will be able to

CO1: Explain the Effective Cross - Platform and figure out the problems regarding surf in the browser

CO2: Illustrate different Angular Javascript problems corresponding to different applications.

CO3: Made use of Angular Javascript with MEAN Stack consists of Mongo db, Express and Node Js so on...

CO4: Apply the concepts of Angular Javascript using node js , mongo db and express framework

CO5: Apply the concepts of utilization of Scripting languages, Framework and node js techniques in real time.

CO6: Apply the Conceptual knowledge to a real-world problem by optimizing techniques learned and report on the expected accuracy that can be achieved by applying those techniques.