Angular

Description

Angular is a TypeScript-based JavaScript front-end framework developed by Google for developing web applications.

Its main goal is to make it easier to develop Single Page Applications (SPA). Single-page applications are applications that improve the user experience without reloading the page and dynamically replacing the content with data retrieved from the server. Angular course is a training program that aims to teach participants the Angular framework. This course covers the basics, components, services, modules, and other important topics of Angular. Angular training is usually aimed at people who aim to develop web applications with Angular, such as web developers, software engineers, and front-end developers.

Outline

Module 1: Introduction to Angular

- What Angular is and why it's used
- Advantages and disadvantages of Angular
- Overview of the Angular ecosystem

Module 2: TypeScript Basics

- Introduction to the TypeScript language
- Variables, types, functions and classes
- Differences between TypeScript and JavaScript

Module 3: Creating and Configuring an Angular Project

- Using the Angular CLI
- Create a new Angular project
- Project file and folder structure

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Module 4: Components and Data Binding

- Component concept and creation
- Template and Data Binding
- Data communication between components

Module 5: Directives

- Directive concept and creation
- Use of important directives (ngIf, ngFor, etc.)

Module 6: Angular Services and Dependency Injection

- The role of services and creation
- What is Dependency Injection and how does it work
- Data processing through the use of the Services

Module 7: HTTP Request and Back-End Integration

- Making HTTP requests with Angular HttpClient
- Send requests to RESTful APIs and receive data
- Data integration with server side

Module 8: Routing and Navigation

- Page redirection with Angular Router
- Parameterized and child routes
- Dynamic routes and routing strategies

Module 9: Forms and Validation

- Creation of template-based forms
- Form validation and control of user inputs

Module 10: Observables and Asynchronous Programming

- The concept and use of observables
- Asynchronous data flow with RxJS operators

Module 11: State Management

- The importance of state management with Angular

- State management using Redux or RxJS

Module 12: Angular Material and Design Applications

- Use of Angular Material and basic components
- Applying visual design and layout to the app

Module 13: Project Implementation

- Developing a project implementation using what has been learned throughout the training
- Testing and improvement of the project

Module 14: Security and Deployment

- Security measures in the Angular app
- Distribution and publication of the application

Prerequisites

In order to be successful in this class, attendees are required to have current, hands-on experience in developing basic web applications, and be versed in HTML5, CSS3 and JavaScript.