Angular Training Course Syllabus

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Angular Training Course Training Course

About Course

This course guides you on the path on becoming a Application Developer on Angular with the knowledge of the Angular Framework, Modules and Components.

Target Audience

The Angular Training Course has been designed for people with no or little knowledge of Front End Development. This course benefits both freshers/students and experienced personnel willing to achieve careers as a Angular App Developer, User Interface Designer, Front End Developer, MEAN Stack Developer.

Pre-Requisite

There is no pre-requisite for this course. However, a prior experience in Javascript is suggested and will be counted beneficial.

Good-to-have Skills

Fundamentals of HTML/CSSFundamentals of Javascript

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Course Curriculum

1. Introduction to Angular

- Overview of Angular
- History of Angular
- Introduction to Angular and SPA
- Single vs Multi Page Applications
- NodeJS Intro (NPM)
- Introduction to MVC and MVVM
- Angular Hello World Demo
- Angular Folder Structure

Hands On

- Installation of Node
- Setting up environment for Angular Development
- Writing your First Angular Application

2. Introduction to JavaScript

- Objects
- Object Literal
- Classes
- Inheritance
- Encapsulation

Hands On

- Creating classes
- Creating objects using New keyword
- Creating objects with help of prototype pattern
- Creating objects using New keyword
- Creating objects with help of prototype pattern

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Course Curriculum

3. Typescript

- ¤ Overview
- ¤ Typescript Introduction (Introduction, When to use types / When not)
- ¤ The need for Typescript
- ¤ Installation Guide
- ¤ Node
- ¤ String Template
- ¤ Var let and const Keyword
- ¤ Arrow Functions
- ¤ Class
- ¤ Interface
- ¤ Inheritance
- ¤ Object Destructuring
- ¤ Maps and Sets
- ¤ Modules

Hands On

- ¤ Creation of a classes using Angular
- ¤ Reusability of the modules
- ¤ Creation and importing of Interfaces and modules

4. Angular Components and DOM Interactions

- ¤ Overview
- ¤ Angular CLI
- ¤ Components
- ¤ Describe Components and Creation
- ¤ Multiple Components and Passing data
- ¤ Nested Components
- ¤ Angular Components Lifecycle
- ¤ Component creation strategies

Hands On

- ¤ Components creation
- ¤ Using of Metadata
- ¤ Passing data among Multiple Components,
- ¤ DOM Manipulation using Angular APIs

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5. Introduction to Bootstrap

¤ Introduction to Bootstrap
¤ Bootstrap 4

Hands On

¤ Installing Bootstrap
¤ Using Bootstrap through online CDNs
¤ Creating a Responsive SPA

6. Third-party Library Integration, Other APIs

¤ Introduction to Third party library integration
¤ Introduction to SystemJS/CommonJS
¤ Integrating JQuery/Socket.io
¤ Introduction to i18n and l10n

Hands On

¤ Integrating Third party libraries
¤ Using Socket.IO
¤ I18N and L10N
¤ Other APIs

7. Binding and Events

¤ Overview
¤ Template Model
¤ Binding
¤ Data Binding
¤ Property Binding
¤ Event Binding
¤ Two Way Binding

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Hands On

- ¤ Dynamic binding with Event Binding
- ¤ Two Way Data Binding examples
- ¤ Exercise programs for String Interpolation

8. Dependency Injection and Service

- ¤ Overview
- ¤ Introduction to Dependency Injection
- ¤ Dependency Injection API
- ¤ Service Overview
- ¤ Creating a Service
- ¤ Sharing data between components

Hands On

- ¤ Overview
- ¤ Introduction to Dependency Injection
- ¤ Dependency Injection API
- ¤ Service Overview
- ¤ Creating a Service
- ¤ Sharing data between components

9. Directives

- ¤ Overview
- ¤ Angular Directives
- ¤ Types of Directives
- ¤ Built-in Angular Directives
- ¤ Custom Directives
- ¤ Custom Structural Directives

Hands On

- ¤ Working with Inbuilt Directives *ngIf, *ngFor, ngClass etc
- ¤ Creation of Custom Directives.

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10. Pipes

- ¤ Overview
- ¤ Introduction to Pipes
- ¤ Built-in Pipes
- ¤ Custom Pipes

Hands On

- ¤ Formatting a data with the inbuilt Pipes
- ¤ Creation of custom Pipes for a specific formatting

11. Forms

- ¤ Overview
- ¤ Angular Form Benefits
- ¤ Template driven Forms
- ¤ Angular Validation
- ¤ Model driven Forms (Reactive Forms)

Hands On

- ¤ Form Validation with Template Driven Forms
- ¤ Reactive Forms validation

12. Routing And Navigation

- ¤ Overview
- ¤ Routers
- ¤ Single Page Application (SPA)
- ¤ ngModule
- ¤ Router Basics
- ¤ Parameter Routing
- ¤ Child Routes
- ¤ Router Lifecycle Hooks

Hands On

- ¤ Implementation of Routing and Navigation
- ¤ Working with Child Routes, Nested Routes and Route Guards

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13. HTTP Promises and Observables

¤ Overview
¤ Working with RxJS
¤ Inbuilt Features - HTTP Requests
¤ Angular Interaction with HTTP Get
¤ HTTP Post
¤ Difference between Observables vs Promises

Hands On

¤ Implementation of HTTP
¤ Handling Errors in Angular application
¤ Data Transportation

14. Unit Testing

¤ Overview and need of testing
¤ Unit testing
¤ Related Tools and Setup
¤ TDD
¤ Testing an Angular class
¤ Introduction to Jasmine Framework
¤ Unit Test Environment and set up using Angular CLI
¤ Angular Unit Testing with TestBed
¤ Testing Service
¤ Testing DOM
¤ E2E Testing

Hands On

¤ Installing protractor through npm
¤ Writing test cases using jasmine

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