

## **ANGULAR 11 WITH TYPESCRIPT 4**

### **1) Introduction To Typescript**

- Introduction to Typescript
- JavaScript & Typescript

### **2) Oops In Typescript**

- Classes, Class properties, Static Properties
- Constructors, getters & setters
- Inheritance, Abstract classes, Interfaces
- Access modifiers

### **3) Namespaces And Modules**

- Namespaces and multiple files
- Loading modules

### **4) Generics**

- Generic functions, classes
- Generic types and arrays
- Constraints

### **5) Decorators**

- Class Decorators
- Decorator Factories
- Method Decorators
- Property Decorators
- Parameter Decorators

## **ANGULAR 10**

### **1) Introduction to angular framework**

- Introduction to Angular Framework, History & Overview
- Environment Setup
- Angular CLI, Installing Angular CLI
- NPM commands & package.json
- Bootstrapping Angular App, Components, AppModule
- Project Setup, Editor Environments
- First Angular App & Directory Structure
- Angular Fundamentals, Building Blocks
- MetaData

### **2) Essentials Of Angular**

- Component Basics
- Setting up the templates
- Creating Components using CLI
- Nesting Components
- Data Binding - Property & Event Binding, String Interpolation, Style binding
- Two-way data binding
- Input Properties, Output Properties, Passing Event Data

### **3) Templates, Styles & Directives**

- Template, Styles, View Encapsulation, adding bootstrap to angular app
  - Built-in Directives
  - Creating Attribute Directive
  - Using Renderer to build attribute directive
  - Host Listener to listen to Host Events
  - Using Host Binding to bind to Host Properties
  - Building Structural Directives
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#### 4) Pipes, Services & Dependency Injection

- Parametrized Pipes
- Chaining Multiple Pipes
- Creating a Custom Pipe
- Creating a Filter Pipe
- Pure and Impure Pipes (or: How to "fix" the Filter Pipe)
- Understanding the "async" Pipe
- Services
- Dependency Injections
- Creating Data Service
- Understanding Hierarchical Injector
- Services for Cross Component Communication
- Injection Tokens

#### 5) HTTP Requests

- App & Backend Setup
- Sending Requests (Example: POST Request)
- Adjusting Request Headers
- Sending GET Requests
- Sending a PUT Request
- Transform Responses Easily with Observable Operators (map())
- Using the Returned Data
- Catching Http Errors
- Using the "async" Pipe with Http Requests

#### 6) Observables & RXJS Operators

- Basics of Observables & Promises
- Analysing a Built-in Angular Observable
- Building & Using a First Simple Observable
- Building & Using a Custom Observable from Scratch
- Understanding Observable Operators

- Using Subjects to pass and listen to data

#### 7) Authentication and Route Protection

- How Authentication works in SPA
- JWT Module, JSON Web Tokens
- Signup, Login and logout application
- Router Protection, Route Guards
- CanActivate interface
- Checking and using Authentication Status, Router Protection and Redirection

### NODE INTRODUCTION

#### MEAN STACK

##### 1) State Management

- NgRx Package

##### 2) Angular Material

- Using Angular Material in Angular Application Development
- Pagination
- Sorting
- Filtering

##### 3) Cloud Deployment

- AWS Deployment
  - Heroku Deployment
  - CI / CD
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