

## 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

#### 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

