

# Angular 15

## Table of content:

### 1: Single Page Applications, Why Angular and Project Setup

- Course Overview
- Introduction to SPA
- What do we need Angular for?
- Setting up the Development Environment.
- Angular Application Architecture
- Angular CLI
- Project Structure

### 2: TypeScript and ESNext:

- What is TypeScript
- Basic Types in TypeScript
- Variable Declarations using Let and Const
- Spread and Destructure.
- Classes
- Interfaces
- Arrow Functions
- Modules
- fetch API
- async / await

### 3: Angular Modules and Angular Components

- Working with Modules
- @Component
  - Angular Components and the @Component Decorator
  - Creating an Angular Component using the Angular CLI
  - Component Decorator Metadata
  - Stable Standalone Components API (new feature)
- Data/Property Binding
  - Interpolation
  - Property Binding
  - Event Binding
  - Two-way Data Binding [(ngModel)]
- Built-In Directives
  - \*ngFor, \*ngIf
  - Introduction to the Directive Composition API
  - ngClass, ngStyle
  - Stable “NgOptimizedImage” Image Directive (new feature)
- Inter-component Communication (@Input/@Output, Event Emitter)
- Template variables (ViewChild/ContentChild)
- Lifecycle hooks

#### 4: Forms

- Template Driven Forms
- Reactive forms
- Form Validations
- Custom Synchronous form validations
- Custom Asynchronous form validations

#### 5: Pipes

- Built-in Pipes
- Custom Pipes

## **6: Services**

- Service as a singleton, data sharing.
- HttpClient, HttpHeaders
- Observables with Operators like the map, subscribe, catch, retry etc
- Subjects
- Sharing data across Components using Service
- Http with provideHttpClient (new feature)

## **7: Routing**

- Child routes
- Route params
- Route Guards - CanActivate, CanActivateChild, CanDeactivate,
- Feature Module
- Lazy loading implementation
- Reduce Boilerplate in Guards (new feature)
- Router Unwraps Default Imports (new feature)
- Enablement to Develop Multi-Route Application (new feature)

## **8: Integrating with Third-Party Libraries**

- Angular Material
- Stable MDC-based Components (new feature)

## **9: Unit Testing**

- Introduction to Unit testing
- Test Component
- Test Services

- Coverage Report

## **10: New Feature**

- Extended esbuild support
- Cleaner, Better Stack Traces
- Automatic Imports in Language Service
- Optimized CLI with a Bunch of Improvements