

AngularJS Course Syllabus

Section 1: Getting Started with Angular 5:

- Course Introduction
- What is Angular
- Angular vs Angular 2 vs Angular 4 vs Angular 5
- CLI Deep Dive
- Project Setup and First App
- The course Structure
- What is TypeScript
- A basic setup of Bootstrap for Styling

Section 2: The Basics of Angular 5

- Module Introduction
- How an Angular App gets loaded and started
- Components
- Creating new Component
- Understanding the role of AppModule and Component Declaration
- Understanding Component Templates
- Understanding Component Styles
- Understanding Component Selector

Section 3: Databinding & Directive Concepts

- Module Introduction
- What is Databinding
- String Interpolation
- Property Binding
- Property Binding vs String Interpolation
- Event Binding
- Bindable Properties and Events
- Passing and Using Data using Event Binding
- Two-Way Binding
- Forms Module and Two Way Binding
- Understanding Directives
- Using ngIf and Else Conditions
- Using ngStyle for Styling Angular App
- Applying css Class dynamically with ngClass
- Displaying Lists using ngFor

Section 4: Advanced Component and Databinding

- Module Introduction
- Dividing the App into multiple components
- Property and Event Binding deep dive
- Binding to custom properties

- Binding to custom events
- View Encapsulation
- Understanding Local Reference inside Templates
- Getting Access to the templates using @ViewChild.
- Exploring Component Life Cycle
- Life cycle hooks deep dive

Section 5: Advance Directive Concepts

- Creating a basic custom attribute directive
- Exploring Renderer to create a Directive
- Understanding HostListener and HostBinding
- Binding to Directive's Properties
- Building Structural Directives
- Exploring ngSwitch

Section 6: Understanding Services and Implementing Dependency Injection

- Module Introduction
- Why Services are required
- Creating a Service
- Injecting the service into components
- Understanding Dependency Hierarchical Injector
- Injecting a Service into other services

Section 7: Routing in Angular 5

- Module Introduction
- Understanding the need of a Router
- Setting Up and implementing Routes
- Navigating to Router Links
- Understanding Router Paths
- Styling Active Router Links
- Understanding Navigation Paths
- Styling Router Links
- Navigating Dynamically
- Using Relative Paths
- Passing Parameters to Routes and fetching route parameters
- Fetching route parameters in a Reactive Way
- Passing query parameters and fragments
- Understanding Nested Routes
- Redirecting and Wildcard routes
- Redirection Path Matching
- Outsourcing the Route Configuration
- Introduction to Guards
- Understanding can activate
- Understanding can Activate Child

- Understanding can deactivate
- Passing Static Data to a Route
- Understanding Resolve Guard
- Exploring Location Strategies

Section 8: Observables in Angular 5

- Module Introduction
- Understanding built-in Angular Observable
- Creating Observables
- Using a Custom observable
- Unsubscribe
- Using Subjects to pass and Listen to Data
- Understanding Observable Operators

Section 9: Forms in Angular 5

- Module Introduction
- Need of Angular's help
- Template Driven vs Reactive Approach

Template Driven Approach

- TD: Creating the Form and Registering the controls
- TD: Submitting and Using the form
- TD: Understanding Form's State
- TD: Accessing Form using @ViewChild

- TD: Adding Validation to user input
- TD: Built-in Validator and using HTML 5 Validation
- TD: Understanding Form State
- TD: Outputting Validation Error Messages
- TD: Set Default Value with ngModel Property Binding
- TD: Using ngModel and two-way binding
- TD: Grouping Form Controls
- TD: Using Form Data

Reactive Form Approach

- Reactive: Creating a Form in Code
- Reactive: Submitting the form
- Reactive: Adding Validation
- Reactive: Getting Access to Controls
- Reactive: Grouping Controls
- Reactive: Form Array
- Reactive: Custom Validators
- Reactive: Exploring Error Codes
- Reactive: Custom Async Validator

Section 10: Exploring Pipes in Angular 5

- Module Introduction
- Using Pipes

- Parameterizing Pipes
- Chaining Multiple Pipes
- Creating a custom Pipe
- Pure & Impure Pipes
- Understanding the Async Pipe

Section 11: Making HTTP Requests in Angular 5

- Introduction & how HTTP request works in SPAs
- Sending POST Request
- Adjusting request headers
- Sending GET requests
- Sending PUT Requests
- Response with observable operators
- Catching HTTP errors
- Using the async pipe with HTTP Requests

Section 12: Authentication & Route Protection in Angular Apps

- Module Introduction
- How Authentication works in SPAs
- Introduction to JWT
- Creating a Signup Page and Route
- Setting up Firebase SDK
- Signing users up



- Signing users in
- Token introduction
- Sending a token
- Route protection and redirection example.

Section 13: Typescript Introduction

- Module Introduction
- Using types
- Classes
- Interface
- Generics
- Wrap up & Modules
- Deep dive into typescripts.

Section 14: Project: This section will cover a course project where we will try to implement all the topics we covered in each session. The course project will run after completion of each module.