Angular Course Syllabus

Introduction to Angular8   (Duration: 1.5Hrs)

Learning Objective:

First things first! What is Angular? Why would you want to learn it? This session helps with to answer this question. So many Angular versions! What's up with them and which version does this course cover? Enough of the talking, let's create our first Angular project and view our first app in the browser.

Topics:
- What is Angular?
- Angular vs Angular 2 vs Angular 8
- CLI Deep Dive & Troubleshooting
- Project Setup and First App
- What is TypeScript?
- Tools we use in Angular 8

Hands-On:

Creating our first Angular 8 app and modify it.

Data Bindings, ng-for, style management, pipes, build in Directives   (Duration: 3Hrs)

Learning Objective:

This session will help you understand how angular 8 use data binding, uses of build-in directives, pipes.

Topics:
- Creating a Dashboard
- ngFor & Nested ngFor
- Overview of Data Bindings & Working with All Types of Binding
- Style Handling & ngClass
- ngIf & ngIf-else & ng-template
- Built-in Pipes & Date Formats
- ngSwitch

Hands-on:
- How to use build-in Directives, build in pipes, style handling.

Modules and Services   (Duration: 3Hrs)

Learning Objective:

This session will help you understand how to create custom modules , services and dependency injunction.

Topics:
- Creating Custom Modules
- Creating Services & Dependency Injection

Hands-on exercises:
- creating custom modules & services and how we can use dependency injunction.

Authentication and security   (Duration: 2Hrs)

Learning Objective:

This session will help you understand why we use jwt in angular and what is jwt. Why Authentication and security is important.

Topics:
- User Authentication in Asp.Net Core Mvc
- User Authentication in Angular
- Understanding JWT
- JWT Authentication in Asp.Net Core Mvc
- JWT Authentication in Angular
- Http Interceptors
- Catching 401 UnAuthorized Responses using Interceptors
- can activate Guard
- Role-Based Authentication
- Prevent XSRF (Cross-Site Request Forgery)
- prevent XSS(cross-site scripting)

Hands-on Lab:
- how to use jwt in angular and XSRF and XSS.

Template Driven Forms   (Duration: 2Hrs)

Learning Objective:

This session will help you understand what is template-driven forms and how to create it and how to validate it.

Topics:
- Adding CheckBox, RadioButton, DropDownList with Foreign Key
- Validations in Template Driven Forms

- Custom Validations in Template Driven Forms
- Cross Field Custom Validations in Template Driven Forms
- Async Custom Validations in Template Driven Forms with REST-API Calls

Hands-on:
- Create Template-driven form
- validate forms.

Reactive Forms (Duration: 2Hrs)

Learning Objective:

This session will help you understand how Reactive Forms work. Adding components in reactive forms and validation of forms.

Topics:
- Understanding Reactive Forms & Creating SignUp Form using Reactive Forms
- Adding Radio Buttons to Reactive Forms
- Adding Dynamic Radio Buttons to Reactive Forms
- Adding Dynamic DropDownList to Reactive Forms
- Adding CheckBox to Reactive Forms
- Subscribing to value changes Observable
- setValue, patchValue, reset
- Nested Form Groups
- Form Arrays
- Form Builder
- Validations in Reactive Forms
- Adding Validation Error Messages
- Custom Validations
- Cross Field Validations
- Submitting SignUp Form using REST API Call
- Async Validations with REST API Call

Hands-on:
- Create a simple form with input and output.

Component Communication (Duration: 2Hrs)

Learning Objective:

This session will help you understand how the parent component communicates with child component & component communication using services.

Topics:

- Parent To Child Communication – using Input Binding
- Child To Parent Communication – using Output Binding with Custom Events
- Parent to Child – using ViewChild
- Adding Dynamic DropDownList to Reactive Forms
- Parent to Child – using ViewChildren
- Component Communication using Services
- Custom RxJS Observables
- RxJS Subject
- RxJS BehaviorSubject
- Passing Content from Parent to Child
- Child to Grand Child – using ContentChild
- Child to Grand Child – using ContentChildren
- ElementRef

Hands-on:

- How two-component communicate. Rxjs Codes.

Debugging and
Auto Deployment   (Duration:
1.5Hrs)

Learning Objective:

This session will help you understand how to debug angular.

Topics:
- Debugging the Angular Code
- Using Gulp for Continuous Deployment

Hands-on:
- How To debug the code.

Life Cycle Hooks   (Duration: 2Hrs)

Learning Objective:

This session will help you understand the lifecycle hooks.

Topics:
- Overview of Life Cycle Hooks
- ngOnChanges
- ngOnInit
- ngDoCheck
- ngAfterContentInit and ngAfterContentChecked

- ngAfterViewInit, ngAfterViewChecked
- ngOnDestroy

Hands-on:

- The flow of Lifecycle using code.

Pipes – Deep Dive   (Duration: 2Hrs)

Learning Objective:

This session will help you understand how to debug angular.

Topics:

- Creating a Simple Custom Pipe
- Parameterized Custom Pipe
- Creating Complex Custom Pipe
- Pure Pipes (vs) Inpure Pipes
- Client-Side Paging using Custom Pipe
- Async Pipe

Hands-on:

- How To use pipes.

Directives – Deep Dive   (Duration: 2Hrs)

Learning Objective:

This session will help you understand Deep Dive into Directives.

Topics:

- Attribute Directives (vs) Structural Directives
- Custom Directives
- Receiving Parameters using Input Properties in Directives
- HostListener
- HostBinding
- Renderer2
- Creating Custom Structural Directive

Hands-on:

- Deep dive on directives using code.

Advanced Routing   (Duration: 2Hrs)

Learning Objective:

This session will help you understand Routing.

Topics:

- Route Parameters
- Child Routes
- Nested Routes in AdminModule
- Router Events
- Server-Side Logging using Router Events

Hands-on:

- Routes with Examples.

Animations   (Duration: 2Hrs)

Learning Objective:

This session will help you understand how can be use animation in Angular.

Topics:

- Introduction to Animations
- Fade Animation
- Slide-Up Animation
- Zoom-Up Animation
- Zoom-Left Animation
- Slide-Left or Right Animation
- Keyframe Animation
- **Hands-on:**
- Understand animation with example.

Dynamic Components   (Duration: 2Hrs)

Learning Objective:

This session will help you understand the Dynamic Component in depth.

Topics:

- Preparing for Dynamic Components
- Preparing Masters Menu Dynamically
- Loading Components Dynamically into Tabs
- Data Binding to Dynamic Components
- Destroying Dynamic Components

Hands-on:

- creating dynamic components and how to use dynamic components.