

CANOPUS DATAWEB

ANGULAR SYLLABUS (ONLINE)

Basics Of Web Development

Objective:

This interactive web development course module for beginners will teach you how to write and design your own web pages using HTML, CSS, and JavaScript.

Module: Semantic Web Page Layout with HTML

- What is HTML?
- Attributes + Hyperlinking
- Headings + Lists
- Inline vs. Block Elements + Divs
- id + class Attributes
- The img Element
- Delving into Semantics
- HTML Tables
- HTML Forms

Module: Styling HTML Content using CSS

- What is CSS?
- Introduction to the Cascade
- Basic CSS Selectors
- Selector Combinations
- The Box Model
- Color
- Font Styling + Web fonts
- Text Alignment + Sizing

Module: Introduction to JavaScript, Basic Data Types + Operators

- What is JavaScript?
- Numbers
- Strings
- Booleans
- Undefined / Null

Introduction To Angular

Module: Introduction

Objective:

Learn Angular quickly and effectively by following a series of short tutorials that each address a single well-defined topic.

Topics:

- What is Angular?
- Angular vs Angular 2 vs Angular 10
- 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.

Module: Data Bindings, ng-for, style management, pipes, build in Directives

Objective:

This session will help you understand how angular 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

Module: Modules and Services

Objective:

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

Topics:

- Creating Custom Modules
- Creating Services & Dependency Injection
- Hands-on exercises:
- creating custom modules & services and how we can use dependency injection

Module: Template Driven Forms

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.

Module: Reactive Forms

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 Dropdown List 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.

Module: Component Communication

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.

Module: Debugging and Auto Deployment

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.

Module: Life Cycle Hooks

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.

Module: Pipes – Deep Dive

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) Impure Pipes
- Client-Side Paging using Custom Pipe
- Async Pipe

Hands-on:

- How To use pipes.

Module: Directives – Deep Dive

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.

Module: Advanced Routing

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.

Module: Animations

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.