

ANGULAR 19

Introduction to Angular

- What is Angular
- Purpose of Angular
- Why Angular
- Web Application
- High Level Architecture of Web Application
- Purpose of Front end, Backend and Database

Understanding the Framework and Development Platform

- What is Framework
- Difference between Library and Framework
- Benefits of Framework
- What is Development Platform

Introduction to Javascript

- Definition
- Purpose
- Variables
- Data types
- Loosely typed Programming Language

Introduction to TypeScript

- What is typescript
- Installation of Typescript
- Variables
- Data types
- Type Inference
- Type Assignment
- Object type
- Tuple
- Enum

- Any type's
- Union type
- Literal Type

Control Statements or Loops

- If
- Else
- Else if
- Switch
- For
- While

Operator's

- Comparison Operators
- Relative Operators
- Logical
- Spread
- Delete

Oops In Typescript

- Classes,
- Class properties,
- Static Properties
- Constructors,
- getters & setters
- Inheritance,
- Abstract classes,
- Interfaces
- Access modifiers

Module Scope

- Es6 Module Pattern
- Import and export
- Named export
- Default export

Development Setup of Angular

- Angular Environment Setup
- IDE for writing your code (Editor)
- What is Node.js
- Installing VS Code
- Installing Node.js and NPM
- Installing Angular CLI
- Creating a New Angular Project
- Building the Application
- Running the Application
- Editing the First App

Components in Angular

- What is Component
- How to create a Component without CLI
- How to create a Component using CLI
- View Template of Component
- Model of Component
- Styling the Component
- Creating Multiple Components
- Understanding Relationship between Components

Data Binding

- What is data binding
- Types of Data binding
- Property Binding
- String Interpolation
- Event Binding
- Two Way Data Binding

- **Angular Directives**

- Introduction to Directives
- Types of Directives
- ngFor Directive
- ngIf Directive
- ngSwitch Directive
- ngStyle
- ngClass

- **Decorator's**

- @Input()
- @Output
- How to share data from Parent to Child Component
- How to share data from Child to Parent Component
- What is template reference variable
- How to create it
- @ViewChild
- @ViewChildren
- ng-Template
- Ng-content
- ng-Container
- @contentChild
- @contentChildren

- **Angular Services**

- What is Service
- How to create a Service and use Service
- Injecting Service
- Dependency Injection
- Components interaction with Services

- **Angular Pipes**

- What are Pipes
- Built in Pipes
- Custom Pipes
- Pure and Impure Pipes

- **HTTP Requests**

- App & Backend Setup
- Sending Requests (Example: POST Request)
- Adjusting Request Headers
- Sending GET Requests
- Sending a PUT Request
- Delete Request
- Authentication with JWT
- Transform Responses Easily with Observable Operators (map())
- Using the Returned Data Catching Http Errors

- **Observables & RXJS Operators**

- Basics of Observables & Promises
- Building & Using a First Simple Observable
- Building & Using a Custom Observable from Scratch
- Understanding Observable Operators
- Map
- Filter
- Of
- From
- What is Subject
- Difference between Observable and Promise
- Difference between Subject and Observable

- **Routing in Angular App**

- Routing and Navigation
- The Component Router
- Component Router Terminology
- Setting up the Component Router
- A Basic App with Routing
- Router Outlet

- Router Link
- Redirecting Routes
- Wildcard Route
- Child Routes / Nested Routes
- Parameterize Route
- Route Guards
 - CanActivate
 - CanActivateChild
 - CanDeactivate
- NavigateByUrl
- Query Parameters

- **Angular Forms**

- What is form?
- Forms in Angular
- Template Driven Forms
 - Introduction to Template Driven Forms
 - Reading Form Control Values
 - Touched, Untouched Property
 - Dirty, Pristine Property
 - Form Validation
 - How to Show Custom Validation
 - Grouping Form Controls
 - setValue, patchValue, reset

- **Model-driven forms (Reactive forms)**

- Introduction to Reactive Forms
- Form Validation
- Show Validation Messages
- Grouping Form Controls
- FormArray
- Creating Form Array
- Adding Forms Dynamically
- setValue and patchValue

- **Introduction to Angular Material**

- Installation of Angular Material
- Angular Material Modules
- Buttons and Icons
- Theming in Angular Material
- Menus
- Cards
- Dialogs
- Tables
- Tabs
- Input
- Select
- Checkbox and Radio Button
- Stepper

- **Overview of Angular Testing (Recorded Form)**

- Introduction to Angular Unit Testing
- Component Testing
- Service Testing
- Before Each Method
- Http Methods Testing