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ANGULAR JS /ANGULAR

Introduction

- **AngularJS Intro**
 - What is AngularJS?
 - Key Features
 - AngularJS vs Angular
- **AngularJS Features**
 - Two-Way Data Binding
 - Dependency Injection
 - Directives
- **AngularJS Expressions**
 - Expression Syntax
 - Interpolation
 - Data Binding with Expressions
- **AngularJS Directives**
 - Built-in Directives
 - Custom Directives
 - Directive Lifecycle
- **AngularJS Model**
 - ng-model Directive
 - Model Binding
 - Model Validation
- **AngularJS Data Binding**
 - One-Way Data Binding
 - Two-Way Data Binding
 - Data Binding Syntax
- **AngularJS Filters**
 - Built-in Filters
 - Custom Filters
 - Filter Syntax
- **AngularJS Services**
 - Built-in Services
 - Creating Custom Services

- Service Injection
- **AngularJS Http**
 - Using \$http Service
 - Making GET and POST Requests
 - Handling Responses and Errors
- **AngularJS Tables**
 - Displaying Data in Tables
 - Table Directives
 - Sorting and Pagination
- **AngularJS Select**
 - Using ng-options
 - Binding Select Options
 - Handling Selection Changes
- **AngularJS SQL**
 - Integrating with SQL Databases
 - Using \$http to Query Databases
 - Handling SQL Data
- **AngularJS DOM**
 - DOM Manipulation with AngularJS
 - Working with ng-show/ng-hide
 - Using ng-class and ng-style
- **AngularJS Events**
 - Event Handling
 - Event Directives (ng-click, ng-change)
 - Custom Events

Forms and Validation

- **AngularJS Forms**
 - Form Controls and Directives
 - Form Validation
 - ng-model and ng-form
- **AngularJS Validation**
 - Built-in Validators
 - Custom Validators
 - Validation States and Styling

APIs and Routing

- **AngularJS API**
 - Creating API Endpoints
 - Consuming APIs
 - Handling API Data
- **AngularJS Routing**
 - Configuring Routes

- Using \$routeProvider
 - Route Parameters and Resolves
- **AngularJS Includes**
 - Using ng-include
 - Dynamic Content Loading
- **AngularJS Animations**
 - Using ngAnimate
 - Animation Directives
 - Custom Animations
- **Directives**
 - Built-in Directives
 - Custom Directives
 - Directive Parameters and Usage
- **Filters**
 - Built-in Filters
 - Custom Filters
 - Filter Options and Usage

Typescript

TypeScript Tutorial

Introduction

- **TS Introduction**
 - What is TypeScript?
 - Key Features of TypeScript
 - TypeScript vs JavaScript

Getting Started

- **TS Get Started**
 - Installing TypeScript
 - Setting Up a TypeScript Project
 - Compiling TypeScript

Basic Types

- **TS Simple Types**
 - Boolean
 - Number
 - String
 - Array
 - Tuple
 - Enum

- Any
- Void
- Null and Undefined

Advanced Types

- **TS Special Types**
 - Never
 - Unknown
 - Type Assertions
- **TS Arrays**
 - Array Types
 - Array Methods
- **TS Tuples**
 - Tuple Types
 - Tuple Operations
- **TS Object Types**
 - Object Type Definition
 - Object Type Properties
 - Optional Properties
 - Readonly Properties

Enums and Interfaces

- **TS Enums**
 - Numeric Enums
 - String Enums
 - Heterogeneous Enums
- **TS Aliases & Interfaces**
 - Type Aliases
 - Interface vs Type Alias
 - Extending Interfaces
 - Merging Interfaces

Advanced TypeScript

- **TS Union Types**
 - Union Type Syntax
 - Using Union Types in Functions
- **TS Functions**
 - Function Types
 - Optional and Default Parameters
 - Rest Parameters
 - Overloading Functions

Object-Oriented Programming

- **TS Classes**
 - Class Declaration
 - Constructors
 - Inheritance
 - Access Modifiers
 - Getters and Setters
 - Static Members
 - Abstract Classes

Generics and Utility Types

- **TS Basic Generics**
 - Generic Functions
 - Generic Classes
 - Generic Interfaces
- **TS Utility Types**
 - Partial
 - Readonly
 - Record
 - Pick
 - Omit

JavaScript

Introduction

- **JS Introduction**
 - What is JavaScript?
 - History of JavaScript
 - Key Features
 - JavaScript vs Java

Basics

- **JS Syntax**
 - Syntax Rules
 - Statements and Semicolons
 - Code Blocks
- **JS Comments**
 - Single-Line Comments
 - Multi-Line Comments
- **JS Variables**
 - var, let, and const

- Variable Scope
- Hoisting

- **JS Data Types**
 - Primitive Data Types
 - Non-Primitive Data Types
 - Type Conversion
- **JS Numbers**
 - Number Types
 - Mathematical Operations
 - Number Methods
- **JS Casting**
 - Implicit Type Conversion
 - Explicit Type Conversion
- **JS Strings**
 - String Creation
 - String Methods
 - String Interpolation
- **JS Booleans**
 - Boolean Values
 - Logical Operators
- **JS Operators**
 - Arithmetic Operators
 - Comparison Operators
 - Logical Operators
 - Assignment Operators
 - Conditional (Ternary) Operator

Control Flow

- **JS If...Else**
 - Simple If Statement
 - If-Else Statement
 - Else-If Ladder
- **JS Switch**
 - Switch Statement Syntax
 - Case and Default
 - Using Break and Continue
- **JS Loops**
 - For Loop
 - While Loop
 - Do-While Loop
 - Loop Control (break, continue)

- For...In and For...Of Loops

Functions

- **JS Functions**
 - Function Declaration
 - Function Expression
 - Arrow Functions
 - Function Parameters and Arguments
 - Returning Values
- **JS Lambda**
 - Lambda Expressions
 - Arrow Functions vs Regular Functions

Objects and Arrays

- **JS Objects**
 - Object Creation
 - Object Properties and Methods
 - Object Destructuring
- **JS Arrays**
 - Array Creation
 - Array Methods (push, pop, shift, unshift, etc.)
 - Array Destructuring
 - Array Iteration (forEach, map, filter, etc.)

Advanced Topics

- **JS JSON**
 - JSON Syntax
 - Parsing JSON
 - Stringifying JSON
- **JS RegEx**
 - Regular Expressions Syntax
 - RegEx Methods (test, exec)
 - Common RegEx Patterns
- **JS PIP**
 - Introduction to pip (if applicable)
- **JS Try...Catch**

- Error Handling
- Try...Catch Syntax
- Finally and Throw
- **JS User Input**
 - Prompt Dialog
 - Handling User Input
 - Validating Input

DOM Manipulation

- **JS Document Object Model (DOM)**
 - Understanding the DOM
 - Selecting Elements (getElementById, querySelector)
 - Manipulating Elements (innerHTML, textContent, style)
 - Event Handling (addEventListener, removeEventListener)
- **JS Events**
 - Event Types
 - Event Bubbling and Delegation
 - Event Properties (target, currentTarget)

Object-Oriented Programming

- **JS Classes**
 - Class Declaration
 - Constructor
 - Methods and Properties
 - Inheritance
 - Getters and Setters
 - Static Methods
 - Abstract Classes

ES6+ Features

- **JS ES6**
 - let and const
 - Arrow Functions
 - Template Literals
 - Destructuring Assignment
 - Spread and Rest Operators

- **JS ES7**
 - Exponentiation Operator
 - Array Includes Method
- **JS ES8**
 - Async/Await
 - Object.entries and Object.values
- **JS ES9**
 - Rest/Spread Properties
 - Asynchronous Iteration
- **JS ES10**
 - Array.flat and Array.flatMap
 - Optional Catch Binding
- **JS ES11**
 - String.prototype.matchAll
 - BigInt

Asynchronous JavaScript

- **JS Callbacks**
 - Callback Functions
 - Error-First Callbacks
- **JS Promises**
 - Creating Promises
 - Chaining Promises
 - Error Handling with Promises
- **JS Async/Await**
 - Using Async/Await
 - Error Handling with Async/Await

JavaScript APIs

- **JS Web APIs**
 - Fetch API
 - DOM API
 - Geolocation API
 - Web Storage API (LocalStorage, sessionStorage)
- **JS Fetch**
 - Making HTTP Requests
 - Handling Responses
 - Error Handling

Modules

- **JS Modules**
 - Module Syntax (import, export)
 - Default vs Named Exports
 - Dynamic Imports