**ANGULAR COURSE OUTLINE**

***Duration :*** 05 days

***Prerequisites :*** experienced JavaScript developers with fairly advanced understanding of JavaScript.

**Software/Hardware :**

* + Windows 10
  + Node Installer
  + 8GB RAM
  + Latest Browser : Chrome, Firefox
  + Any preferred IDE (Sublime, VS Code, Atom etc.)
  + Internet Connection
  + Permission to download and install libraries on participants’ machine

***Course Outline :***

***Day 01***

1 - Introduction to Angular

* What is Angular?
* Central Features of the Angular Framework
* Why Angular?
* Scope and Goal of Angular
* Installing and Using Angular
* Understanding Angular and its Dependencies
* Building Blocks of and Angular Application
* A Basic Angular Application

2 - Introduction to TypeScript and ES6+

* TypeScript Syntax
* The Type System
* Destructuring – Objects & Arrays
* Class Constructors
* Interfaces
* Working with Modules
* TypeScript Transpilation
* Arrow Functions
* Template Strings
* Promise / Async…Await

**Day 02**

3 - Components in Angular

* What is a Component?
* An Example Component
* Component Starter
* Component Decorator Properties
* Component Lifecycle Hooks

4 - Data and Event Binding

* Binding Syntax
* One-Way Output Binding
* Binding Displayed Output Values
* Two-Way Binding of Input Fields
* Binding Events

5 - Structural Directives

* Structural Directives
* Adding and Removing Elements Dynamically
* Creating Tables/Lists with ngFor
* ngSwitch & ngIf/else

6 - Attribute Directives and Property Bindings

* Apply Styles by Changing Classes
* Changing Classes - Example
* Applying Styles Directly
* Directives and Property Binding
* Controlling Element Visibility
* Setting Image Source Dynamically
* Custom Directives

**Day 03**

7 - Forms

* Template Driven Forms
* A Basic Angular Form
* Binding Input Fields
* Accessing the Form Object
* Binding the Form Submit Event
* Basic HTML5 Validation
* HTML5 vs. Angular Validation
* Angular Validations
* Displaying Form Validation State
* Displaying Field Validation State
* Displaying Validation State Using Classes
* Disabling Submit when Form is Invalid
* Submitting the Form
* Reactive Forms

8 - Pipes and Data Formatting

* What are Pipes?
* Formatting Changes in Angular
* Using a Built-in Pipe
* Using Pipes in HTML
* Chaining Pipes
* CurrencyPipe
* Custom Pipes

**Day 04**

9 - Service and Dependency Injection

* What is a Service?
* Creating a Service
* What is Dependency Injection?
* Injecting Services
* Using a Service in a Component: Dedicated Instance
* Using onInit to Initialize Component Data
* Using a Shared Service Instance

10 - HTTP Client

* The Angular HTTP Client
* Using The HTTP Client - Overview
* Setting up the Root Component
* Service Using Http Client
* Interceptors
* Importing Individual HTTP Providers into Services
* Service Imports
* The Observable object type
* Making a HTTP GET Call
* Using the Service in a Component
* Importing Observable Methods
* Enhancing the Service with .map() and .catch()
* GET Request

**Day 05**

11 - Introduction to Single Page Application

* What is a Single Page Application (SPA)
* SPA Workflow
* Single Page Application Advantages
* SPA Using Angular

12 - The Angular Component Router

* Routing and Navigation
* Component Router Terminology
* Setting up the Component Router
* Configuring Routes
* Bootstrapping Routing
* Programmatic Navigation
* Creating Routes with Route Parameters
* Navigating with Route Parameters
* Using Route Parameter Values
* Retrieving the Route Parameter
* Query Parameters
* Guards at Gate / Authentication

13 - Multi-modules App

* Lazy Loading of Module

17- App Preparation & Deployment

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