



# **Angular Live Class With Project Training**





Sahosoft is an online platform that enables you to learn and develop the skills that you need for your best tech career. We are dedicated to building and structuring your tech career for your dream companies worldwide based on your skills, eligibility, and preferences. Since inception, our students have been hired by top companies.



## WHO SHOULD ENROLL IN THIS PROGRAM?

Are you interested in the course but unsure if it is the right fit for you? This course is designed for who are looking to a career in IT or software development, including





### WHY ANGULAR?

Angular is one of the most popular JavaScript frameworks in the market. It occupies a fifth place among the top 10 most used web frameworks among developers worldwide, as of 2022, with 20.39% of web developers using this framework. Angular is used by many large companies like Xbox, BMW, and Forbes and has an active community. In addition, the development of this framework is sponsored by Google, which gives it a lot of credibility and support worldwide.



# The job opportunities after our Angular Course

There are many job opportunities for Angular developers. Developers with knowledge of Angular technology are in huge demand. You can find a number of jobs

Some common designations for Angular professionals in the industry are

Web developer

Angular developer

Front-end developer

Full Stack developer

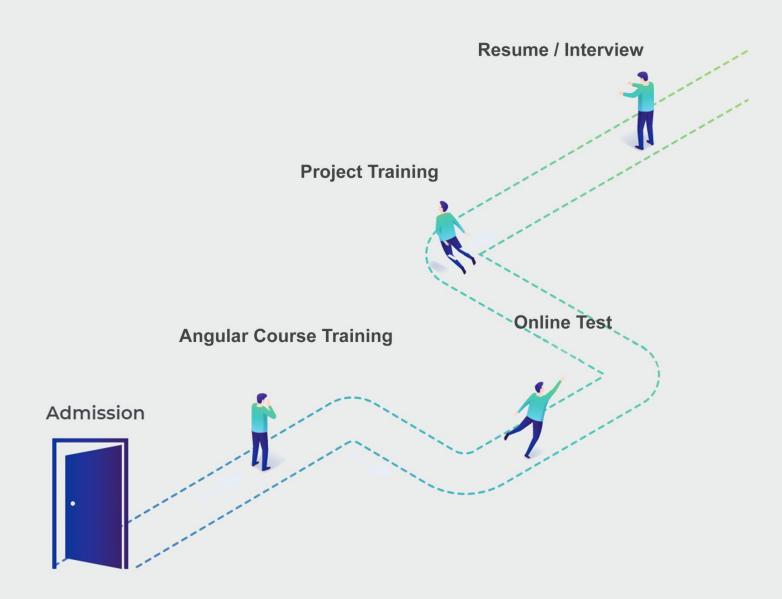
Software developer

Software Engineer





### **STUDENT JOURNEY**





### **DELIVERY MODEL**



### LIVE CLASSES

Learn from classes taking place in real time to reap all the benifits of a virtual classroom.



## ANGULAR PROJECT TRAINING

We provide corporate level project training, where we develop e-commerce application (like Flipkart, Amazon) with all functionality like cart system, payment gateway integration etc.

-recorded sessions of live class



## TIME TO TIME TEST SERIES

There will be online test, program test, and interview sessions.



## **MEET THE INSTRUCTORS**



AJEET KUMAR SINGH
Project Manager
Ex-Sr. Software Engineer
at HCL



CHANDAN KUMAR SINGH
Project Manager
Ex-Technical Lead
at HCL





Upon completion of this course, you will receive a completion certificate.



## TAKE THE FIRST STEP TOWARDS YOUR DREAM TECH CAREER

	Apply Now
	Have more questions? Reach out to us at class@sahosoft.com
C	whatsapp at +918588805737, +918376817046
	To know more about Sahosoft Online Clases :
	www.sahosofttech.com

#### **Course Content**

#### **Chapter 1 - Introducing Course**

- About Sahosoft
- Course Introduction
- Course Overview
- Where to find the Course Source Code

#### **Chapter 2 - Introducing Angular**

- What is Angular?
- Why Angular?
- What You Should Already Know
- Building Blocks of an Angular Application
- Basic Architecture of an Angular Application
- Angular js vs Angular 2 vs Angular 4 vs Angular 5 vs Angular 6 vs Angular 7 vs Angular 8 vs Angular 9 vs Angular 10 vs Angular 11 vs Angular 12
- Angular Semantic Versioning
- Angular Release Frequency and Schedule
- Angular Preview releases
- Support policy and schedule

#### **Chapter 3 - Development Setup of Angular**

- Angular Environment Setup
- IDE for writing your code (Editor)
- What is Node.js
- Why does Angular 2 and above need Node.js
- What is Node Package Manager (NPM)
- What is Angular CLI
- Installing VS Code
- Installing Node.js and NPM
- Installing CLI
- Creating a New Project (First App)
- Building the Application
- Running the Application
- Editing the First App

#### Chapter 4 – Project Structure

- Project Structure
- package json and package-lock json
- Package Version Numbering Syntax
- Updating Packages
- Uninstalling Packages
- Workflow of angular

#### **Chapter 5 - Components**

- What is a Component?
- An Example Component
- The Component Class
- Adding a Component to Its Module
- Creating a Component Using Angular CLI
- The Application Root Component
- Brief of @Component Decorators
  - template & templateUrl
  - Styles and StyleUrls
  - preserveWhitespaces
  - o viewProvider
  - changeDetection
  - o moduleId
  - Interpolation
  - o Encapsulation
  - entryComponents
  - o animations
  - o Selector
  - Input Property
  - Output Property
  - Providers Property
    - Class Provider useClass
    - Alias Provider useExisting
    - Value Provider useValue
    - Factory Provider useFactory
  - Exportas Property
  - o queries Property

- host Property
- jit Property
- Component Lifecycle Hooks
- Constructor Vs ngOnInit
- How to Dynamically load a Component in Angular

#### **Chapter 6 - Directives**

- What are Directives
  - Component Directives
  - Structural directives
  - Attribute Directive
- Custom Directives
- Custom Structural Directive
  - TemplateRef
  - ViewContainerRef
  - Component view
  - Host view
  - Embedded view
- Custom Attribute Directive
- ElementRef
- o **Renderer**
- Binding to Directive Properties using Custom property binding

#### **Chapter 7 - Structural Directives**

- Structural directives
- NgIf
  - NgIf with HTML Elements
  - o NgIf Null Check
  - NgIf with Enum
  - o ng-template
  - o NgIf with Else
  - Angular NgIf-Then-Else
  - o Expanding nglf into template
  - o nglf ng-template
  - o ngIf-else ng-template
  - o nglf-then-else ng-template

- NgIf with Component Elements
- NgIf with Async Pipe
- More than one ng-template for then and else block (NgIf-Then-Else)

#### NgFor

- o NgForOf with HTML Elements
- NgForOf with ng-template
- o index, even and odd with HTML Elements
- o index, even and odd with ng-template
- o first and last with HTML Elements
- o first and last with ng-template
- o NgForOf with Async Pipe with HTML Elements
- o NgForOf with Async Pipe with ng-template
- o trackBy with HTML Elements
- o trackBy with ng-template

#### NgSwitch

- o NgSwitch with html element
- o Expanding ngSwitchCase and ngSwitchDefault into template
- NgSwitch with ng-template
- NgSwitch with Enum
- NgSwitch with NgFor and class
- NgSwitch and NgFor in same element

#### **Chapter 8 - Attribute Directives**

- Attribute Directive
- ngStyle
- Alternative syntax of ngStyle
- ngClass
  - NgClass with String
  - NgClass with Array
  - NgClass with Object
- Alternative syntax of NgClass
- NgSwitch with NgFor and NgClass
- NgIf with NgFor and NgClass

#### **Chapter 9 - Data and Event Binding**

- Data binding **Binding Syntax**
- Classification of Data Binding
- One-Way Data Binding
- Different types of one-way data binding
- Difference between attribute and property
- Interpolation
- Attribute Binding
- **Style Binding**
- **Class Binding**
- **Property Binding**
- What is the difference between Property Binding and Interpolation?
- **Event Binding**
- How can we say that two-way data binding in Angular is actually a combination of both Property Binding and Event Binding?
- Two-Way Data Binding

#### **Chapter 10 - Pipes and Data Formatting**

- What are Pipes?
- Formatting Changes in Angular
- What is ngNonBindable?
- Built-in Pipe
- Lowercase pipe
- Uppercase pipe
- Titlecase pipe
- Slice pipe
- Json Pipe
- Decimal pipe
- Percent Pipe
- **Currency Pipe**
- Date Pipe
- Percent Pipe
- Parameterized pipes
- Multiple pipes (Chaining pipes)
- Async Pipe

- Custom Pipe
- Chaining of Custom Pipes
- Use Built-in Pipe in Custom Pipe
- Pure and Impure Pipes
- Pure Pipe Example
- Impure Pipe Example

#### **Chapter 11 - Decorators**

- What is decorators
- @NgModule
- @Component
- @Injectable
- @Directive
- @Pipe
- @Input
- @Output
  - EventEmitter
  - o emit()
- @HostBinding
- @HostListener
- @ContentChild
- @ContentChildren
- @ViewChild
- @ViewChildren

#### **Chapter 12 - Introduction to Typescript and ES6**

- What is JavaScript?
- What is Typescript?
- Transpilation
- Programming Languages for Use with Angular
- Typescript Syntax
- Why use Typescript
- Text Editors For Typescript
- Why Typescript is developed while having JavaScript?
- Typescript Version
- Features of Typescript

- Advantage of Typescript over JavaScript
- Disadvantage of Typescript over JavaScript
- Typescript vs. JavaScript
- Difference between JavaScript and Typescript
- Components of Typescript
- TypeScript Type Annotations
- TypeScript Variable
- var Declaration
- let Declaration
- Advantages of using let over var
- Const Declaration
- Typescript Data Type
- Static Data Type
  - Built-in or Primitive Type
    - Number Type
    - String Type
    - Boolean Type
    - Void Type
    - Any Type
    - Null Type
  - User-Defined DataType
    - Array
    - Tuple
    - Interface
    - Class
    - Enums
    - Functions
- Generics Data Type
- Decorators Data Type
- Difference between Null and Undefined
- Typescript Decision Making
  - Typescript if
  - Typescript if else Condition
  - o Typescript else if Condition

- Typescript switchTypescript Loops
  - Typescript for Loops
  - Typescript while Loop
  - Typescript do. While loop
- Typescript Data Modifiers
  - o public
  - private
  - protected
- Typescript Function
  - named functions
  - Anonymous functions
- Function Parameters
  - Optional Parameters
  - o Default Parameters
- Arrow Function
- Typescript Rest Parameters
- The Type System Classes & Objects
- Class Constructors
- Interfaces
- Working with Modules

#### **Chapter 13 - Services and Dependency Injection**

- What is a Service?
- Creating a Basic Service
- What is Dependency Injection?
- What Dependency Injection Looks Like
- Injecting Services
- Using a Service in a Component
- Using onInit to Initialize Component Data
- Injector
- Provider
- @Injectable Decorator
- @Inject() Decorator
- providedIn

- Tree Shakeable Providers
- Include the Service in component level
- Include the Service in module level
- Inject Service into other Service (Nested Services)
- Single VS Multiple Instance of Services

#### **Chapter 14 - Router**

- Routing and Navigation
- The Component Router
- Component Router Terminology
- Setting up the Component Router
- A Basic App with Routing
- Router Outlet
- Router Link
- Router Link Client Side
- Router Link Server-Side
- Creating a Routing Module
- ForRoot() and ForChild()
- Create Component/Service/pipe/directive/class/guard without spec.ts
- Difference-between-the-href-and-routerLink
- Redirecting Routes
- Wildcard Route
- Child Routes / Nested Routes
- Nested Routes (Nesting Children's under a child)
- Parameterize Route
  - The Snapshot Way
  - The Observable/Stream Way
  - o Passing Data During Navigation
  - Creating Routes with Route Parameters
  - Navigating with Route Parameters
  - Retrieving the Route Parameter
- Route Guards
  - Basic information about route guards
  - o Route Guards Parameters
  - ActivatedRouteSnapshot

- RouterStateSnapshot
- Route Guard Types
  - CanActivate guard
  - o CanActivateChild guard
  - CanDeactivate guard
  - Resolve guard
  - CanLoad guard
- Named and Multiple Router-Outlets (Auxiliary Routes or secondary routes)
- Difference between [routerLink] and routerLink
- RouterLinkActive
- Navigate
- NavigateByUrl
- Query Parameters

#### **Chapter 15 - Angular Modules**

- Introduction of modules
- The Root Module
- @ngmodule decorator
- Purpose of @ngModule
- Types of ngModule
- @ngModule Metadata Properties
- Feature Modules in Angular
- Eager Loading
- Lazy Loading Modules
- Preloading Modules
- Custom Preloading Modules strategy
- Custom Preloading Modules strategy with delay
- How to Create a Module
- Importing BrowserModule or CommonModule...etc.

#### **Chapter 16 - Session Management**

- What is HTML Web Storage?
- What is localStorage and sessionStorage?
- Set Entries
- Updating Entries

- Deleting Entries
- Clearing Everything
- Storing Json Objects
- Checking for Items
- Checking for Support
- Iterating Over Items

#### Chapter 17 - rxjs

- What is Observable
- What is Subscribe
- Angular In-Memory Web API
- Observable and subscribe with Web API
- Observable with Async pipe and ngFor
- Observable with Async pipe and nglf
- Observable map
- What is Promise
- Difference between observable and promise
- RxJS Subject and BehaviorSubject and replaysubject

#### **Chapter 18 - HTTP Client**

- The Angular HTTP Client
- Using The HTTP Client Overview
- Importing HttpClientModule
- Service Using HttpClient
- Using the Service in a Component
- HTTP VS HttpClient
- HttpModule VS HttpClientModule
- HttpClient get()
- HttpClient post()
- HttpClient put()
- HttpClient delete()
- HttpParams and HttpHeaders
- Use of headers in HttpClient
- Use of observe in HttpClient
- Use of params in HttpClient
- Use of reportProgress in HttpClient

- Use of responseType in HttpClient
- Use of withCredentials in HttpClient
- Requesting JSON using HttpClient.get using subscribe method
- Requesting JSON using HttpClient.get useing async pipe with Observable
- Requesting Text data using HttpClient.get using subscribe method
- Requesting Text data using HttpClient.get useing async pipe with Observable
- Using HttpParams
- Using HttpParams and HttpHeaders
- Using HttpClient.get with observe Property
- Error Handling
- RxJS retry() to Handle Error
- HttpClient.post Body
- HttpClient.post with Headers
- HttpClient.post with observe Option
- HttpClient.post and Response Type
- HttpClient.post with Error Handling
- HttpClient.put Body
- HttpClient.put with Headers
- HttpClient.put with observe Option
- HttpClient.put and Response Type
- HttpClient.put with Error Handling
- HttpClient.delete with Headers
- HttpClient.delete with observe Option
- HttpClient.delete and Response Type
- HttpClient.delete with Error Handling

#### Chapter 19 – Forms in Angular

- What is form?
- Forms in Angular
- Template Driven Forms
- Model-driven forms (Reactive forms)
- Which one is better Template Driven or Reactive?

#### **Chapter 20 - Template Driven Forms**

- Template Driven Forms
- Template Driven Forms features

- Importing Forms Module
- A Basic Angular Form
- What is NgForm?
- What is NgModel?
- Template Driven Forms with Validation
- What is ng-touched?
- What is ng-untouched?
- What is ng-pristine?
- What is ng-valid?
- What is ng-invalid?
- Binding Input Fields
- Accessing the Form Object
- Binding the Form Submit Event
- The Submit Function
- Basic HTML5 Validation "required" Attribute
- HTML5 vs. Angular Validation
- Angular Validators
- Angular Validation State
- Controlling when validation is applied
- Displaying Form Validation State
- Displaying Field Validation State
- Displaying Validation State Using Classes
- Disabling Submit when Form is Invalid
- Submitting the Form
- Checkboxes
- Select (Drop Down) Fields
- Rendering Options for Select (Drop Down)
- Date fields
- Radio Buttons

#### **Chapter 21 - Model Driven Forms**

- Model Driven Forms
- Setup for Model Driven Forms
- Form Component Setup
- Setup Main FormGroup

- formControlName
- FormControl Object
- Getting Form Values
- FormBuilder Form Initialization
- Validation
- Built-In Validators
- Controlling when validation is applied
- What is FormControl?
- What is FormGroup?
- What is FormBuilder?
- Reactive forms with Validation
- FormGroup Get Value and reset()
- FormGroup setValue() and patchValue()
- valueChanges() and statusChanges()
- What is FormArray?
- Use of FormArray in component
- What is Nested FormArray?
- Use of Nested FormArray in component
- What is Nested FormGroup?
- Use of Nested FormGroup
- Reactive Form Using Angular Material Design
- Custom Validator
- Using a Custom Validator

#### Chapter 22 - Angular Material, bootstrap, jQuery, Cookies

- What is Angular Material?
- Angular Material Features
- Angular Material install and use
- Angular Material Theming
- Angular Material All Modules
- What is bootstrap?
- Install and Use bootstrap in Angular
- How to Import and Use jQuery in Angular
- What is Cookies?

- Creating Cookies using ngx-cookie-service in Angular
- Cookie methods-Check
- Cookie methods-Get
- Cookie methods-GetAll
- Cookie methods-Set
- Cookie methods-Delete
- Cookie methods-DeleteAll

#### **Chapter 23 - Introduction to Single Page Applications**

- What is a Single Page Application (SPA)
- SPA Workflow
- Traditional Web Application Capabilities
- Single Page Application Advantages
- SPA and Traditional Web Sites
- SPA Challenges
- Implementing SPA's Using Angular
- Simple SPA Using Visibility Control
- SPA Using Angular Components
- Implement SPA Using an Angular Component Router

#### Chapter 24 - Creating and Consuming REST Web Services in Angular

- REST Web Services and Angular
- Understanding REST
- REST Example Create
- REST Example Retrieve
- REST Example Update
- REST Example Delete
- REST Example Client Generated ID
- REST Example JSON
- Knowledge of the REST API
- Common Angular Tasks for REST Communication
- Angular Service Class Using HTTP Client
- RequestOptions
- URL Path Parameters
- Query Parameters
- Common HTTP Request Headers

- Override Default Request Options
- Returning Response Data
- DELETE
- GET
- PUT
- POST
- Security of REST APIs
- Summary

#### **Chapter 25 - Debugging**

- Debugging Overview
- Basic Debugging Practices
- Development (Debug) Mode
- Selecting Elements to Inspect
- Inspecting Angular Components
- Using Breakpoints in Angular Code
- Breakpoint in TypeScript Code
- Common Exceptions
- Common Exceptions: 'No such file: package.json'
- Common Exceptions: 'Cant bind to ngModel'
- Common Exceptions: 'router-outlet not a known element'
- Common Exceptions: 'No provider for Router!'

#### **Chapter 26 - Angular Style Guide**

- What is the Angular Style Guide?
- Style Categories
- Single Responsibility
- Naming
- Coding Conventions
- App Structure and Angular Modules
- Components
- Directives and Services

#### **Chapter 27- Overview of JSON Web Tokens (JWT)**

- JSON Web Tokens
- How JWT Tokens Are Used
- Adding JWT to HTTP Header

- How The Server Makes Use of JWT Tokens?
- Angular HTTP Client Interceptors
- JWT Authentication

#### <u>Chapter 28 – Third Party Packages Implementation</u>

- CSS and SCSS and SASS
- feather-icons
- How to Install Font-Awesome in Angular?
- Implement Toastr Notification in Angular
- angular-count-to
- NgbTabsetLink
- sweetalert2
- install bootstrap in angular
- NG Bootstrap Angular Powered Bootstrap widgets
- ngx-ckeditor
- ngx-datatable
- ng2-smart-table In Angular
- ng-chartist
- ng2-charts
- ng2-google-charts
- ng5-slider
- ngx-image-zoom
- Stripe payment gateway in angular

#### **Chapter 29 – Live Project**

• e-commerce application