**Angular Developer Training**

**Description**

This course will let you learn latest versions of Angular, a massively popular framework for building applications for desktop and mobile. This will help you get up and running with Angular and start developing web and mobile applications. This will cover all Angular 12 Features, basics of ES6(latest version of JavaScript), RxJS and Typescript.

**Course Outline**

The Angular Developer Training will let you learn latest Angular version for building complex industry standard web applications for desktop and mobile.

The course will help you to Learn and understand below topics:

* Help you get up and running with Angular12 quickly.
* Anatomy and Architecture of Angular12
* Differences between Angular 1, and 12.
* Understand basics of TypeScript and ES6(latest version of JS)
* Understand basics of RxJS
* Components and Templates of Angular
* Various types of Data bindings, pipes and interfaces in Angular
* Angular12 in-built directives and usages.
* Build custom directives and pipes
* Services and Dependency Injection of Angular
* REST backend API integration with Frontend
* Routing in Angular12
* Angular Forms (Template driven Forms and Reactive Forms)
* Angular project set up and Angular CLI
* Understand Migration from Angular 1 to latest Angular12

**Who should go for AngularJS and Angular12 Developer Training**

* Anyone who wants to learn the most used and popular JavaScript framework.
* This course will provide you expertise on front end development and technologies.
* Professionals or Students who wants to start developing web applications.

**What are the Prerequisites for the course:**

* Prior web development knowledge is not required.
* Good to have basics of HTML, CSS and JavaScript, but not must.
* Knowledge of AngularJS and Angular is not required.

**How will I do practical in Online Training?**

For Practical Implementation, we will ensure required Environment is set up is made on your computer on your local machine. Only thing is you need have a computer with required configuration.

**Making Job-Ready and Case Study:**

This course is not only make you understand the concepts, but also will make you **Job Ready**. Apart from the Regular Exercises, there will be a Major Case Study which is similar to a Realtime task that you will start working at end of program and Implement Completely under the supervision of trainers. This will make you full pledged Angular 5/6 Developer. The one of the case Study that you are going to Implement is as below.

**Case Study**

*AngularJS1.x Projects:*

1. **AngularJS Form Validation:**

We will build a simple form with AngularJS1.x and let students understand AngularJS form validation logic. We will connect with some mocked backend APIs for the library books data.

1. **Web Store App:**

We will build an eBay like Web Store App with AngularJS1.x and we can select, delete and checkout like real shopping web app. We will connect with some mocked backend APIs for the library books data.

1. **Facebook like social App:**

We will build a Facebook like social App with AngularJS1.x and we can find some friends, add and delete and chat with friends like real Facebook. We will connect with some mocked backend APIs for the library books data.

1. **Job Directory App:**

We will build Job Directory App with AngularJS1.x and we can search, add and post jobs on this web app. We will connect with some mocked backend APIs for the library books data.

1. **Instagram like gallery App:**

We will build an Instagram like picture sharing web app with AngularJS1.x and we can share, edit and post picture like real Instagram. We will connect with some mocked backend APIs for the library books data.

1. **Car Find App:**

We will build a KBB like car find web app with AngularJS1.x and we can search, find and check details like real KBB website. We will connect with some mocked backend APIs for the library books data.

*Angular12 Projects:*

1. **Shopping List Project:**

We will build a shopping list web app with Angular12 and Bootstrap which will have major library related functionalities starting from Login, manage recipe and recipe details etc. We will connect with some mocked backend APIs for the library books data.

**Course Outline:**

**(AngularJS1.x Part)**

**(Angular12 Part)**

**Lecture 1: Angular Fundamentals**

*Areas Covered*

* + Components, Data Binding, Directives
  + Custom Components
  + Property Binding, String Interpolation, Event Binding
  + Two-way Databinding
  + Understanding Directives
  + Understanding Services

**Duration: 1 Session, 2.0 Hours**

**Lecture 2: Displaying Data and Handling Events**

*Areas Covered*

* + Property Binding
  + Attribute Binding
  + Class Binding
  + Style Binding
  + Event Binding
  + Two-way Binding
  + Pipes and Custom Pipes

**Duration: 1 Session, 2.0 Hours**

**Lecture 3: Angular CLI**

*Areas Covered*

* + Angular CLI Setup and Verification
  + Generate a New Angular App
  + Generate Code from Blueprints
  + Generate Routing Features
  + Building and Serving
  + Running Unit and End to End Tests
  + Tooling Features

**Duration: 1 Session, 2.0 Hours**

**Lecture 4: TypeScript Fundamentals**

*Areas Covered*

* + TypeScript Getting Started
  + Using Variables, Types and Enums
  + Creating and Using Functions
  + Creating and Using Interfaces
  + Creating and Using Classes
  + Creating and Using Generics

**Duration: 1 Session, 2.0 Hours**

**Lecture 5: Building Re-usable Components**

*Areas Covered*

* + Component API
  + Input and Output Properties
  + Passing Event Data
  + Templates and Styles
  + View Encapsulation
  + ngContent and ngContainer

**Duration: 1 Session, 2.0 Hours**

**Lecture 6: Directives**

*Areas Covered*

* + Directive Deep Dive
  + Renderer to build Attribute Directive
  + Binding to Directive Properties
  + Building a Structural Directive

**Duration: 1 Session, 2.0 Hours**

**Lecture 7: Template-driven Forms**

*Areas Covered*

* + Form Deep Dive
  + Template-Dirven VS Reactive Approach
  + Understand Form State
  + Form Validation
  + Control Classes and Directives

**Duration: 1 Session, 2.0 Hours**

**Lecture 8: Reactive Forms**

*Areas Covered*

* + Intro to Reactive Approach
  + Building a Bootstrap Form
  + Adding Validation
  + Implement Custom Validation
  + FormArray and FormBuilder

**Duration: 1 Session, 2.0 Hours**

**Lecture 9: RxJS Fundamental**

*Areas Covered*

* + Intro to RxJS
  + RxJS Terms and Syntax
  + RxJS Operators
  + Mapping Returned Data
  + Combine Streams
  + React to Actions
  + Cache Observables
  + Combine all Streams

**Duration: 1 Session, 2.0 Hours**

**Lecture 10: Consuming HTTP Services**

*Areas Covered*

* + Perform CRUD operations (Create, Read, Update and Delete)
  + Extract a reusable data service
  + Handle different kinds of errors
  + Build application with proper separation of concerns

**Duration: 1 Session, 2.0 Hours**

**Lecture 11: Routing and Navigation**

*Areas Covered*

* + Routing Deep Dive
  + Navigating with Router Links
  + Understand Navigation Paths
  + Using Relative Paths
  + Pass parameters to Routes
  + Fetching Route parameters Reactively
  + Passing and Retrieving Query parameters and Fragments
  + Nested Routes
  + Intro to Guards

**Duration: 1 Session, 2.0 Hours**

**Lecture 12: Authentication and Authorization**

*Areas Covered*

* + JSON Web Tokens (JWT)
  + Stateless authentication
  + Protect routes
  + Redirect users to Login or Access Deny page
  + Show/Hide elements
  + Get the current user
  + Consumer protected API endpoints

**Duration: 1 Session, 2.0 Hours**

**Lecture 12: Deployment**

*Areas Covered*

* + Preparing for Deployment
  + JIT vs AOT Compliation
  + Building App with Angular CLI
  + Adding Custom Environments
  + Deploying to GitHub Pages
  + Deploying to Firebase
  + Deploying to Heroku

**Duration: 1 Session, 2.0 Hours**

**Lecture 13: Building Real-time Server-less Apps with Firebase**

*Areas Covered*

* + Firebase Introduction
  + Working with Firebase Databases
  + Reading Lists
  + Unsubscribing from Subscriptions
  + Async Pipe
  + Adding, Updating and Removing an Object

**Duration: 1 Session, 2.0 Hours**

**Lecture 14: Project: Getting Started and Authentication**

*Areas Covered*

* + Create a New Project
  + Extract Navbar Component
  + Define the Routes
  + Add a Drop-down Menu
  + Implement Google Login and Logout
  + Use Async Pipe
  + Extract a Service
  + Protect the Routes
  + Store Users in Firebase
  + Define Admins
  + Protect the Admin Routes

**Duration: 1 Session, 2.0 Hours**

**Lecture 15: Project: Product Management Module**

*Areas Covered*

* + Build Bootstrap Form
  + Populate Categories Drop-down List
  + Save Product in Firebase
  + Implement Validation
  + Add Bootstrap Card
  + Display List of Products
  + Edit, Update and Delete a Product
  + Search for Products
  + Add, Configure, Feed and Filter a Data Table Component

**Duration: 1 Session, 2.0 Hours**

**Lecture 16: Project: Product Catalog Module**

*Areas Covered*

* + Display All Products
  + Display Categories
  + Filter Products by Category
  + Deal with Multiple Async Operations
  + Improve Product Card
  + Make Categories Sticky

**Duration: 1 Session, 2.0 Hours**

**Lecture 17: Project: Shopping Cart Module**

*Areas Covered*

* + Create Shopping Cart
  + Add Products to Shopping Cart
  + Display Quantity
  + Display Number of Shopping Cart Items in Navbar
  + Build Shopping Cart Page
  + Display Total Price
  + Flatten Shopping Cart Item Objects
  + Clear Shopping Cart
  + Add Thumbnails

**Duration: 1 Session, 2.0 Hours**

**Lecture 18: Project: Check Out Module**

*Areas Covered*

* + Building Shipping Forms
  + Saving Orders in Firebase
  + Associate Orders with Current User
  + Clear Shopping Cart
  + Transactions
  + Add Order Summary Widget
  + Display Orders

**Duration: 1 Session, 2.0 Hours**

**(Deep Dive Angular12)**

**Lecture 1: Angular HTTP Communication**

*Areas Covered*

* + Consuming REST Services
  + Advanced HTTP Requests and Error Handling
  + Creating Interceptors
  + Caching HTTP Requests with Interceptors
  + Testing HTTP Requests

**Duration: 1 Session, 2.0 Hours**

**Lecture 2: Angular Routing**

*Areas Covered*

* + Routing Basics and Routing to Features
  + Route Parameters
  + Prefetch Data Using Route Resolvers
  + Child Routes
  + Group and Component-less Routes
  + Styling, Animating and Watching Routes
  + Secondary Routes
  + Route Guards
  + Lazy Loading

**Duration: 1 Session, 2.0 Hours**

**Lecture 3: Angular Component Communication**

*Areas Covered*

* + Communicate with a Template
  + ViewChild and ViewChildren
  + Communicate with Child and Parent Component
  + Communicate through a Service
  + Communicate through a State Management Service
  + Communicate through Service Notifications
  + Communicate using Router

**Duration: 1 Session, 2.0 Hours**

**Lecture 4: Styling Applications with Angular Material**

*Areas Covered*

* + Material Design
  + Layout Component
  + Displaying Real Data
  + Using Data Tables
  + Dialogs and Popups

**Duration: 1 Session, 2.0 Hours**

**Lecture 5: Angular NgRx: Getting Started**

*Areas Covered*

* + First Look at NgRx
  + Strongly Typing the State
  + Strongly Typing Actions with Action Creators
  + Working with Effects
  + Performing Update Operations
  + Architectural Considerations

**Duration: 1 Session, 2.0 Hours**

Course GitHub link: <https://github.com/specter01wj/Jago_Link_Training>