



## Angular 2 training Course Syllabus

### Prerequisites for Angular 2 Course

- HTML, CSS and JavaScript
- Angular JS

### Getting Started

- Working with JavaScript Modules and SystemJs
- Introduction to TypeScript
- A Conceptual Overview of Angular 2
- Here's What We'll Be Building
- Installing Git and Node
- Creating Your First Component
- Using the Angular CLI

### Creating and Communicating Between Components

- Creating Your First Data-bound Component
- Using External Templates
- Communicating with Child Components Using @Input
- Communicating with Parent Components Using @Output
- Using Template Variables to Interact with Child Components
- Styling Components
- Exploring Angular's CSS Encapsulation
- Adding a Site Header

### Exploring the New Template Syntax

- Interpolation, Property Bindings, and Expressions
- Event Bindings and Statements
- Repeating Data with ngFor
- Handling Null Values with the Safe-Navigation Operator
- Hiding and Showing Content with ngIf
- Hiding Content with the [Hidden] Binding

- Hiding and Showing Content with ngSwitch
- Styling Components with ngClass
- Styling Components with ngStyle

## **Creating Reusable Services**

- Introduction
- Why We Need Services and Dependency Injection
- Creating Your First Service
- Wrapping Third Party Services

## **Routing and Navigating Pages**

- Adding Multiple Pages to Your App
- Adding Your First Route
- Accessing Route Parameters
- Linking to Routes
- Navigating from Code
- Guarding Against Route Activation
- Guarding Against Route De-activation
- Pre-loading Data for Components
- Styling Active Links

## **Collecting Data with Forms and Validation**

- Introduction
- Using Models for Type Safety
- Creating Your First Template-based Form
- Using the Data from Your Template-based Form
- Validating Template-based Form
- Validating Reactive Forms

## **Communicating Between Components**

- Passing Data into a Child Component
- Passing Data out of a Child Component

## **Reusing Components with Content Projection**

- Content Projection
- Multiple Slot Content Projection

## **Displaying Data with Pipes**

- Using Built-in Pipes
- Creating a Custom Pipe
- Sorting and Filtering Overview
- Creating a Filtering Display
- Filtering Data

## **Understanding Dependency Injection**

- Using Third Party Global Services – The Problem
- Angular Dependency Injection Lookup
- Using OpaqueToken for Dependency Injection
- Using the @Inject Decorator
- The useClass Provider

## **Creating Directives and Advanced Components**

- Implementing the Session Search
- Adding jQuery
- Creating a Modal Component
- Fixing Template Parse Errors
- Creating Directives – The Trigger Directive
- Binding an ID
- Routing to the Same Component
- Using the @ViewChild Decorator
- Creating Settings on Components

## Communicating with the Server Using HTTP, Observables, and Rx

- Moving Data Storage to the Server
- Listening to Resolved Data Changes
- Using Querystring Parameters
- Using POST and PUT
- Using DELETE
- Integrating Authentication with the Server
- Persisting Authentication Status Across Page Refreshes
- Saving User Data to the Server
- Implementing Logout

## Unit Testing Your Code

- Installing Karma
- Unit Testing Services
- Testing Mock Calls
- Testing Components with Isolated Tests

## Going to Production

- Learning the Concepts
- Linting with TSLint
- Tuning Your rxJS Requests
- Enabling Production Mode
- Basic Copy Deployment
- Ahead of Time Compiler Overview
- Preparing for the AOT Compiler
- Making Coding Fixes for the AOT Compiler
- Running the AOT Compiler
- Tree Shaking and Bundling with Rollup