

## Course duration

- 2 days

## Course Benefits

- Learn to create Advanced HTTP clients.
- Learn to consume WebSocket data.
- Learn to use the featured of Advanced Routing.
- Learn to test and debug Angular applications.

### Available Delivery Methods

#### Public Class

Public expert-led online training from the convenience of your home, office or anywhere with an internet connection. Guaranteed to run .

#### Private Class

Private classes are delivered for groups at your offices or a location of your choice.

## Course Outline

1. Advanced HTTP Client
  1. Request Options
  2. Returning an HttpResponse Object
  3. Setting Request Headers
  4. Creating New Observables
  5. Creating a Simple Observable
  6. The Observable Constructor Method
  7. Observable Operators
  8. The map and filter Operators
  9. The flatMap() Operator
  10. The tap() Operator
  11. The zip() Combinator
  12. Caching HTTP Response
  13. Making Sequential HTTP Calls
  14. Making Parallel Calls
  15. Customizing Error Object with catchError()
  16. Error in Pipeline

- 17. Error Recovery
- 2. Angular Modules
  - 1. Why Angular Modules?
  - 2. Anatomy of a Module Class
  - 3. @NgModule Properties
  - 4. Feature Modules
  - 5. Example Module Structure
  - 6. Create a Domain Module
  - 7. Create a Routed/Router Module Pair
  - 8. Create a Service Module
  - 9. Creating Common Modules
  - 10. Using One Module From Another
- 3. Advanced Routing
  - 1. Routing Enabled Feature Module
  - 2. Using the Feature Module
  - 3. Lazy Loading the Feature Module
  - 4. Creating Links for the Feature Module Components
  - 5. More About Lazy Loading
  - 6. Preloading Modules
  - 7. routerLinkActive binding
  - 8. Default Route
  - 9. Wildcard Route Path
  - 10. redirectTo
  - 11. Child Routes
  - 12. Defining Child Routes
  - 13. for Child Routes
  - 14. Links for Child Routes
  - 15. Navigation Guards
  - 16. Creating Guard Implementations
  - 17. Using Guards in a Route
- 4. Unit Testing Angular Applications
  - 1. Unit Testing Angular Artifacts
  - 2. Testing Tools
  - 3. Typical Testing Steps
  - 4. Test Results
  - 5. Jasmine Test Suites
  - 6. Jasmine Specs (Unit Tests)
  - 7. Expectations (Assertions)
  - 8. Matchers
  - 9. Examples of Using Matchers
  - 10. Using the not Property
  - 11. Setup and Teardown in Unit Test Suites
  - 12. Example of beforeEach and afterEach Functions
  - 13. Angular Test Module
  - 14. Example Angular Test Module
  - 15. Testing a Service
  - 16. Injecting a Service Instance

17. Test a Synchronous Method
  18. Test an Asynchronous Method
  19. Using Mock HTTP Client
  20. Supplying Canned Response
  21. Testing a Component
  22. Component Test Module
  23. Creating a Component Instance
  24. The ComponentFixture Class
  25. Basic Component Tests
  26. The DebugElement Class
  27. Simulating User Interaction
5. Debugging
    1. Overview of Angular Debugging
    2. Viewing TypeScript Code in Debugger
    3. Using the debugger Keyword
    4. Debug Logging
    5. What is Angular DevTools?
    6. Using Angular DevTools
    7. Angular DevTools - Component Structure
    8. Angular DevTools - Change Detection Execution
    9. Catching Syntax Errors

## Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

### Class Prerequisites

Experience in the following *is required* for this Angular class:

- Must have some prior understanding of Angular fundamentals in addition to web development using HTML, CSS, and JavaScript.

### Prerequisite Courses

Courses that can help you meet these prerequisites:

- [Introduction to Angular Programming Training](#)

### Follow-on Courses

- [Advanced Angular Programming](#)