

Course duration

- Custom Length

Course Benefits

- Learn how to use both synchronous and asynchronous tests with Angular components, pipes and services.
- Learn to write tests that include Angular routing and incorporate spies and mocks.

Course Outline

1. Unit testing in Jasmine
 1. Software Testing
 2. Types of tests
 3. Test Pyramid
 4. Unit Tests
 5. Jasmine, Karma and Angular
 6. Jasmine
 7. Karma
 8. Basic Terminology
 9. Test Suite
 10. Spec
 11. Assertion
 12. Matchers
 13. Setup and Teardown
 14. A Test Suite
 15. Auto-Generated Angular Test Suites
 16. Run a Test
 17. Summary
2. Jasmine Configuration
 1. Setup and Teardown
 2. Setup/Teardown Example
 3. Order of Execution
 4. Nested Test Suites
 5. Nested Test Suites Order of Execution
 6. Nested Setup/Teardown Order of Execution
 7. Custom Matchers
 8. Interface
 9. Matcher Factory
 10. Use the Matcher
 11. Run the Tests

12. Disabling Suites and Specs
13. The this Keyword
14. Summary
3. Testing - Components, Pipes and Services
 1. Testing Components
 2. Testing the Class Only
 3. Example Component
 4. Test Component Class
 5. Test Component Class Example
 6. Test Component
 7. Test Component Example
 8. TypeScript async/await
 9. Change Detection
10. DOM Element(s)
11. Testing Pipes
12. Pipe Class Example
13. Pipe Spec Example
14. Testing Services
15. Service Class Example
16. Service Spec Example
17. Expecting an Error
18. Summary
4. Testing – DOM, Routing and Code Coverage
 1. Testing in Angular
 2. Components
 3. Testing the DOM
 4. DOM Testing vs End-to-End Testing
 5. TestBed
 6. TestBed Use Cases
 7. Using TestBed
 8. ComponentFixture
 9. Get the Component and DOM Element
 10. Selecting DOM Elements with NativeElement
 11. Selecting DOM Elements with DebugElement
 12. Selection Examples
 13. Accessing Text
 14. Button Clicks
 15. Routing
 16. Routing Test Setup
 17. Routing Spec
 18. Code Coverage
 19. Detailed Coverage Summary
 20. Details
 21. Summary
5. Integration Testing
 1. Integration Testing
 2. Spies

3. Service Class Example
4. Spec
5. Using a Spy to Return a Fixed Value
6. Using a Spy to Return a Dynamic Value
7. Injection
8. Injection Example
9. Injection in a Test Suite
10. Mocks
11. Summary

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:

- Experience with Angular

Prerequisite Courses

Courses that can help you meet these prerequisites:

- [Introduction to Angular Programming Training](#)