

**Angular Unit Testing with Jasmine**

**Course Number:** ANG-184  
**Duration:** 2 days

**Overview**

Accelebrate's live online or onsite Angular Unit Testing with Jasmine training course teaches attendees how to master the behavior-driven Jasmine test framework.

**Prerequisites**

Attendees should have prior familiarity with JavaScript, TypeScript, and modern Angular.

**Materials**

All attendees receive comprehensive courseware covering the topics in the class.

**Software Needed on Each Student PC**

* Google Chrome
* Other modern browsers as desired
* IDE/development environment of your choice
* Other free software (such as Node) and lab files that Accelebrate would specify

**Objectives**

* Learn synchronous and asynchronous testing with Angular components, pipes, and services
* Write component and DOM tests
* Configure Jasmine to behave the way you want
* Perform integration testing, including use of spies and mocks

**Outline**

* Unit testing in Jasmine
  + Software Testing
  + Types of tests
  + Test Pyramid
  + Unit Tests
  + Jasmine, Karma and Angular
  + Jasmine
  + Karma
  + Basic Terminology
  + Test Suite
  + Spec
  + Assertion
  + Matchers
  + Setup and Teardown
  + A Test Suite
  + Auto-Generated Angular Test Suites
  + Run a Test
* Jasmine Configuration
  + Setup and Teardown
  + Setup/Teardown Example
  + Order of Execution
  + Nested Test Suites
  + Nested Test Suites Order of Execution
  + Nested Setup/Teardown Order of Execution
  + Custom Matchers
  + Interface
  + Matcher Factory
  + Use the Matcher
  + Run the Tests
  + Disabling Suites and Specs
  + The this Keyword
* Testing - Components, Pipes and Services
  + Testing Components
  + Testing the Class Only
  + Example Component
  + Test Component Class
  + Test Component Class Example
  + Test Component
  + Test Component Example
  + TypeScript async/await
  + Change Detection
  + DOM Element(s)
  + Testing Pipes
  + Pipe Class Example
  + Pipe Spec Example
  + Testing Services
  + Service Class Example
  + Service Spec Example
  + Expecting an Error
* DOM, Routing and Code Coverage
  + Testing in Angular
  + Components
  + Testing the DOM
  + DOM Testing vs End-to-End Testing
  + TestBed
  + TestBed Use Cases
  + Using TestBed
  + ComponentFixture
  + Get the Component and DOM Element
  + Selecting DOM Elements with NativeElement
  + Selecting DOM Elements with DebugElement
  + Selection Examples
  + Accessing Text
  + Button Clicks
  + Routing
  + Routing Test Setup
  + Routing Spec
  + Code Coverage
  + Detailed Coverage Summary
  + Details
* Integration Testing
  + Integration Testing
  + Spies
  + Service Class Example
  + Spec
  + Using a Spy to Return a Fixed Value
  + Using a Spy to Return a Dynamic Value
  + Injection
  + Injection Example
  + Injection in a Test Suite
  + Mocks