# Testing in Angular with Jasmine and Karma

## Behavior Driven Development

* Development that occurs based off collaborations between non-technical and technical development team.
* Conversations between business analyst and client/product owner will determine how the coding will occurs (user stories)
  + Ex: I want the web browser to display my recent purchase.
* Conversation > Test cases > Development
* Overall, BDD emphasizes that our test cases will be easy to be read by normal human language for non-technical

## Jasmine

* It is a JavaScript unit testing framework that supports BDD.
* Jasmines attempts to do BDD.
* Tests will run in the browser and results are displayed in the browser.
* Features to know about
  + Test Suite (a collection of test cases) we use the **describe(“string value that will describe this test suit”, arrow function)** method keyword.
  + To create a Test Spec we us **it()** function.
    - The it functions ill contain one ore more expectation (kinda like assertions in Junit)
    - It function will take two parameters (“string value to describe what it is testing”, arrow function);
  + To create Expectations we use **expect()** function
    - It is used with conjunction with marcher that does a Boolean comparison with the expected value.
* Spying is one way to mock dependencies inside of Jasmine

## Setup and Teardown

* beforeAll
  + Called once before any of the test specs or the beginning of the test suite.
* afterAll
  + Called once after all the test specs ran.
* beforeEach
  + Called once before each test spec.
* afterEach
  + Called once after each test spec.

## Karma

* Manually run Jasmine tests by refreshing the browser in different browsers every time they add a new test spec.
* It is a tool developed to spawn browsers and run Jasmine test all from the command line.
* It will also display its result on the browser.