



ng-India

# Angular Unit Testing

# Agenda

- What is Unit Testing?
- Angular CLI Setup
- Angular Testing Tools
- Jasmine Test Spec
- Setup and Teardown
- Testing A Simple Component
- Debugging and Code Coverage
- Testing A Component with Template and Dependencies
- Testing Http Service

# What is Unit Testing?

- A unit testing is a method, where each unit or component of a software is tested to determine whether it is fit for use or not
- A single unit is any block of code (i.e. function or class) that has one and only one responsibility
- A function might have multiple unit tests according to the uses and output of the function

# Angular CLI setup

Node 6.9+

[www.nodejs.org](http://www.nodejs.org)

Angular CLI

```
npm install -g @angular/cli
```

Create New Project

```
ng new appName
```

Run Test

```
ng test
```

# Angular Testing Tools

Test Runner

Karma

Test Framework

Jasmine

Test Utilities

Angular (TestBed,  
ComponentFixture)

# Jasmine Test Spec

## describe(str, fn)

- A Test Suite
- Contains Test Specs

## it(str, fn)

- A Test Spec
- Contains 1 or more test expectations

## expect(actual)

- An expected piece of behavior

## matcher(expected)

- Does a boolean comparison
- toEqual, toContain, toBeNull

# Setup and Teardown(cleaning up)

## beforeAll()

- Called once, before all the specs in a test suite run

## beforeEach()

- Called before each test spec run

## afterAll()

- Called once, after all the specs in a test suite finished

## afterEach()

- Called after each test spec run

# Testing A Simple Component



# Debugging

# Code Coverage

# Testing A Component with Template

# Testing A Component with Dependencies

# Testing Http Service

# Skill Challenge

Thanks!