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Unit Testing Using Jasmine

May 2015

Agenda

- **How AngularJS makes Unit Testing Easy?**

- Intro of Jasmine with Angular

- Important Function In Jasmine Library

- Basic Example of Testing Controller using Jasmine

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How AngularJS makes Unit Testing Easy?

- Unit testing, as the name implies, is about testing individual units of code
- Goals of unit testing:
  - Take the smallest piece of testable code
  - Isolate it from remainder of the code
  - Determine whether it behaves exactly as you expect
- What makes unit testing easy in Angular
  - Dependency injection
  - Loose coupling with the DOM
  - Services that would otherwise be hard to test e.g. $timeout, $location, $window

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Intro of Jasmine with Angular

- Jasmine is a behavior-driven development framework for testing JavaScript code

- Its popular choice for unit testing AngularJS applications

- Jasmine provides functions to help with structuring your tests and also making assertions.

- It does not depend on any other framework

- It does not require DOM

Agenda

- How AngularJS makes Unit Testing Easy?

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- **Important Function In Jasmine Library**

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Important Functions In Jasmine Library

- describe - In Jasmine we use the describe function to group our tests together:

  describe("sorting the list of users", function()

  { // individual tests go here });

- it - each individual test is defined within a call to the it function:

  describe('sorting the list of users', function() {

  it('sorts in descending order by default', function() {

  // your test assertion goes here }

  );

  });

- Grouping related tests within describe blocks and describing each individual test within an it call keeps your tests self documenting.

Important Functions In Jasmine Library

- Finally, Jasmine provides matchers which let you make assertions:

```
describe('sorting the list of users', function()
    {
        it('sorts in descending order by default', function()
            {
                var users = ['jack', 'igor', 'jeff'];
                var sorted = sortUsers(users);
                expect(sorted).toEqual(['jeff', 'jack', 'igor']);
            });
    });
```

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- **Basic Example of Testing Controller using Jasmine**

Basic Example of Testing Controller using Jasmine

- Below link points to an example that opens in plunkr.

- It depicts simple example of unit testing controller using jasmine library

  - [Example](#)

Unit Testing - Finding your way (1/2)

Technical Questions:

1. What is Karma?

2. What other unit testing frameworks can be used to unit test AngularJS?

As you start to work with AngularJS – unit testing, you will frequently encounter technical issues which are not covered by this training.

How will you resolve these technical issues on AngularJS – Unit Testing.

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Unit Testing - Finding your way (2/2)

Resources	Remarks
https://docs.angularjs.org/guide/unit-testing	AngularJS official doc on unit testing
http://jasmine.github.io/1.3/introduction.html	Doc on Jasmine library
http://karma-runner.github.io/0.12/index.html	Good video on karma test runner
CurioCT - https://interct/SitePages/CurioCT.aspx	
CTCourses – Unit Testing	In addition to updated course material, CTCourse contains reference sites (Library) and list of project teams with expertise on Unit Testing

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CurioCT - CitiusTech's Technology Q & A Forum

- In case of any questions please log on to
  https://interct/SitePages/CurioCT.aspx

Thank You