Testing

Testing : Testing is use to find the defects or bugs or errors in application.

Layer architecture or model architecture

Node JS (Express JS using MVC Style).

2 types

Black box testing

Input Process Output

White box testing

Input ------------------------🡪Process -------------------🡪Output

Unit testing : it is a type of white box testing. Unit the smallest price of code to do some specific task written in function or method or procedure or module.

**Jasmine :** Jasmine is one of the type of open source library which provide set of API which help to do the testing for JavaScript application (JavaScript program can be client or server side).

Testing Client side JavaScript Programs using Jasmine

Jasmine Provide set of pre-defined function

1. Test suite : Test suite is use or combine more than one test case.

To make the test suite Jasmine framework provide pre-defined function ie

describe(“Message”,callbackfunction)

callbackfunction we can use in expression style or arrow style

1. Test case : Test case is a type of function which help do the testing for the specific function.

To make the test case Jasmine provide pre-defined function ie it()

It(“message”,callbackfunction)

1. Expect : Jasmine provide lot of pre-defined function in the form of expect which help to check actual and expectation output.

Describe : it can contains more than one it

Every it can contains more than one expect which help to check actual and expectation output.

Jasmine provide pre-defined function to make suite and spec and expectation.

To run application we were depends upon the Karma. Karma is known as test runner to run the application.

Karma is a tool which help to provide the result ie test may be pass or fail.

But new version Jasmine provide own runner to run the application.

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Jasmine testing hook functions

describe(“Message”,()=> {

beforeAll(()=> {

call only once before all it function

})

beforeEach(()=> {

any initialization for every it function it get call

})

it(“1st Testing”,()=> {})

It(“2nd Testing”,()=> {})

afterEach(()=> {

closing any resource after each testing function

})

afterAll(()=> {

it call only once after all it function.

})

})

Testing for the Angular Application

Angular Framework internally provide Jasmine and Karma for testing Angular component, angular template and angular service classes.

In Angular

Jasmine : It is a open source framework provide set of function ie describe, it and more than one expect functions.

Karma : Karma is test runner which is use display the result in browser.

Angular Utilities : Angular framework provided set of API which help to test the Angular component, template and service.

All API for Angular part of

@angular/core/test these modules.

TestBed Angular API

to test the application we have to use the command as

ng test