18-09-2021 : Day 1

8 classes

Per day 3 hour classes

Testing and deployment

Front end testing --🡪 Jasmine and Karma

Html/Plain JavaScript-🡪 Jasmine

Angular --🡪 Jasmine and Karma

Backed end testing -🡪 Jasmine with supertest

Mocha with Chai (chai-http)

React JS with JEST

Introduction to grunt

Docker

Introduction to CI and CD with Jenkin

Introduction :

AWS : Cloud computing

S3

EC2

Etc

Testing : Testing is use to find the defect or error or bugs in the application.

Read a,b 10, 20

//Compute sum = a+b

Write sum 30

Testing mainly divided into 2 types

Black box testing :

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

White box testing :

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

Unit Testing : Unit testing is a kind of software testing method in which each individual and independent part of the source code will be test. Unit means is a small module or function or method or class etc.

Unit testing is a type of white box testing.

Jasmine : Jasmine is open source framework which help to do the testing for JavaScript program it may be client side or server side JavaScript.

Jasmine is DOM less JavaScript testing Framework.

Document Object Model.

Node JS Testing using Jasmine

In Testing

Test Suite : Test suite is s collection of more than test spec as well another Test suite.

Syntax

describe(“Message”,function(){

})

describe(“Message”,()=>{

})

Test Spec : Test spec is mainly use to test the specific function functionality. It can contains more than one expectation.

Syntax

it(“Message”,function(){

})

it(“messasge”,()=>{

})

Expectation : it provide set of pre-defined function which help to do the testing and check actual land expect output.

Create folder Node JS testing with jasmine

Create the package.json file using npm init

npm install jasmine –D ( only development mode)

npm install jamine-node -D

we have to create spec directory or folder.

So jasmine provide command to create the folder ie

jasmine init : This command is use to create spect and jasmine.json configuration file for testing.

To enable the jasmine command we have install the jasmine globally

npm install jasmine –g

create src folder

19-09-2021 : Day 2

Testing hook or life cycle functions.

Using Jasmine testing for Express JS Application

SuperTest is a third party library which is internally use Http Assertion library that allow you to test Node JS Express Module.

Create folder Express JS with Jasmine and SuperTest

Then create package.json file using npm init

npm install express

npm install jasmine –D

npm install jasmine-node –D

npm install supertest –D

Using jasmine init create the spec folder.

Jasmine init

Client JavaScript testing using jasmine with downloaded standalone setup

Angular Framework provide the set for testing

Angular use Jasmine framework to do testing for Angular Application.

Jasmine provide test suit, test spect and expect.

Angular use Karma

Karma is test runner for the JavaScript as well as typescript programs.

Karma : Karma provides a suitable testing environment to any web application.

Karma start a small web server to test JavaScript as well as typescript file to test on browser.

In Angular we are testing component, service, routing file etc.

Angular provided testing utilities files to test angular specific component as well as service.

Angular with Jasmine

React with JEST

Please create new project

ng new angular-testing

please check the spec file which contains one suite and three spec.

to run the application we have to use the command as

ng test

please create component, service and model using command as

ng g c employe : it is use to create the component

ng g s employee : it is use to create service

ng g class employee : it is use to create model

26-09-2021

Open backend project ie Employee Backend REST API

Run npm install to download node\_modules folder.

In mongo db bin folder

Run to command in command prompt ie

mongod : to run the server

mongo : to run the mongo terminal.

npm install nodemon –g

nodemon it a type of external module which help to run express js application.

If we do any changes in express js application automatically it will restart the application.

nodemon app.js

Mock testing :

In general one function depends upon another function or one class depends upon another class.

Component depends upon the service, service class depends upon the backend technologies. Backend technology depends upon the database.