Day 23 : 3 Dec 2024 CB FSD - Planning and UI Design

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

Testing is use to test actual and expected output.

Testing mainly divided into two types.

1. White box testing

Input Process Output

1. Black box testing

Input Process Output

Unit testing : it is a type of white box testing which help to test function functionality working or not. Unit means smallest code written inside function or method etc. these code work independently.

Jasmin : help to do JavaScript as well as angular framework

Mocha : we use for node js testing

Jest : react js application testing.

jUnit and TestNG : help us to do Java application testing.

Testing tool are divided into two types.

TDD : Test Driven Development

TDD is a software development practise where we write test case or function before writing actual code.

1. Write test
2. Run the test
3. Write the code
4. Re – run the rest : till actual and excepted output match.

white box testing : junit

BDD : Behavioural Driven Development :

black box testing : cucumber

Steps in BDD

1. Write a scenario : define features and write a scenarios which describe how the system should behave.
2. Automate the scenario : write automates tests for these behaviour.
3. Write the code : develop the system to make these test pass.

Simple unit testing using angular

Cucumber is an open source testing software tool. Which come under the category of BDD. Cucumber test are written in simple, natural language that anyone can understand. In cucumber BDD, whatever you write must go in into Given-When-Then style or steps.

Cucumber use one generate language ie Gherkin language. It is a domain specific language but easily readable.

Create a folder with name as cucumber-testing-app

Open the terminal inside cucumber-testing-app

npm install -g cucumber -D

or

sudo npm install -g cucumber -D

npm install @cucumber/cucumber

or

sudo npm install @cucumber/cucumber

npx cucumber-js features

create separate folder : cucumber-testing-app

npm install @cucuber/cucumber

features folder

stepDefinitions folder

add.js

const {When,Then,Given}=require("@cucumber/cucumber");

let a,b,sum;

Given('Numbers are provided', function () {

    a=10;

    b=20;

    return 'done';

});

When('Doing the addition of two numbers', function () {

    sum = a+b;

    return 'addition done';

});

Then('Display the output of two numbers', function () {

    console.log(sum);

    return 'Display the output';

});

app.features file

Feature: Add Functionality

    This features is use to add the number

    Scenario: Adding two number

    Given Numbers are provided

    When Doing the addition of two numbers

Then Display the output of two numbers

Npx cucumber-js features

To access any web project in cucumber we need to install third party module

Ie

npm install selenium-webdriver

selenium-webdriver it third party node js module which help to load any web page and allow to access that web page html contents.