Phase 5 :

Day 1 : 05-11-2022

Testing, Devops and deployments

Testing using TestNG Framework

Selenium Automation testing tool

Docker

CI and CD tool with Jenkin

Overview of Kubernetes

Cloud computing using AWS : S3, EBS and EC2 instance

In phase 3 : jUnit testing (jUnit 5)

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

Running the application using any technologies means indirectly we are testing the application.

Read a, b

Compute sum = b+b

Write b

Testing the function functionality without main method is known as testing.

TestNG TestNG is an open source testing framework inspired from Junit and NUnit. In TestNG Ng means next generation. It is light weighted framework.

Compared to Junit testing framework

1. They provided more meaning full annotation in TestNG
2. It support parallel testing.
3. It provided default testing report in the form of HTML.
4. It support group of test.
5. It support priority base test.

Junit testing mainly use for unit testing.

TestNG framework mainly use unit testing as well as integration testing with one of the automation tools ie Selenium.

Test case : It is type of class which contains more than one test function which help to test function functionality. Inside that class we can write more than one method with @Test Annotation.

Test suite : test suite is use to execute more than one test case class. In Junit we need to make normal java class with annotation to run the test suite. In TestNG provide test suite using xml file.

Assertion : inside test we can use more than one assertion method which help to check actual and expected output.

TestNG hook methods or Life cycle methods

Day 2 : 06-11-2022

TestNG framework execute more than one test function by default ascending order of function name.

If we want to execute base upon our requirement then we have to use priority attribute.

TestSuite is use to execute more than one test case. Every test case class contains more than one test function.

Mock testing

We can do mock testing using jUnit as well as TestNG framework.

Controller or Rest Controller

Http Layer testing using Spring boot.

Html, css, js

Angular : Jasmine and Karma.

React JS : JEST

Jasmine, Mocha with Chai, JEST these framework help to do the unit testing for UI component.

Java : jUnit and TestNG

Selenium : Selenium is an open source Web UI Automation testing tool. Which is use to do the Testing for UI component develop in any language. Selenium is use to integration testing.

Selenium support other programming language like Java, Python, C#, Perl etc.

Selenium support to integrate with any testing framework like junit or TestNG.

Selenium provided web driver which help to load the web page base on browser.

And it provided lot of API which help to read the dom elements. But Selenium doesn’t provide assert methods so we need to take the help of TestNG or junit which provided set of assert method which help check actual and expected output.

Type 4 driver for MySQL database

Class.forName(“com.mysql.cj.jdbc.Driver”);

This class is a part of mysql connector jar file.