Phase 3

Day 1

06/03/2023

Creating maven project through command prompt

mvn archetype:generate

after type it will ask for the user to enter the information.

Please hit enter key.

After it will ask to version of the project

It will ask groupid : groupname

It will ask artifactiid : projectname

It will ask project version : here hit enter key

Package name : com

Then it will ask to create the project as Y.

After enter Y it will create simple maven project.

Maven GOAL

mvn validate : it check pom.xml file and verify all tags are correct or wrong.

mvn compile : this command is use to compile the project and it will create target folder. This folder contains all .class and build and files.

mvn clean : it will remove target folder.

mvn package : it will help to create jar or war file. (jar file for core java project and war file for web project).

Jar for core java project which contains .class file

War for web application which contains servlet, jsp, xml, html, css and javascript etc. which we need to deploy on server.

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

MVC

To run out application layer without main method is known as testing.

Service Layer :

Testing : mainly divided into 2 types.

Block box testing

Input Process output

White box testing

Input Process Output

Unit Testing : Unit testing is a type of white box testing which help to test function functionality working or not. Unit is smallest work which work independently. Ie inside method or function or modules.

jUnit is open source light weighted framework which help to do unit testing using Java technologies.

Test NG (next generation): it use for unit testing as well as integration testing.

nUnit : for .net

Jasmine : for HTML,CSS,JavaScript as well as Angular

React Js : JEST

Node JS : Mocha with Chai as well as Jasmine.

jUnit : 3.x (without annotation)

4.x with annotation

5.x with annotation with combination of more than one third party framework with Java8 features.

Test case : In Java test case is a type of junit test case class which contains more than one test function which help to test function functionality working or not.

We need to create normal java class with method with annotation as @Test.

Test suite :

Junit provided lot of pre defined assertXXX type of method which help to check expected and actual output.

jUnit hook :

4 hook we can use

@BeforeClass

@AfterClass

@Before

@After

Test Suite : It is a type of test class which is responsible to execute more than one test case class.

Mvn test : command is use to test through maven through command prompt.