QEA

Quality Engineering

&

Assurance

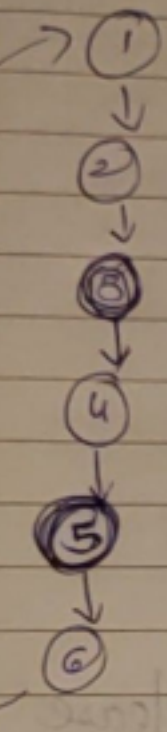
using

Java & Selenium.

18/2/2020

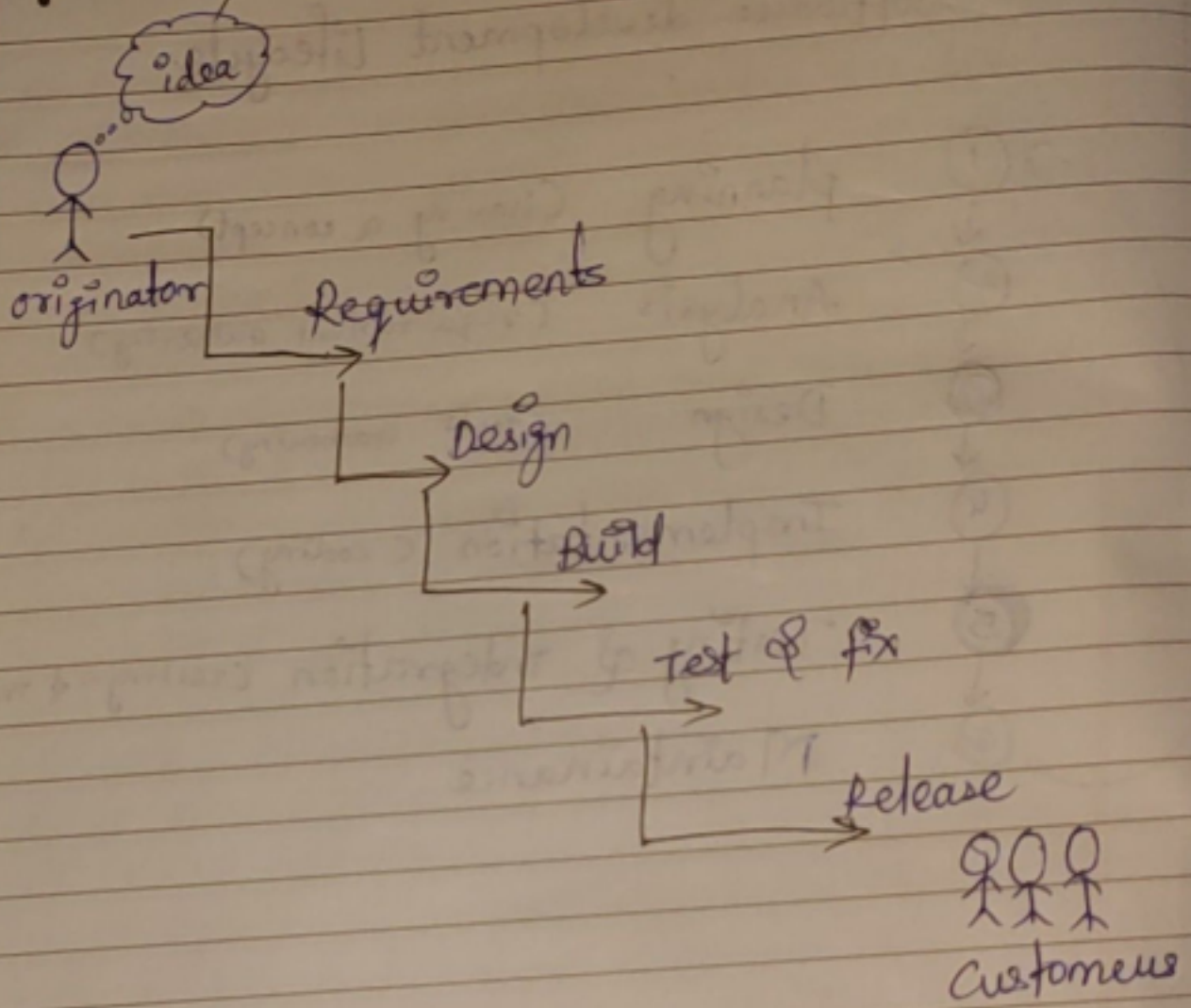
SDLC

Software development Lifecycle



1. planning (having a concept)
2. Analysis (requirement gathering)
3. Design (Tools Gathering)
4. Implementation (coding)
5. Testing & integration (Testing & integrating)
6. Maintainance

Sequential Development



Note:- We have two types of SDLC

- Sequential
- Iterative & Incremental.

① Sequential Development

- Here the development of the software becomes in Linear way ie step by step
- This means that the Next phase should begin when the previous phase is completed.
- Theoratically it follows the Sequence or has no overlaps between phases but in practical this does not follow

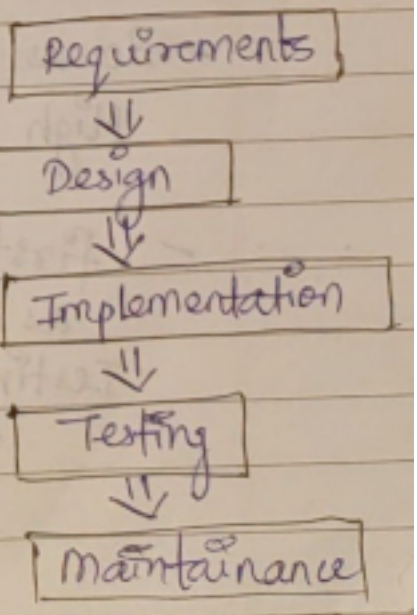
  ie we may be testing a part of a system simultaneously we are designing it and in betn the customer may add the new requirement & so on.

- Two Types

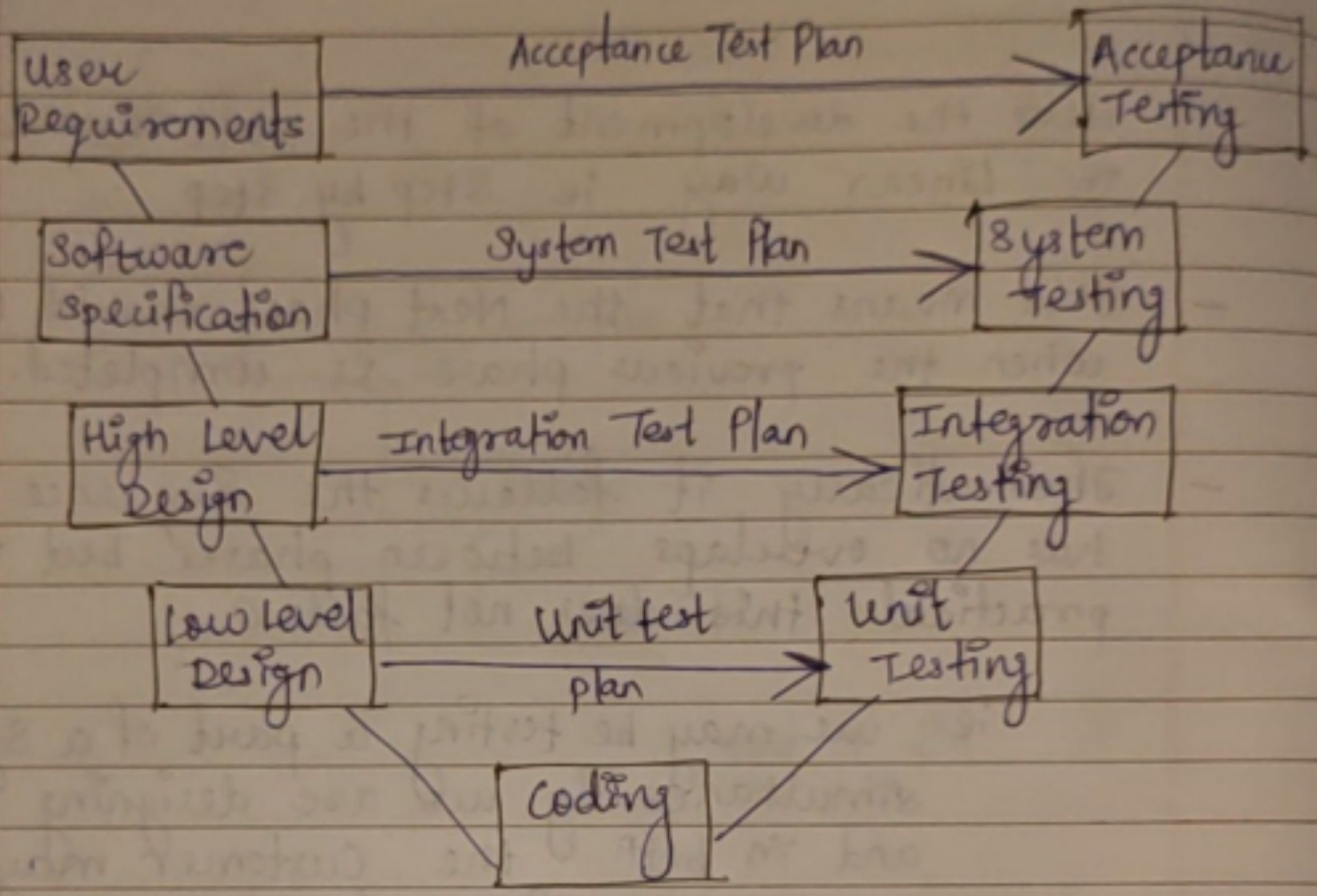
(a) Waterfall Model.

→ Most ancient model in SDLC, here activities happens one after other

→ we Gather Requirements we design, code, we Test & deploy after that if any problem occurs we Maintain it.



(b) V-Model



- In this Model testing happens at every Stage.
- Here we divide Requirements into two types User Requirements & Technical (software specification)
- So as design is also divided in two types High Level design & Low level design.
- first five steps from the Left are Same as waterfall Model, then comes the Testing Part

- In V-model we have more emphasis on testing whereas in waterfall importance we had only one step.

- Here we have 4 types / levels of Testing

① unit testing
② Integration
③ System
④ Acceptance

Incremental & Iterative Models.

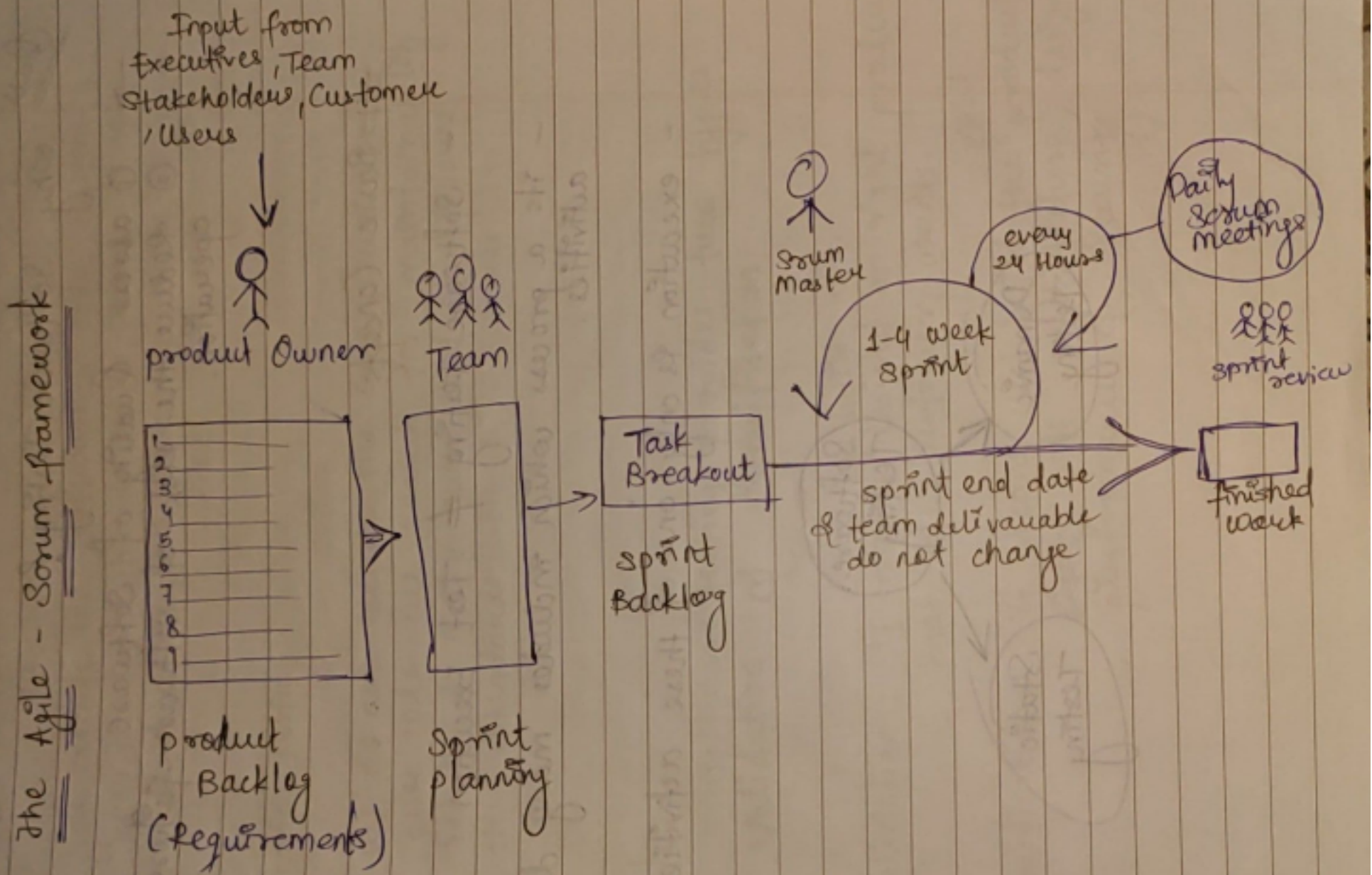
Incremental Model : we develop software in Increments, we complete the whole cycle ~~one~~ section by section

Iterative Model : we work on all sections simultaneously. here we divide our model in iterations

SCRUM

- it is combination of both Iterative and Incremental Model which is considered as an Agile Methodology
- In Scrum we have short Sprints ie either of one weeks, Two weeks, hours ...etc
- At the beginning we collect the Requirements and call them as Product Backlogs.
  - ↳ and then in each Iteration we take some features from product Backlog & finish them inside sprint or Iteration called Sprint Backlogs
  - ↳ at the end of sprint or Iteration we deliver some Increment to the Software

The Agile - Scrum framework



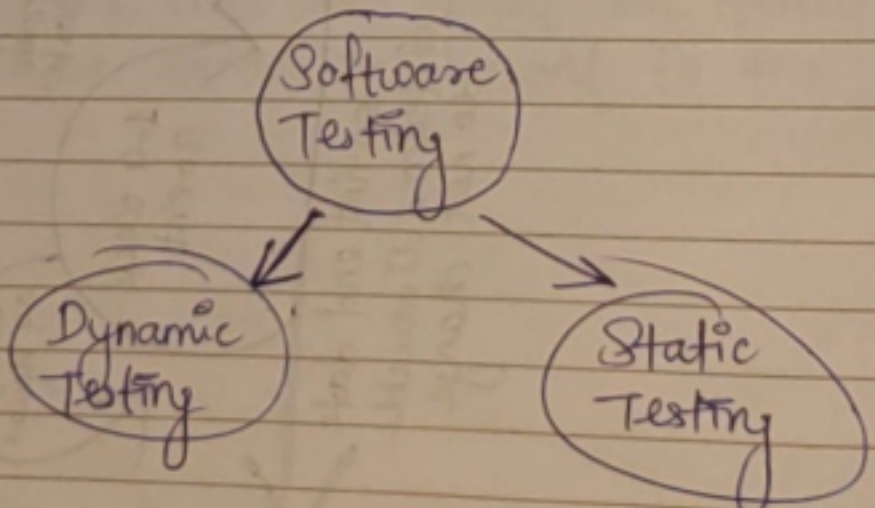
Software Testing

Q. Why Software Testing ?

→ ① assess Quality of Software
② Reduce the risk of software failure in operation.

Basic Concepts

- Software Testing ≠ Test Execution
- its a process which includes many different activities.
- execution is only one of these activities.



- Dynamic Testing.
  - you execute the Software, code, System, open the website do things inside it or Android applications

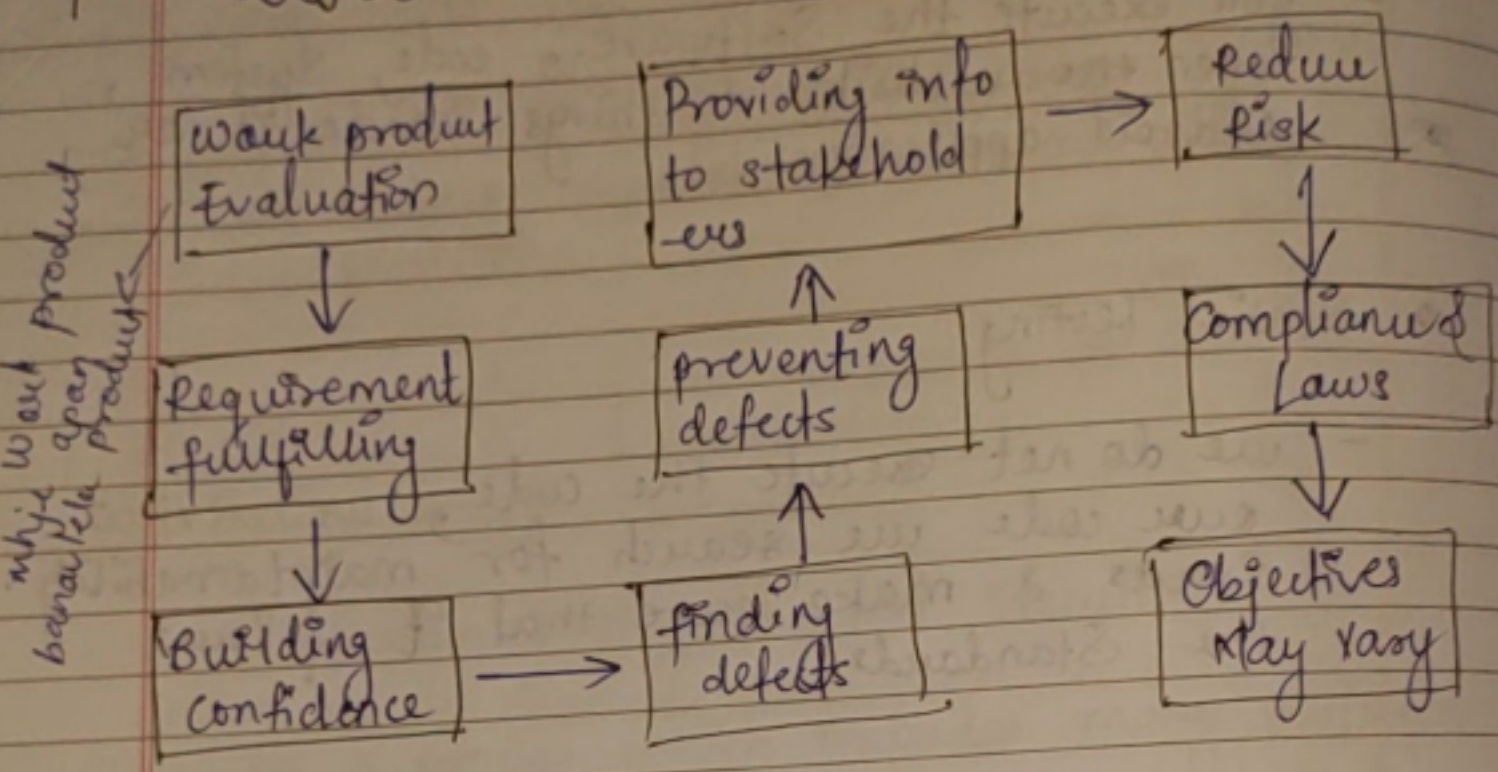
- Static Testing
  - we do not execute the code, we review our code we search for maintainability issues & make sure that it follows the Standards

★ Note:-
Software testing provides two types Validation & verification

Validation : it means we build desired or right product that the customer wants.

verification:- it means we build the right product, its architecture, design, performance & Security.

* Objectives of Testing



Note: We testers recieve build from the developers. We test it and report defects to developers, we are not the one who remove the defects.
The removal of defects viz called debugging is a development activity

after debugging we test it again.

* Test ~~Cases~~ Process

- Test process is the steps that we go through in order to test our software. it contains 3 Basic parts

planning
~~Design~~
~~execution~~

planning
Design
execution

∴ Test process Activities.

Test planning	P
Test Monitoring & control	M
Test Analysis	A
Test Design	D
Test Implementation	I
Test Execution	E
Test completion.	C

Test plan
Test strategy
analyze software
design test Cases
test scenarios
.choose env, write test Script
find defect report them
Test Summary report,
Test progress report.

retesting, Regression Test,

✱ Test Levels

- Test levels are group of test activities which are organised and managed together
- each test level is a instance of test process

we have 4 test levels.

done by developer

① Unit or Component Testing.

→ in this we test the thing which are seperately Testable
→ here each module is tested seperately or classes of code.

② Integration Testing

→ Now integrating all this modules into one is called as integration testing.

done by Tester

③ System testing. (about 90% testing is done here)
→ here the whole system is tested at once & all defects are recognized.

done by software

④ Acceptance Testing
→ After system we perform Acceptance testing.

- Integration testing

  Two types

  (a) component integration
  → does integration between components
  → done by developer

  (b) System integration
  → when there is large project it has systems like front end, Back end, database, webservice
  → done by testers

- Acceptance testing

→ we find as many defects possible in this
→ assures that software works correctly
→ done by users & stakeholders

→ Two types
  Alpha & Beta Testing.
  (do test in company premises) (does testing anywhere)

Testing Types

① functional Testing :- we test main functions of system eg Login

Answer Question in Yes / No

ie Login Yes working....

② Non functional Testing :-

it tests how the system preforms.
ie Is the Login process fast enough
, Is the response time faster.

Answer Question as
whether software is working fast or slow.
whether software is secure or not secure.

③ Blaik box Testing :-

we Test the system without having internal knowledge about the System.

④ white box Testing :- In this we provide I/P to software and also look at internal structure of software ie what is happening inside the code when we apply certain Input.

(5) Dynamic testing :- we test the software by executing it.

(6) Static Testing :- we don't execute system for this, we just review the requirements, user stories ...

(7) Re-testing :- After debugging when we again test the software for checking the defects, it is called as Re-testing. or conformation Testing.
(we check only changed part)

(8) Regression Testing :-

Here we test the unchanged areas so that we can ensure that they are not affected by the changes done.

(9) Smoke Testing :-

Sometime in applicatn like FB, Insta if they make a small change, should they check or Test whole application, Answer is No, we should check only main & Basic functionalities

Test Case Writing.

- we have to write the test cases for different scenarios.
- A test case is set of preconditions, input, actions, expected results and post conditions. developed based on test conditions

1) Test Case Title :-

→ the title which we provide should give the entire information about the test case.

eg verify Login with valid username & password.

2) precondition.

eg Registration is precondition.

eg user is already registered with valid credentials.

3) Test steps :

→ ⓐ enter a valid user name
ⓑ valid password
ⓒ click on Sign in

4) Expectation result

→ user is logged in Successfully and redirected to xyz page.

5) Test Scenario: (Test Suite)

→ eg Login.

6) Test Environment

→ windows 10 - chrome - wifi
Samsung Galaxy Note 10 - Android 10 - 4G Network
Iphone 11 - iOS 13.3.1 - 5G Network.

7) Actual Result:-

→ we should never fill the actual result ~~unit~~ until we execute it.

8) Status

New (ready to Test)	The test case is not executed
& Pass	test case executed & actual result is same as expected
fail	actual is not same as executed
Blocked / skipped	Test case can't be executed (login without registration)

Note:

we use certain Tools to write the test Cases

eg Google sheet.

Agile

#Basics

Values.

1. Individuals & interactions are more imp than process or tools
2. Working software over comprehensive documentation.
3. Customer collaboration over contract Negotiation.
4. Responding to change over following a plan.

* 12 principles of Agile *

(1) Our highest priority is to satisfy the customer through early and continous delivery of valuable software

(2) Deliver working software frequently. at interval from few weeks to few months, with a preference to shorter time scale

(3) Working Software is primary measure of progress

(4) Continous attention to technical excellence & Good design enhances agility

(5) Simplicity - art of maximizing amount of work not done

(6) The most efficient and effective method of conveying information to & within a development is face to face conversation

BUG REPORT.

Q what is defect report ?

→ Documentation of occurance, nature & status of defect.

where defect is imperfection or deficiency in work product where it does not meet its requirement or specification

① Bug Report title

→ section ⇒ description
eg Register → No error message appears when user leaves password field empty

② Steps to Reproduce
→ must be specific
→ eg :-
① open www.facebook.com
② click on Hamburger icon (≡)
③ Scroll down to bottom of screen
④ click on settings
⑤ click on data usage
⑥ change data usage to Minimum

③ Expected Result :-

→ Same expected result like in Test-Case.

④ Actual Result :-

→ what really happened when executed.

⑤ Test Environment :-

→ specify environment on which defect occured.
(win 10) (Android) (ios)

⑥ Screenshot or video :-

→ red rectangle must be around defect area.
→ ss must show whole screen
→ video should show clicks on keyboard

⑦ Bug Priority

→ Critical :- login not working properly
High :- login page respond slowly
Medium :- Some pages have poor Performance.
Low :- Spelling mistake.

∴ Types of defect

1) functional

eg forget password functionality is not working.

2) visual (UI)

→ if is visual or UI defect (css chukla)

3) content defect

→ Mispelling or having some words which should Not be there.

4) Performance

→ eg video takes too much time to load.

5) Suggestion :-

→ This is not a defect, you just give the suggestion

eg Section 4 (24. Types of def) 2:40)

Screenshot of defect (Scaly)
prtscr key on keyboard

video of defect
(screen-o-matic on google)

Note :-
Technique viz used by tester to check the user stories

I	Independent
N	Negotiable
V	Valuable
E	estimatable
S	Simple
T	Testable

TestLink

software for writing Test Cases

functional testing Course section 7

Que How to visit Bugfinders website

→ https://go.dijivanka.com/as-functional-tester

Bug finder, Utest, Trello

→ Register to it

Black Box Techniques.

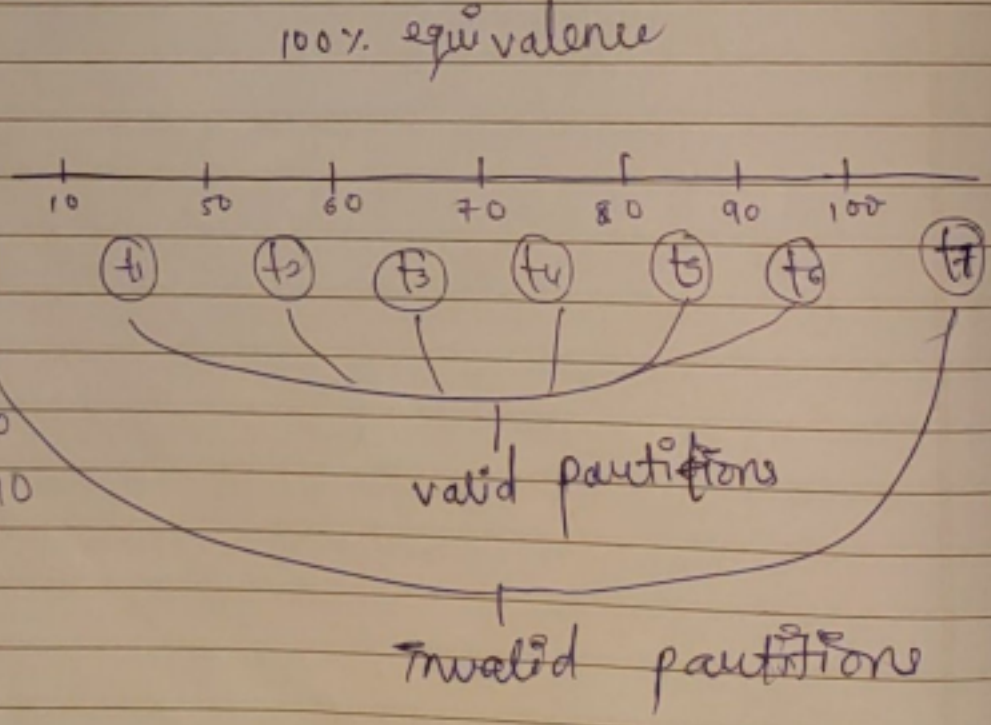
- Black box testing is a testing in which testers doesn't have any internal knowledge of the System.

- There are some techniques (4) to design test Cases in Black box testing

1. Equivalence partitioning.
2. Boundary Value Analysis.
3. Decision Table Testing
4. State transition Testing.

* Equivalence Partitioning. (EP)

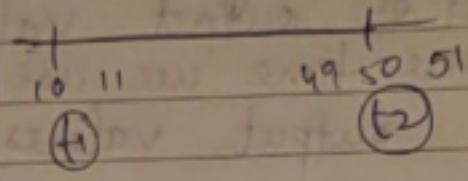
- Here we divide System into Equal Partitions.
- These partitions are not of same size but they have some criteria which is related to each other.
- Here we should have test case for each partition
- when should we use this
  → In a system which has a range of values, in timing, in money.
- eg Teacher Maintaining Marks of Students



t1 25
t2 55
t3 65
t4 77
t5 83
t6 99
t7 >100
t0 <10

★ Boundary Value Analysis. (BVA)

- it tests the Boundary of the System
- this technique is considered as extension to equivalence Partitioning.
-

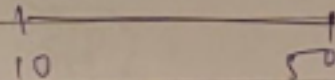


testing Boundaries (t1) & t2 much better than Equivalence Partitioning.

- Two Types

① 2-value

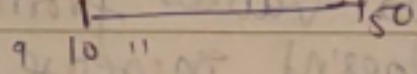
→



if their is less than equal, GT, apply this

② 3-value

→



here we will check at 9, 10, 11 & 50

= Notes about EP & BVA

① here each value must belong to only 1 partition, we can't have a value viz part of two partitions at same time.

② Boundary Value analysis (BVA) can be applied to both input or output values.
(most of the time we use it to check input & output values.

③ We have two types of partitions valid & Invalid Partitions.

④ Equivalence Partitioning Coverage

→ it is nothing but

$$\frac{\text{No. of partitions covered by test cases}}{\text{Total partitions}}$$

⑤ Boundary Value Analysis Coverage

$$\frac{\text{No. of Boundaries Covered by Test Cases}}{\text{Total Boundaries}}$$

⑥ Testing two values from same partition doesn't increase the Coverage.

★ Decision Table Testing (section 6)

- different combinations of conditions result in different outcomes.
- Number of Table Rules $= 2^n$

where

n = no. of Questions

2 = (Yes or No)

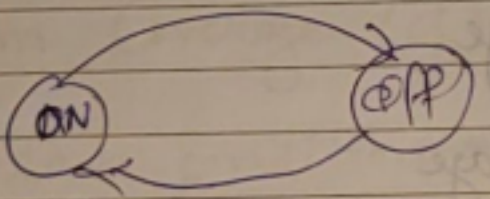
In Some Cases we may have

3^n

where

3 = (Yes / No / Maybe)

★ State transition System



* White Box Testing. * (& udemy)

- also called as architectural testing.
- here tester knows internal structure of System

Mostly used by

- developers
- Testers in critical systems.

- Techniques in white box techniques.

1) Statement Coverage
2) Decision Coverage
3) Condition Coverage
4) Path Coverage
4) MCDC
5) Loop Testing

1) Statement Coverage (SC)

→

$$SC = \frac{\text{no. of statements Tested}}{\text{total statements}}$$

Statement is simply any line of code.

2) Decision Coverage (DC)

→ here we test all the decision outcomes in the code

eg `if (x > 3)` — this is decision
`print (Hello)`

$$DC = \frac{\text{decision outcomes Covered}}{\text{Total decision statements.}}$$

3) Condition Coverage (CC)

→ Test each condition in the code. in the True or false case

eg `if (x>3)`

4) Path Coverage (PC)

→ test all possible paths in the Case.

if else, looping, switch case

5) MCDC

modified condition / decision Coverage is a mixture of condition & decision Coverage

6) Loop Testing

for, while

→ we use this technique when their are loop in our code.

nested loop

* Selenium *

- Selenium is a web based automation tool.
- It is not used for desktop application & mobile app
- Supports :- Mozilla, Chrome, Opera, Safari Internet explorer.
- Supports :- Java, C#, python, Ruby, Jawascript, PHP

Java Installation Day 6 _ Section 2

Note :- Selenium is a third party open source tool it is not a programming Language.

* Implementation of framework * Support utils

* property file :-
  - Stores key value pair, is a subclass of Hashtable.
  - used to store project config or setting

setproperty() = used to write the properties file key values

eg properties p = new properties();

fileOutputStream → writes in file

fileInputStream → Reads from file

~~# MAVEN~~ ~~# Section 9~~ Excel file in Java

getProperty :- method to read properties

Section 9

~~# Write~~ Excel file in Java.

Apache POI libraries are used to read/write the excel files in Java

Section 10

MAVEN

helps developers to build the project

Section 11 Transactions

- Transaction is a unit of work (certain process is executed during each transaction
- One or more SQL statements executed together
  either all statements are executed - Commit
  None of Statements are executed - Rollback

Metadata

- By default the database connection is to auto-commit

★ myConn.setAutoCommit(false); ★

myConn.commit();
myConn.rollback();

JDBC Section 5 Metadata

Ques What is BLOB?

A→ A BLOB (binary large object) is a collection of binary data stored as a single entity in database.

→ this are documents, images, audio or other binary objects

Ques CLOB?

A→ - A CLOB (character large object) is a collection of character data stored as a single entity in a database.
- used to store large text documents.

DB support Not universal

Xpath, CSS path # JavaScript

Xpath.

→ it is a query language which is used to find a node or set of nodes in XML/HTML document.

Syntax

// tagname [@ abcd = ' '] . sendkeys (' ')

@ specifies attribute
abcd → attribute Name
' ' → attribute Value
sendkeys (' ') → Value

"//input[@aria-label = 'first name']". sendkeys ("DE")

JavaScript (refer udemy)

front end.
Back end.
full stack.

wrote in Script tag either included or written

JSON

Javascript object Notation.

→ JS is a programming Language.

→ JSON was originally created to hold structured data to be used in JS

- Data types for JSON

String
Numbers
Booleans
Null.

Array are List

objects use curly brackets { }.

29/4/21

* Selenium *

- Selenium is a open Source UI Automation Tool
- Selenium is used to automate the web application
- Selenium is used to automate desktop Based application
- we are using Selenium 3 which was launched in 2016

* Components of Selenium

1) Selenium IDE
2) Selenium RC
3) Selenium WebDriver
4) Selenium Grid.

* Selenium IDE (Integrated development Environment)

→ it is a record and play base tool

→ it is a browser plugin which only compatible with mozilla firefox

→ not allowed to put condition like if else.

* Selenium RC (Remote Control)

→ user is allowed to create their own test cases in user defined Languages

Pros	Cons
Cross Browser & platform (works on any browser)	more complicated the IDE
perform Loops & conditional Statements	programming knowled -ge is Must
data driven testing is possible	Selenium RC Server needs to be run to start the execution
	poor support to JS

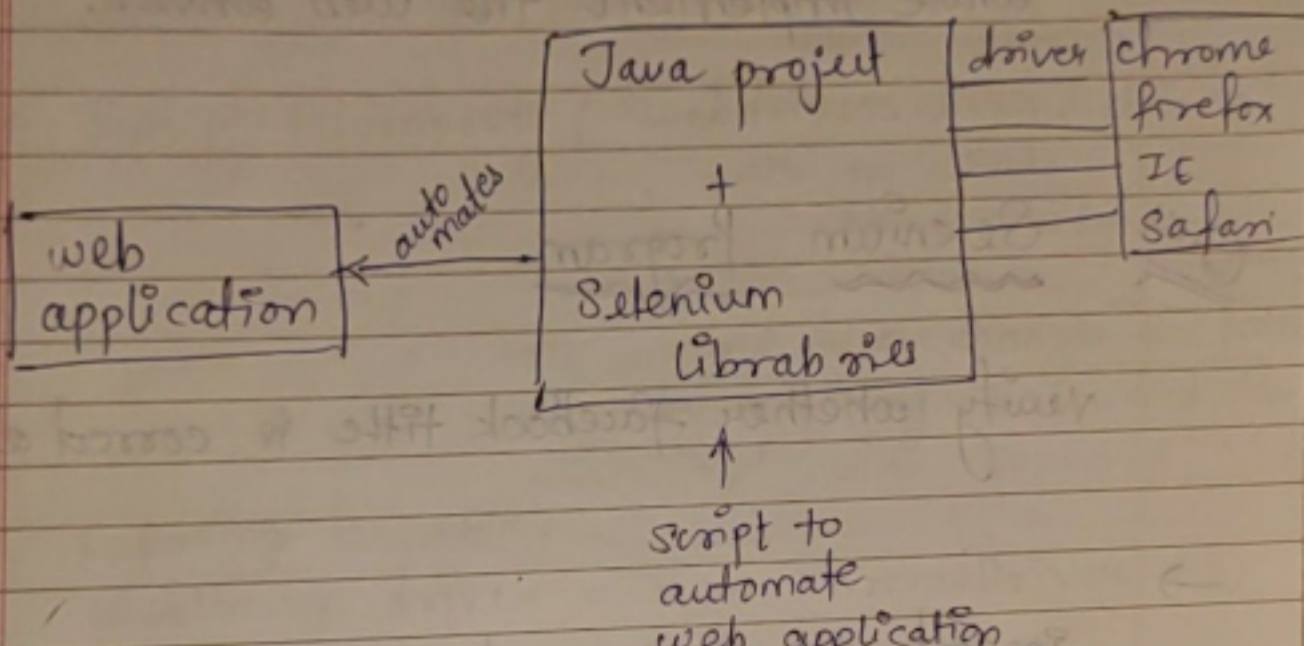
* Selenium WebDriver. (WD)

- Selenium webdriver is better than IDE & RC
- Selenium webdriver is more stable than RC beoz
- webdriver unlike Selenium RC, does not rely on JavaScript for Automation. it controls the browser by directly communicating with it.
- supports multiple programming language Java, C, python, PHP, Perl, Ruby.

☆ Selenium Grid

- Selenium Grid is tool used for execution of script
- used for parallel execution.
- compatible with both RC & WD
- works like execution engine for Selenium Tests
- enables simultaneous running of tests in multiple browsers & environment.

- uses hub & nodes concept. The hub acts as a central source of Selenium commands to each node connected to it.



when we want to execute this script on a certain browser then we need a driver

chrome = chrome driver
Safari = Safari driver
firefox = gecko driver
IE = Internet explorer driver

} driver for Selenium

webdriver is a Interface.

* Webdriver

webdriver is an interface in Java

chromedriver, Safaridriver are classes which implement the web driver.

Qw Selenium Program.

verify whether facebook title is correct or not.

→

```
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome
                        .ChromeDriver;
import org.testng.annotations.Test;

public class firstSeleniumTest {

    @Test → putting an assertion / declaring
            method for test
```

p.T.O

```
public void verifyFaceBookHomePage () {
    String URL = "https://www.facebook.com";

// open the URL with Selenium.

System.setProperty ("webdriver.chrome.driver"
                    , path in windows of chromedriver.exe file
                    and also change the path by replacing backward slash '/' with forward '\'.
//opening browser.
WebDriver driver = new ChromeDriver ();

// To maximize window
    driver.manage().window().maximize();
    driver.get(URL);

// verify Homepage Title ####
    String pageTitle = driver.getTitle();
    S.O.P("we got the title like" + pageTitle);

    Assert.assertEquals(pageTitle, "facebook - log in or sign up");

// To close Browser
    driver.close();
}
```

Assert is a method to determine pass or fail status of Test Case

Output :-

We get Title like : facebook - login or Sign up.

PASSED : verify-facebookHomePage

Default test
Tests run : 1, failures : 0, Skips : 0

---

default suite
Total test run : 1, failures : 0, Skips : 0.

---

for different browsers we have differ patch of code i.e

(1) Chrome

System.setProperty("webdriver.chrome.driver", path);
WebDriver driver = new ChromeDriver();

(2) firefox

System.setProperty("webdriver.gecko.driver", path);
Webdriver driver = new FirefoxDriver();

(3) Opera

```
System.setProperty("webdriver.opera.driver", path);
WebDriver driver = new OperaDriver();
```

(4) Internet Explorer.

```
System.setProperty("webdriver.ie.driver", path);
WebDriver driver = new InternetExplorerDriver();
```

— × — × — × —

* close() :-

→ This method closes the currently open browser window, closes only one window on which selenium is focusing.

* quit() :-

This method close all the open instances of Browser.

Javadoc ↓

Option class ↓

close	Quit
① It doesn't closes the driver which we have invoked	① it closes every thing.

★ Java Doc

Javadoc is a complete source from where we can get all the libraries & classes of Selenium

Go to ⇒ seleniumHQ ⇒ downloads ⇓

Java → javadoc

★ Option class

option classes are used to set the browser preferences & browser setting.

ChromeOptions(), FirefoxOptions(), InternetExplorerOption() .... etc

(Jar aplyala kutla browser as a default thevaycha asel tr apn he use karu shakto)

- using browser options class we can set options like make the browser headless, load extensions, set binaries and set proxy so on.

- **Methods of options class**

① **setBinary():**
This is used to provide the binary exe path of browser. This method is used when we want to perform test on same browser but different versions

section 8

8q)

```
[ChromeOptions co = new ChromeOptions();
co.setBinary("Path where particular version of chrome is installed")]
```

② **SetAcceptInsecureCerts()**
This is used to bypass the authentication certificate or SSL certificate to test the website.

8q)

```
FirefoxOptions fo = new ...()
fo.SetAcceptInsecureCerts(True)
```

③ setProxy () :-

To set proxy we have proxy class in Selenium. We need to set the ~~priority~~ proxy and pass the proxy object in setProxy() method.

```
{ FirefoxOptions fo = new FirefoxOptions();
  Proxy prox = new Proxy();
  prox.setProxyAutoConfigUrl (any proxy url)
  fo.setProxy(prox);
```

registering proxy with option class

④ setHeadless () :- (Headless means no UI)

Headless means no UI. Selenium helps user to run Tests in headless browser and make browser Headless.

(executes Test case in background we can't see it)

```
fo.setHeadless(true);
WebDriver driver = new FirefoxDriver(fo);
driver.manage().window().maximize();
driver.get("https://cacert.org");

String pageTit = driver.getTitle();
Assert.assertEquals(pageTit, "welcome to CAcert.org");
```

⑤ addArguments() :-

This method is used when user wants to open the browser with some specific permissions. like disable infobar → manage browser Notifications.

```
ChromeOptions co = new ChromeOptions();
co.addArguments("--disable-infobars--");
co.addArguments("--disable-notifications");
```

disable Notifications ←

```
WebDriver driver = new ChromeDriver(co);
driver.manage().window().maximize();

driver.get("url");
```

* Method of firefox. & Chrome

⑥ setUnhandledPromptBehaviour():

This method helps the user to handle the unhandled alert.

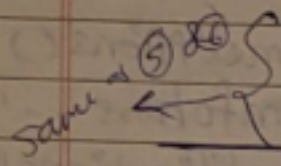
```
ChromeOptions co = new ....
co.setUnhandledPromptBehaviour(UnexpectedAlertBehaviour.ACCEPT);
```

(7) SetPage Load Strategy.

→ we can execute the test without been waiting for Loading the page.

three types :- Normal (default)
Eager
None

co.setPageLoadStrategy(PageLoadStrategy.Eager);



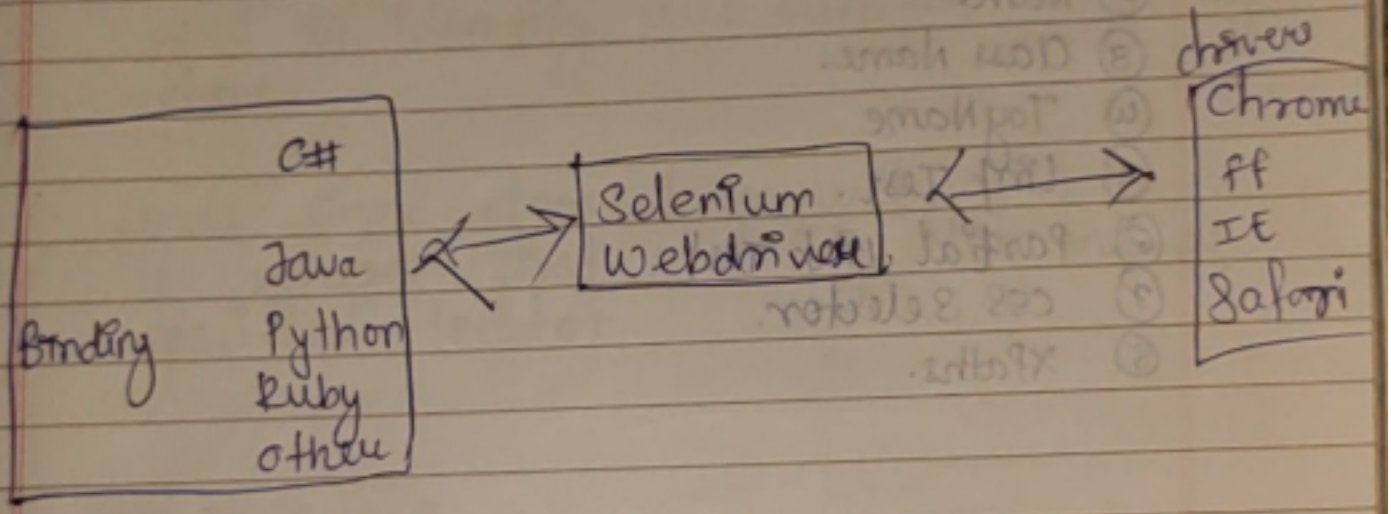
Normal :- download whole page then execute

None & Eager :- ~~wit~~ Selenium will not wait to download the Page.

* Architecture of Selenium webdriver:

- Selenium webdriver is a well designed object oriented API which helps in communication between languages and browsers.

- Selenium makes it possible for programmer to communicate with browsers through Webdriver.



* WebElement:

- anything viz present on webpage like textbox, text, checkbox, button, link, radio button, etc. are called as Webelement

- The object we used to identify and work on web element is called Locator

locates the particular element

★ Locaters

- Selenium uses locators to find & match the elements of the page that it needs to interact with.

- we have 8 ~~of~~ type of locaters

1. ID.
2. Name.
3. Class Name.
4. Tag Name.
5. Link Test.
6. Partial Link Test.
7. CSS Selector.
8. XPaths.

- Priority of Locaters

1. ID.
2. Name.
3. Class Name.
4. CSS Selector.
5. XPaths.

for project look Locatees video

- How to find the Locatees

we need to find developer tool of Browser press "f12" button or ctrl + shift + I.

* find element :-

- used to identify web element using By class

- finds single element on webpage.
- it returns first matching element of specified locator.

* find elements :-

- returns multiple elements matching / having same locator

- findElements() returns List<WebElement>

* Xpath & CSS Selectors.

- when element doesn't have any locater ie id, name, className etc we use xpath or css selector.

- xpath is xml path which will search given element in html dome.

- 2 types

① Absolute
② partial / Relative

① Absolute

- direct way to find element in HTML Dom
- we provide full path to find element
- begins with slash (/)
- hard for maintainance
  (if we use absolute xpath & if developer updated the code, we too have to change our code)

② Relative XPath :-

- starts from middle of HTML DOM or starts from anywhere.
- starts with (//).
- eg xpath = //tagname [@attribute = 'value']

Search anywhere

★ Customized xpaths

it can be created by going on webpage & inspecting a particular element and then right click and copy xpath.

★ CSS selector

- it is a combination of element selector & selector value.

- CSS selector ID :-

css = <HTML tag><#><Value of ID attribute>
<HTML tag><#><Value of ID>
eg input#login1

- css selector - class

syntax :-
<HTML tags><.><value of class attribute>

eg .cmail|copy
.cmail|copy.

- css selector Attribute

syntax :
<HTML tag><[attribute = Value of attribute]>

★ Create Combined Xpath.

here we associate 2 or more HTML attribute in single xpath.

eg facebook first & lastname : combo of Two HTML attribute

// input [@ type = 'text' and @ name = 'firstname

- **Text() function.**

→ helps us to find element based on text present in the element.

→ It is case sensitive

→ Syntax : //HTMLTag[text()='value']

3rd ~~Hods~~ Hands on selenium week 2

eg By.xpath("//td[text()='Sivakumar']")

String siva = element.getText();

webelement

getText() method obtains innerText of an element.

Sd W2 4th Hands on

get details of this function.

~~5th~~ ~~Random~~

in main

see use of webelement.getText()

eg mail.getText().

Handson 6

* Alert Class :

used in Selenium to handle the Javascript popups

methods

(1) driver.switchTo().alert().dismiss()
→ To click on 'cancel' button of alert

(2) driver.switchTo().alert().accept()
→ to click on 'ok' button of alert.

(3) driver.switchTo().alert().getText()
→ To capture the message in alertbox

(4) driver.switchTo().alert().sendkeys("Text");
→ To send some data to alertbox

Note

To make Driver Switch to alertbox

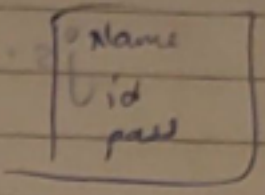
Alert alert = driver.switchTo().alert();

★ Ancestor

used to find specific member at specific layer.

(ek hi level ke sab element milte)

hands on 5



By.xpath("//input[@id='nickname']/ancestor::div[1]")

ancestor of Name are id pass because they are on same level.

★ Java Script executor.

- In Selenium we have locators like xpath, css, etc
- if they don't work we can use java script executor

org.openqa.selenium.JavascriptExecutor

Syntax

JavascriptExecutor js = (JavascriptExecutor) driver;

js.executeScript(Script, Arguements);

Script = Js code
Arg = optional, arg to JS

Hands on 7

— x — x —

Ques difference between Navigate & geturl.

→ both are used to visit a particular ~~url~~ URL

but

Navigate does not wait for a webpage to Load

whereas ~~get~~ geturl wait for a webpage to Load

Navigate maintains browser history or cookies to navigate back or forward