Test Automation:

-🡪 it is used to automate the manual test case.

-🡪 here we will use third party tool to evaluate the product

-🡪 it is implemented in a single module or whole project

When to Automate:

-🡪 when the requirement is stable and clear.

-🡪 features need to interact again & again

When not to Automate:

-🡪 when the requirement is not clear or not stable

Advantage of Automation testing:

--🡪 Re-usability

-🡪 Save Time / Fast Execution

-🡪 Data -Driven testing

Types of testing conducted using Automation:

--🡪 Functional Testing

-🡪 Performance testing

-🡪 Regression Testing

-🡪 Security Testing

Types of testing not possible through Automation:

--🡪 Usability Testing

Types of Testing Tools:

1. Functional testing:

-🡪 it is used to check the functionality of the developed product.

--🡪 Selenium / RFT / UFT.

1. Performance:

-🡪 it is used to check the reliability of the product

-🡪 JMeter / Load runner /RPT

1. Regression Testing;

--🡪 All the functional testing tool support regression suite

1. Unit Testing:

--🡪 it is used for individual module validation.

Junit : for the java platform

NUnit: for .Net platform

1. Test Management tool:

-🡪 it is used to manage the testing activities from requirement to till deployment.

--🡪 Jira / ALM / RQM

Test Automation Life cycle:

1.Test Automation Basics:

-🡪 here you need to identify which object you need automation.

-🡪 importance of test automation

2. Test Tool selection:

-🡪 select the proper tool which fits your requirement

3. Tool Evaluation:

-🡪 type of tool which we selected

4. Testing Framework:

-🡪 every testing tool support diff test framework

1.Keyword Frame-work

2.Data driven Framework

3.Modular Framework

4.Hybrid Framework

5.Test Implementation

Selenium:

-🡪 it is an open source

-🡪 it is used for functional testing

-🡪 it is used to test web application only

-🡪 it has 4 different component

Why Selenium:

-🡪 open source

-🡪 platform independent

-🡪 cross browser testing

-🡪 Multi-language support

Selenium Components:

1. Selenium IDE:

-🡪 it is Recording tool

-🡪 it is used to capture the user activity and run the program accordingly.

-🡪 selenium IDE. Is a browser extension

-🡪 Record /playback Methodology.

1. Selenium Web driver:

-🡪 direct communication between user and browser.

1. Selenium RC:

-🡪 now days we are not using this component.

-🡪 it is used to communicate user and browser through the RC server.

1. Selenium Grid:

-🡪 it is used for cross-browser testing

-🡪 it is used for parallel test executions.

Web Element Identifications:

-🡪 it is used to identify the elements from the application

---.> common Elements:

1.TextBox

2.Button

3.RadioButton

4.Image

5.link

6.Dropdwon

7.checkbox

Locators:

-🡪 it is used to identify the web element form the web sites.

Types of locators:

1. Id
2. Name
3. Cssselectors
4. Xpath
5. Type
6. Classname

-🡪 using anyone of this locator we can able to identify the web element uniquely.

Assertions & Verification:

-🡪 it is used to check the response getting from the application.

Assertions:

-🡪 it is used to check the response from the server.

-🡪 it is used to compare the expected and actual

-🡪 if Assertion fails the testcase will be aborted

Verification:

-🡪 it is used to check the response from the server.

-🡪 it is used to compare the expected and actual

-🡪 if Verification fails still the rest of the steps will be executed

Elements added for Assertion & verification:

1.element present

2.Element not present

3.Element Editable

4.Element not Editable

5.Element selected

6.Element not selected

Selenium Web Driver: common Methods:

Get ()--🡪 it is used to open any web page[java]

Navigate()-🡪 it is used to open any web page[.Net]

Click()--🡪 it is used to submit or click any object

SendKeys(): --🡪 it is used to pass the inputs/ parameter

Close()--🡪 it is used to close the open browser.

Select()--🡪 it is used to select the values from the list

Identify the element / type of element / method or action

Handling Drop-Drown in selenium:

1.import or install Select UI Package

2.Identify the drop down and store as a web element

3.Select the values from the drop-down

Selenium WebDriver browser commands:

1.Get

Syntax:

Driver.get(“url”);

Or

String URL = “URL”;

Driver.get(URL);

2.Get Title():

--🡪 it is used to get the title of the page

Syntax:

Driver.getTitle(); [java]

Driver.Title; [C#]

3.Get URL:

--🡪 it is used to get and display the current url address

Syntax:

Driver.getCurrentUrl [java]

Driver.url[C#]

4.Get Page source:

-🡪 it is used to return current source code of the web page.

Syntax:

Driver.getPageSource();

5.Close():

-🡪 it is used to close the last opened window

6.Quit()

--🡪 it is used to close all the open window or browser.

Web driver Navigation commands:

1.Navigate ()

--🡪 it is used to open the url

Syntax:

Driver.Navigate()

2.Forward();

-🡪 it is used to click the forward button in the existing browser

Syntax:

Driver.Navigate().forward();

3.Back():

-🡪 it is used to go back to prvious page

Syntax:

Driver.Navigate().Back();

4.Refresh()

-🡪 it is used to refresh the current page.

Syntax:

Driver.Navigate()\_.refresh();

Web driver Web Element commands:

1.Clear():

-🡪 it is used to clear the previous data

2.Sendkeys()

-🡪 it is used to pass the input parameter

3.click()

-🡪 it is used to click some element.

4.isDisplayed()

-🡪 it is used to check whether the element is displayed in the web page.

5.isEnabled()

-🡪 it is used to check the element is enabled or not

6.isSelected()

-🡪 it is used to check whether user can select the element or not

7.Submit()

-🡪 it is used to send the request to appropriate server

8.GetText()

-🡪 it is used to get the text or string which present in the element.