

Manual testing:

Manual testing is the process of manually testing Softwares to rectify defects, it requires a tester to complete the task.

Automation Testing:

It is a process of stimulating ^{a set of} actions in the given system, using an Automation tool.

Help of test cases.

Need of Automation:

* It may results in human errors To overcome those defects we need automation. It is not a time consuming.

What to Automate:

The identical test cases that need to be executed using different browsers and that test have multiple data values for same action.

What Not to Automate:

Test cases may be executed once and it cannot be used for random testing * test cases that require manual intervention i.e. when the task is not possible to automate.

Advantages:

- * less execution time and effort
- * It is open source and does not affect cost.

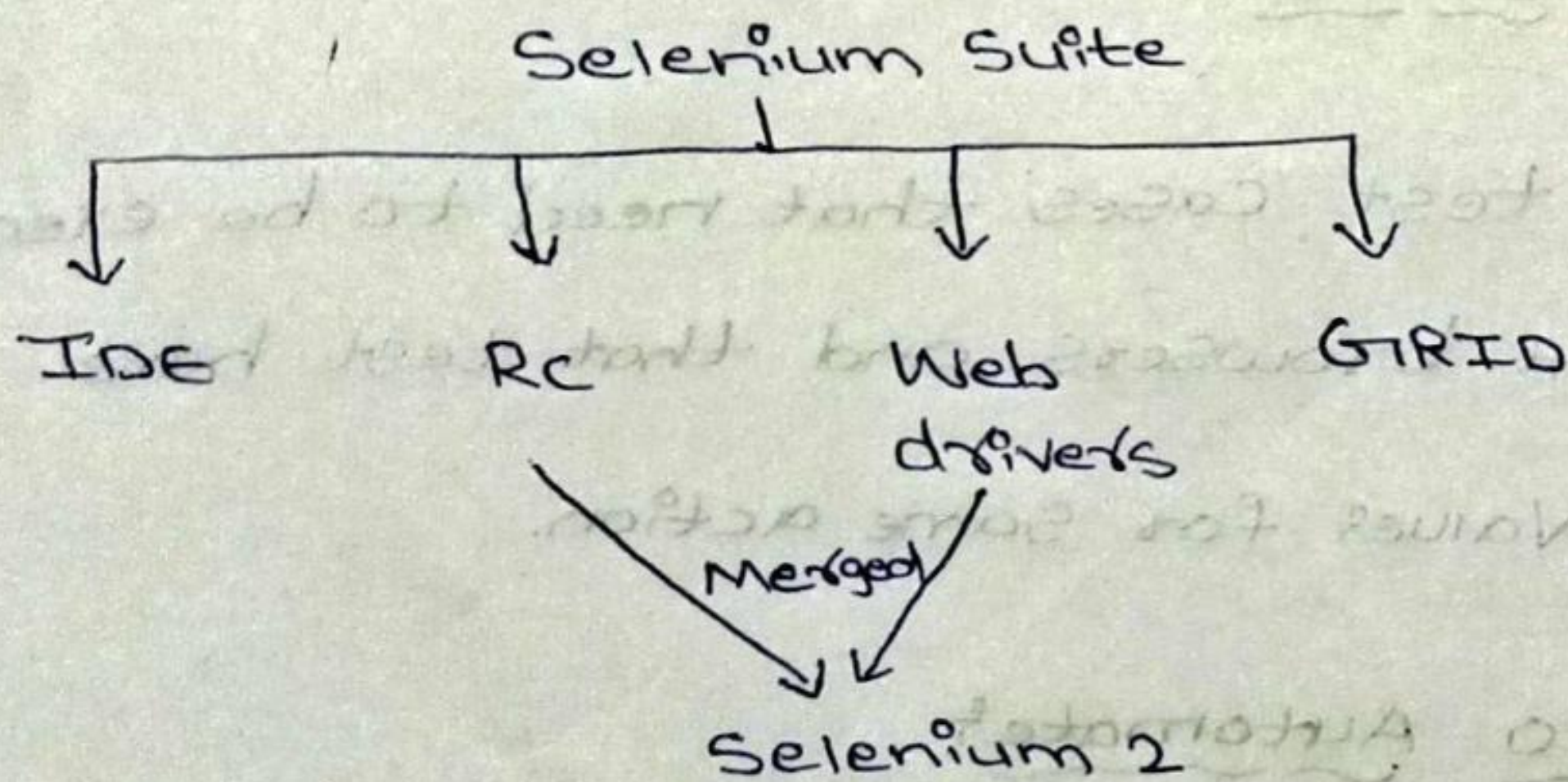
Selenium:

- * It is a free open source automated testing suite for web applications across different browsers and platforms.

Selenium Suite:

There are 4 components

- 1) Selenium IDE
- 2) Selenium RC (Remote Control)
- 3) Web Driver
- 4) Selenium GRID



Web browser Google Chrome

IDE JDK Eclipse

Selenium Server

Week - 1

- 1) Download Java Jdk Version
- 2) Download Selenium Server (Version of Selenium Server 4.5)

After Downloading Selenium Server don't run it

- 3) Chrome Driver Download

i) To check Chrome Driver Version

- 4) Download eclipse ide

i) After downloading eclipse, launch eclipse
Down Space

- 5) Create new project, After creating the project go to Selenium Server folder in downloads, do copy and comeback to the eclipse
right click below the new project, do paste.

Exp 7 ÷ Write a program using Web Driver to open CMRIT.

Steps

- 1) Set the path, Web Driver
- 2) Object of chrome
- 3) Maximize window
- 4) Assg URL
Thread (2000)
- 5) Web Element - CMRIT
- 6) Submit the text.

Source code ÷

Package EXAMPLES;

```
import org.openga.selenium.By;  
import org.openga.selenium.Keys;  
import org.openga.selenium.webdriver;  
import org.openga.selenium.chrome.ChromeDriver;
```

```
Public class Google Search - CMRIT {
```

```
public static void main (String[] args)  
throws InterruptedException
```

```
{
```

```
System.set property ("webdriver.chrome.driver",
```


"C:\Users\Students\Downloads\ChromeDriver
Win32\chromedriver.exe");

```
WebDriver driver = new ChromeDriver();  
driver.get("https://www.google.com/");  
driver.manage().window().maximize();  
Thread.sleep(2000);  
WebElement searchBox = driver.findElement(  
By.name("q"));  
searchBox.sendKeys("CMRIT");  
searchBox.sendKeys(Keys.ENTER);  
Thread.sleep(15000);  
driver.quit();  
}  
}
```


Aim ÷ Launch Mercury Tour Website

- a) click Register link to get Registration page
- b) click Submit.

Algorithm ÷

1. Write the test cases for each
2. Write test case to open google
3. Search for mercury tour Search
4. Click on Registration page for new registrations.
5. Write test Case to fill all fields
6. Click on Submit button
7. test case for close the Website if the new registration is Successful.

Source code ÷

Package CMRIT.CMRIT_Assignment

```
import org.openqa.selenium.*;  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.WebElement;  
import org.openqa.selenium.chrome.ChromeDriver;  
import org.openqa.selenium.interactions.Actions;  
Actions;
```

Public class Mercury Tour - Registration {

public static void main(String[] args)

throws InterruptedException

{


```
System.setProperty("webdriver.chrome.driver",  
"C:\\Users\\LENOVO\\Downloads\\chromedriver.exe");
```

```
WebDriver driver = new ChromeDriver();  
driver.manage().window().maximize();  
driver.get("https://www.mercurytravels.co.in/");
```

```
Thread.sleep(2000);
```

```
Actions builder = new Actions(driver);
```

```
WebElement customerLogin =
```

```
driver.findElement(By.xpath("(//a
```

```
[@class='drop-down-toggle']
```

```
-space()='customerLogin'][2]"));
```

```
builder.moveToElement(customerLogin).perform();
```

```
WebElement register = driver.findElement
```

```
(By.xpath("(//a[@href='#']
```

```
[normalize-space()='Register']
```

```
register).click();
```

```
Thread.sleep(2000);
```

```
WebElement firstName = driver.findElement
```

```
(By.xpath("(//input[@id='acc-first-name']
```

```
firstName.sendKeys("Vaibhav");
```

```
WebElement lastName = driver.findElement
```

```
(By.xpath("(//input[@id='acc-last-name']
```



```

last Name. Send Keys ("chadewar");

Web Element emailId = driver.findElement
(By.xpath("(//input[@id='acc-user-email-
password']"));

email. Send Keys ("chadewar vaibhav4@gmail.
com");

Web Element Set password = driver.findElement
(By.xpath("(//input[@id='acc-user-password']
"));

email Set password. Send Keys ("vaibhav2");

Web Element Mobile Number = driver.find
Element (By.xpath("(//input[@id='acc-mobile-
no']"));

Mobile number. Send Keys ("8978469122");

Web Element Register Btn = driver.find
Element (By.xpath("(//button[normalize-
space()='Register']"));

Register Btn. click ();
Thread.sleep(5000);
driver.close ();
}
}

```


Experiment - 3

Aim: Write a code to Search Specific month in the Facebook registration Page.

Algorithm:

Package CMRIT.CMRIT - Assignments

1. Search google website
2. Fetching Facebook page
3. Sending all details into required fields
4. click on login button
5. Exit from the page.

Source code:

Package CMRIT.CMRIT - Assignment;

```
import org.openqa.selenium.By;  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.WebElement;  
import org.openqa.selenium.chrome.ChromeDriver;  
import org.openqa.selenium.support.ui.Select;
```

```
public class Facebook {
```

```
    public static void main(String[]
```

```
args) throws InterruptedException
```

```
{
```

```
    System.setProperty("webdriver.chrome  
driver", "C:\\users\\LENOVO\\Downloads  
\\chrome driver.exe");
```



```
WebDriver driver = new ChromeDriver();  
driver.manage().window().maximize();  
driver.get("https://www.facebook.com/");  
Thread.sleep(2000);
```

```
WebElement createNewAccountButton =  
driver.findElement(By.xpath("(//a[contains-  
Space()='Create New Account'])[1]"));  
createNewAccountButton.click();  
Thread.sleep(5000);
```

```
WebElement firstName = driver.findElement  
(By.name("firstname"));  
firstName.sendKeys("Vaibhav");
```

```
WebElement surName = driver.findElement  
(By.name("lastname"));  
surName.sendKeys("Chadewar");
```

```
WebElement mobileNoOrEmailId = driver.findElement  
(By.name("reg_email_"));  
mobileNoOrEmailId.sendKeys("1234567890");
```

```
WebElement password = driver.findElement  
(By.name("reg_passwd_"));
```

```
password.sendKeys("123 Vaibhav");
```

```
Thread.sleep(2000);
```

```
Select date Dropdown = new
```

```
Select(driver.findElement(By.name("birthday-day"))
```

```
dateDropdown.selectByValue("10");
```

```
Thread.sleep(2000);
```

```
Select month dropdown = new
```



```
Select(driver.find Element(By.name("birthda  
month")));
```

```
month drop down. Select By value ("12");  
Thread. Sleep(2000);
```

```
Select year Drop down = new
```

```
Select(driver.find Element(By.name("birthday - ye  
Year drop down. Select By Value ("2001");
```

```
Thread. Sleep(2000);
```

```
Web Element male Radio btn = driver.find
```

```
Element(By.xpath("//label[contains - Spaces  
= 'Female'] [1]"));
```

```
female Radio btn.click();
```

```
Thread. Sleep(2000);
```

```
Web Element Sign up btn = driver.find
```

```
Element(By.name("we Submit"));
```

```
Sign up Btn. click();
```

```
Thread. Sleep(2000);
```

```
System.out.println("performed click  
action");
```

```
driver.quit();
```

```
}
```

```
}
```


Aim :- Write a program which pops out an alert message in frame in personal banking login page

Algorithm

1. Open banking Website
2. add key Value to map as follow to Switch off browser notification
3. After opening the banking website it gives one pop-up by using test case in our code.

Source code

```
public CMRIT_CMRIT_Assignment;  
  
import java.util. Hash Map;  
import java.util. map;  
  
import org. Openqa. Selenium. By;  
import org. Openqa. Selenium Web Driver;  
import org. Openqa. Selenium Web Element;  
import org. Openqa. Selenium. Chrome. Chrome Driver;  
import org. Openqa. Selenium. Chrome. Chrome Options;  
  
public class Banking — site Alert popup {  
  
    psvm(String[] args) throws Interrupted  
        Exception  
  
    {  
        Map <String, Object> prefs = new Hash Map<  
            String, Object> ();
```


Week -5

Aim:

Write a test code to search result section
on CMRIT Website

Algorithm:

1. Open google website
2. Search for CMRIT site
3. Take one official ID of any Student in CMRIT college
4. By using that ID we are accessing CMRIT website and giving the info to that student
5. It will be redirected to opening the results of that student.

Source code:

Package CMRIT CMRIT - Assignment;

```
import org.opengauss.selenium.By;  
import org.opengauss.selenium.Keys;  
import org.opengauss.selenium.WebDriver;  
import org.opengauss.selenium.WebElement;  
import org.opengauss.selenium.Chrome.ChromeDriver;  
import org.opengauss.selenium.interactions.Actions;
```

```
Public class CMRIT_Student Results {
```

```
    psvm (String[] args) throws InterruptedException
```

```
{
```

```
    System.set property ("webdriver.chrome driver", "C:\\Users\\  
LENOVO\\Downloads\\chromedriver.exe");
```



```

Web Driver driver = new Chrome Driver ();
driver.manage ( ). window ( ). maximize ( );
driver.get ( "https:// www. google. com /" );
Thread. Sleep ( 2000 );
Web Element Search bar = driver. find Element
( By. name ( "q" ) );
Search Bar. send Keys ( "CMRIT" );
Search Bar. send Keys ( Keys. ENTER );
Web Element cmrit link = driver. find Element
( By. xpath ( "( // h3 [ contains ( text ( ), home -
CMR INSTITUTE OF TECHNOLOGY, Hyderabad, Tel
[ 1 ] ) ) );
cmrit link. click ( );
Thread. Sleep ( 3000 );
Actions builder = new Actions ( driver );
Web Element student = driver. find Element ( By. xpath
( "( // html [ 1 ] / body [ 1 ] / div [ 1 ] / div [ 1 ] ( section [ 3 ] / div [ 1 ]
div [ 1 ] / div [ 1 ] / div [ 1 ] / nav [ 1 ] / ul [ 1 ] / li [ 1 ] / a [ 1 ]
builder. move To Element ( student ). perform (
student. click ( );
Thread. Sleep ( 2000 );
Web Element student login = driver. find Element
( By. xpath ( "( // input [ 1 ] / html [ 1 ] / body [ 1 ] / div [ 1 ] / div
[ section [ 3 ] / div [ 1 ] / div [ 1 ] / div [ 1 ] / div [ 1 ] / nav [ 1 ]
ul [ 1 ] / li [ 1 ] / ul [ 1 ] / li [ 1 ] / a [ 1 ] ) );
student. login click ( );
Web Element user Name = driver. find Element
( By. xpath ( "( // input [ 1 ] / id = ( txtUserName ) " );
Thread. Sleep ( 2000 );
user Name. send Keys ( "20R01A6610P11" );

```



```
WebElement nextBtn = driver.findElement
```

```
(By.Name("btnNext"));
```

```
nextBtn.click();
```

```
WebElement password = driver.findElement
```

```
(By.XPath("(//input[@placeholder = 'Enter password']  
[1]))");
```

```
password.sendKeys("20R01AG610P");
```

```
WebElement Submit = driver.findElement
```

```
(By.XPath("(//input[@name = 'btn Submit'])[1]"));
```

```
}
```

```
}
```