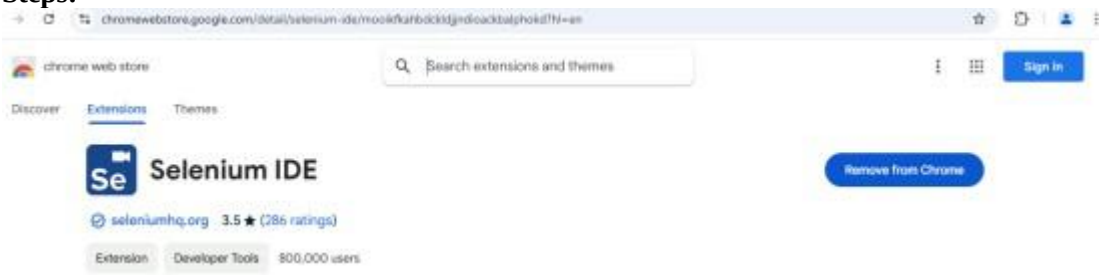
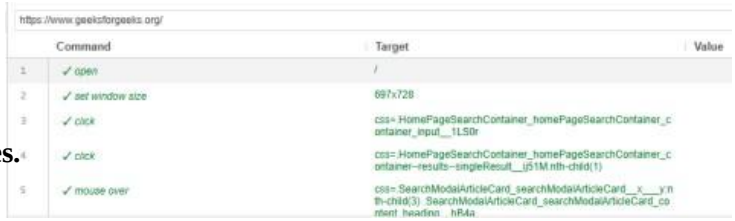
Q.1] Install Selenium IDE.

Steps:



1) Create a Project.
2) Create a Test.
3) Surf any website url
4) record



A] Conduct a test suite for any two web sites.

➔ Steps recorded by selenium IDE

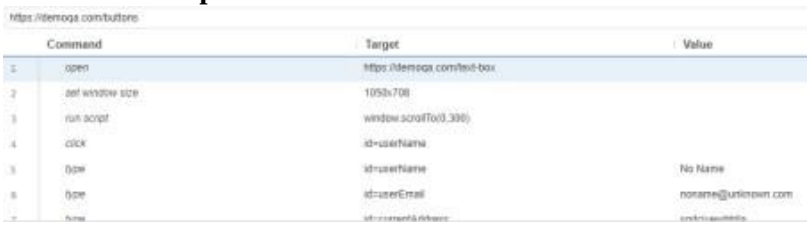
➔ Logs of Testing.

B] Write a test suite containing minimum 4 test cases for different formats.

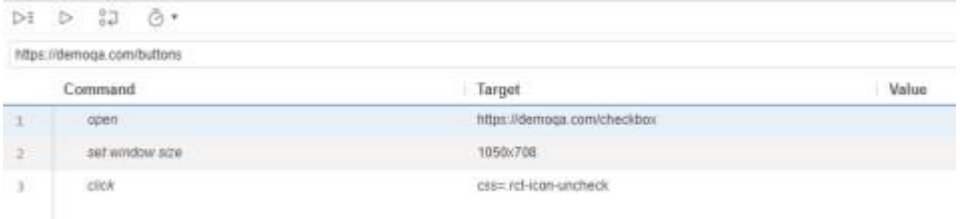
Steps:

1) Create many test suite.
2) Record tests.
3) Add/group required tests to the test suite.
4) View the test suite.

Test 1 – Text Input



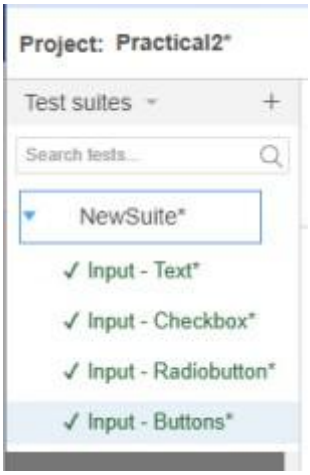
Test 2 – Checkbox



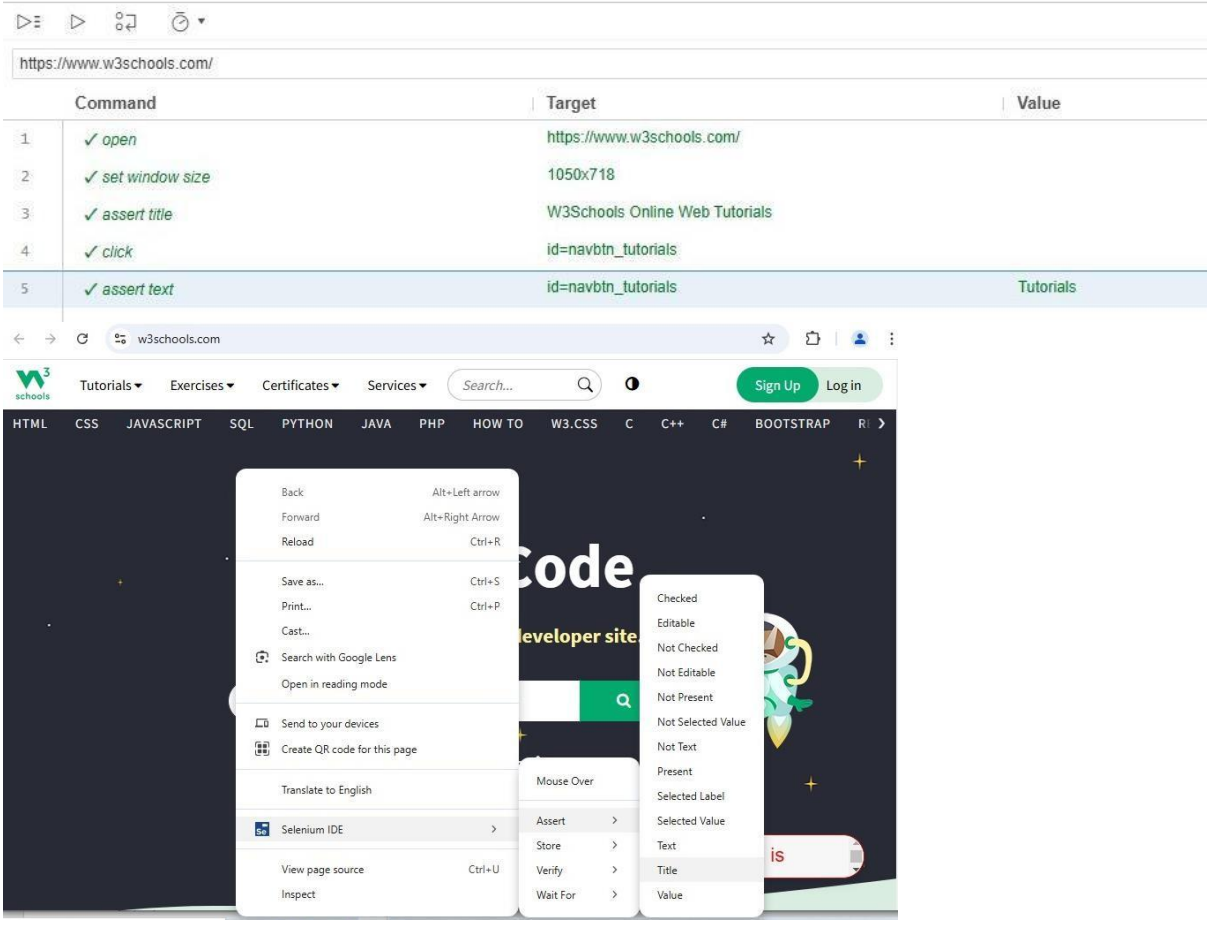
Test 3 – Radio Button

Test 4 – Button

Test Suite Result



C] Asserting tools of Selenium IDE.



A] Trying a Successful Test.

```
package set.prac;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.remote.DesiredCapabilities;
public class SETPrac {
† static String driver_path = "C:\\Users\\LAB2-PC05\\Desktop\\SYCS55\\geckodriver-v0.35.0-win64\\geckodriver.exe";
   public static WebDriver driver;
   public static void main(String[] args) {
      System.out.println("Testing the Title");
      System.setProperty("webdriver.gecko.driver", driver_path);
      DesiredCapabilities cap = DesiredCapabilities.firefox();
      driver = new FirefoxDriver(cap);
      driver.get("https://www.google.com");
      String desiredTitle = "Google";
      String actualTitle = driver.getTitle();
      if (actualTitle.contentEquals(desiredTitle))
         System.out.println("Same Titles...!");
         else
         System.out.println("Different Titles...!");
      driver.manage().window().maximize();}}
```

```
Same Titles...! Test Successfull.
BUILD SUCCESSFUL (total time: 12 seconds)
```

B] Trying an unsuccessful test. (Only modified lines)

```
String desiredTitle = "Ggle";
```

```
Different Titles...! Test Failed.
BUILD SUCCESSFUL (total time: 11 seconds)
```

C] With 'FireFoxOption' class. (Since DesiredCapabilities class is depriciated)

```
package set.prac;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.firefox.FirefoxOptions;
public class SETPrac {
† static String driver_path = "C:\\Users\\LAB2-PC05\\Desktop\\SYCS55\\geckodriver-v0.35.0-win64\\geckodriver.exe";
   public static WebDriver driver;
   public static void main(String[] args) {
      System.out.println("Testing the Title");
      System.setProperty("webdriver.gecko.driver", driver_path);
      FirefoxOptions fox = new FirefoxOptions();
      driver = new FirefoxDriver(fox);
      driver.get("https://www.google.com");
      String desiredTitle = "Google";
      String actualTitle = driver.getTitle();
      if (actualTitle.contentEquals(desiredTitle))
        System.out.println("Same Titles...! Test Successfull.");
        else
          System.out.println("Different Titles...! Test Failed.");
      driver.manage().window().maximize();
   }
}
```

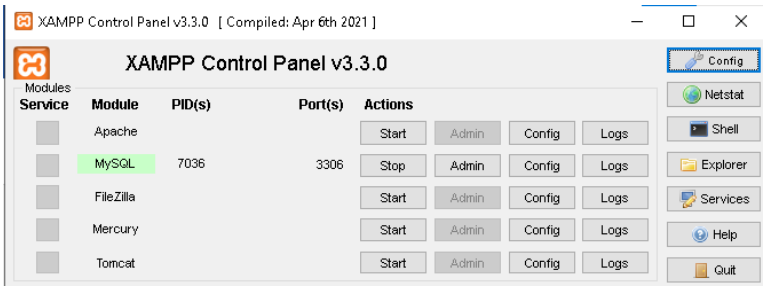
```
Same Titles...! Test Successfull.
BUILD SUCCESSFUL (total time: 12 seconds)
```

HTML Form:

```
<html>
<head>
<title>Login Form</title>
</head>
<body>
<form method="get" action="formValidate.php">
        Username: <input type="text" name="username">
        Password: <input type="password" name="password">
        <input id="submit" type="submit" name="submit" value="Submit">
</form>
</body>
</html>
```

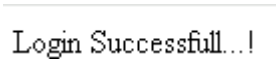
Php Code:

```
<?php
$username  = $_GET["username"];
$password = $_GET["password"];
if ($username == "Naruto" && $password == "1234") {
        echo "Login Successfull...!";
} else {
        echo "Login Failed...!";
}
?>
```

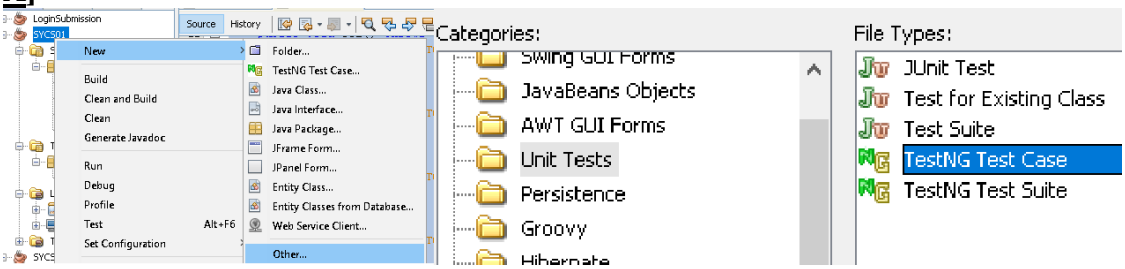


Java Code:

```
package sycs01;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.firefox.FirefoxOptions;
public class SYCS55 {
† static String path= "C:\\Users\\LAB2-PC02\\Desktop\\SYCS55\\libs\\geckodriver-v0.35.0-win64\\geckodriver.exe";
   public static WebDriver driver;
   public static void main(String[] args) {
      System.setProperty("webdriver.gecko.driver", path);
      FirefoxOptions fox = new FirefoxOptions();
      driver = new FirefoxDriver(fox);
      driver.get("http://localhost/SYCS/LoginForm.html");
      driver.manage().window().maximize();
      driver.findElement(By.name("username")).sendKeys("Naruto");
      driver.findElement(By.name("password")).sendKeys("1234");
      driver.findElement(By.name("submit")).click();
   }
}
# Failed Attempt
      driver.findElement(By.name("username")).sendKeys("Unknown");
      driver.findElement(By.name("password")).sendKeys("12345");
```

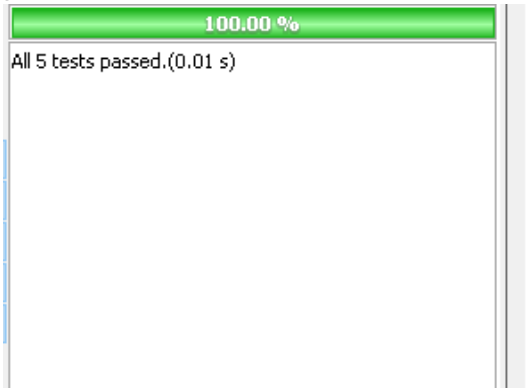


A]



Java → TestNG code

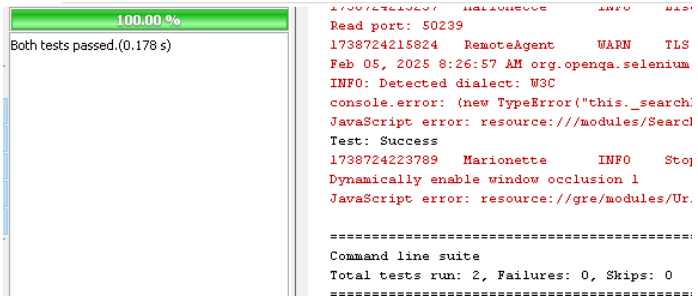
```
package tests;
import org.testng.annotations.Test;
public class Test01 {
    @Test
    public void T01() throws Exception {
        System.out.println("T01 -> Test One...!");
    }
    @Test(description = "This Test uses an Attribute Description")
    public void T02() throws Exception {
        System.out.println("T02 -> Test with a description...!");
    }
    @Test(priority = 2)
    public void T03() throws Exception {
        System.out.println("T03 -> It has priority 2 but written before T04...!");
    }
    @Test(priority = 1)
    public void T04() throws Exception {
        System.out.println("T04 -> It has priority 1 but written after T03...!");
    }
    @Test(enabled = true)
    public void T05() throws Exception {
        System.out.println("T05 -> This has an Attribute enabled = true...!");
    }
    @Test(enabled = false)
    public void T06() throws Exception {
        System.out.println("T06 -> This has an Attribute enabled = false...!");
    }
}
```




```
[TestNG] Running:
  Command line suite

T01 -> Test One...!
T02 -> Test with a description...!
T05 -> This has an Attribute enabled = true...!
T04 -> It has priority 1 but written after T03...!
T03 -> It has priority 2 but written before T04...!

===============================================
Command line suite
Total tests run: 5, Failures: 0, Skips: 0
===============================================
```

B]
Code:

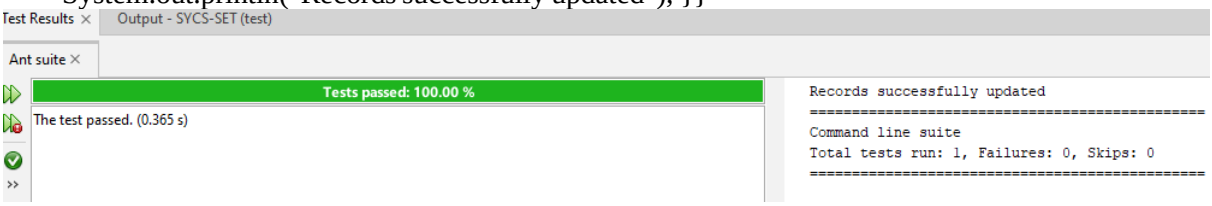
```
package tests;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.firefox.FirefoxOptions;
import org.testng.Assert;
import static org.testng.Assert.*;
import org.testng.annotations.AfterTest;
import org.testng.annotations.BeforeTest;
import org.testng.annotations.Test;
public class Test02 {
   public static String driverpath = "C:\\Users\\LAB2-
PC02\\Desktop\\SYCS01\\libs\\geckodriver.exe";
   public static WebDriver driver;
   @BeforeTest
   public void launchBrowser() {
      System.setProperty("webdriver.gecko.driver", driverpath);
      FirefoxOptions fox = new FirefoxOptions();
      driver = new FirefoxDriver(fox);
      driver.get("https://google.com");
      driver.manage().window().maximize();
   }
   @Test
   public void actualTest() {
      String desiredTitle = "Google";
      String actualTitle = driver.getTitle();
      Assert.assertEquals(desiredTitle, actualTitle);
   }
   @Test
   public void testExists() {
      if (driver.getPageSource().contains("Google"))
         System.out.println("Test: Success");
      else
         System.out.println("Test: Failure");
   }
   @AfterTest
   public void closeProgram() {
      driver.close();
   }
}
```



C]

```
package tests;
import org.testng.annotations.Test;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import jxl.Sheet;
import jxl.Workbook;
import jxl.write.Label;
import jxl.write.WritableSheet;
import jxl.write.WritableWorkbook;
public class ExcelTest {
   @Test
```

```
public void ActualTest() throws Exception {
    FileInputStream fi = new FileInputStream("E:\\Marksheet.xls");
    Workbook w = Workbook.getWorkbook(fi);
    Sheet s = w.getSheet(0);
    String a[][] = new String[s.getRows()][s.getColumns()];
    FileOutputStream fo = new FileOutputStream("E:\\Marksheet.xls");
    WritableWorkbook wwb = Workbook.createWorkbook(fo);
    WritableSheet ws = wwb.createSheet("Sheet1", 0);
    Label newlable = new Label(6, 0, "Result");
    ws.addCell(newlable);
    for (int i = 0; i < s.getRows(); i++) {
      for (int j = 0; j < s.getColumns(); j++) {
        a[i][j] = s.getCell(j, i).getContents();
        Label l2 = new Label(j, i, a[i][j]);
        ws.addCell(l2);  }}
    for (int i = 1; i < s.getRows(); i++) {
      for (int j = 2; j < s.getColumns(); j++) {
        a[i][j] = s.getCell(j, i).getContents();
        int x;
        try {
          x = Integer.parseInt(a[i][j]);
          if (x > 60) {
            Label l1 = new Label(6, i, "Eligible");
            ws.addCell(l1);
          } else {
            Label l1 = new Label(6, i, "Not Eligible");
            ws.addCell(l1);
            break;  }} catch (NumberFormatException e) {}}}
    wwb.write();
    wwb.close();
    w.close();
    System.out.println("Records successfully updated"); }}
```



Before:

RollNo	Name	English	Maths	Science	EVS	Result
1	Abc	96	98	95	94	
2	Xyz	89	87	42	48	
3	Pqr	45	75	35	54	
4	Mno	35	18	48	75	
5	Efg	73	75	84	70	

After:

RollNo	Name	English	Maths	Science	EVS	Result
1	Abc	96	98	95	94	Eligible
2	Xyz	89	87	42	48	Not Eligible
3	Pqr	45	75	35	54	Not Eligible
4	Mno	35	18	48	75	Not Eligible
5	Efg	73	75	84	70	Eligible

HTML:

```
<a href="https://www.google.com">Google</a><br><br>
<a href="https://www.youtube.com">YouTube</a><br><br>
<a href="https://www.facebook.com">Facebook</a><br><br>
```

Google

YouTube

Facebook

Java Code:

```
package sycs01;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.By;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.remote.DesiredCapabilities;
import java.util.List;
public class Practical04 {
   public static WebDriver driver;
   static String path= "C:\\Users\\LAB2-PC02\\Desktop\\SYCS01\\libs\\geckodriver-v0.35.0-
win64\\geckodriver.exe";
   public static void main (String args[]) {
      System.setProperty("webdriver.gecko.driver",path);
      DesiredCapabilities cap = DesiredCapabilities.firefox();
      cap.setCapability("marionette", true);
      driver = new FirefoxDriver(cap);
      driver.get("http://localhost/sycs/links.html");
      driver.manage().window().maximize();
      List<WebElement> links = driver.findElements(By.tagName("a"));
      System.out.println("Total number of Links: "+links.size());
      System.out.println("Names of links are: ");
      for (int i=0 ; i<links.size() ; i++) {
         System.out.println((i+1)+": "+links.get(i).getText());}}
}
```

```
Total number of Links: 3
Names of links are:
1: Google
2: YouTube
3: Facebook
BUILD SUCCESSFUL (total time: 6 seconds)
```

Google

YouTube

Facebook

5B : Dropdown

HTML CODE

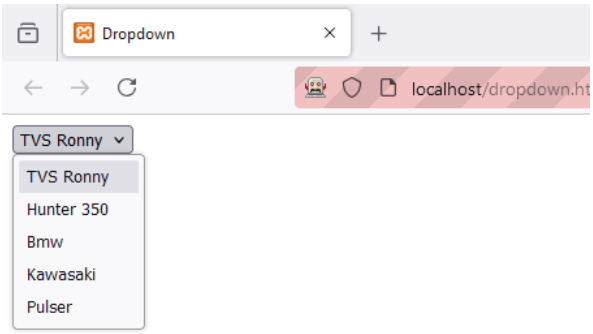
```
<!doctype html>
<html>
<head><title>Dropdown</title></head>
<body>
<form>
<select name="Bikes" id="Bikes">
<option value="TVS">TVS Ronny</option>
<option value="Royal">Hunter 350</option>
<option value="bmw">Bmw</option>
<option value="kawasaki">Kawasaki</option>
<option value="pulser">Pulser</option>
</select>
</form>
</html>
</body>
```

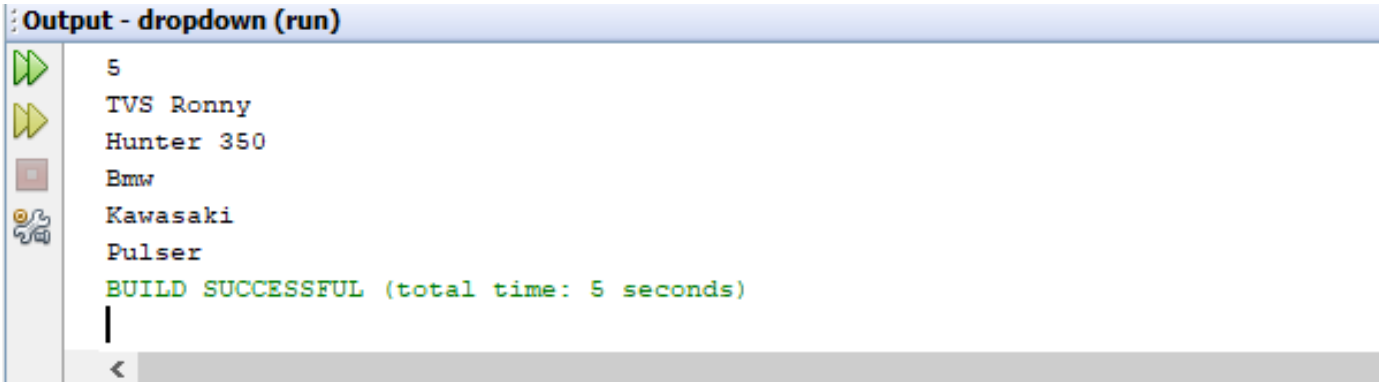
Netbeans Code

```
package dropdown;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.firefox.FirefoxOptions;
import java.util.List;

public class Dropdown {
   static String driverPath="C:\\Users\\LAB1-PC23\\Desktop\\SYCS55\\geckodriver.exe";
   public static WebDriver driver;

   public static void main(String[] args) {
      System.setProperty("webdriver.gecko.driver", driverPath);

      FirefoxOptions options=new FirefoxOptions();
      driver=new FirefoxDriver(options);
      driver.get("http://localhost:80/dropdown.html");
      driver.manage().window().maximize();

      List<WebElement> objs=driver.findElements(By.xpath("//select/option"));
      System.out.println(objs.size());
```

```
        for(int i=0;i<objs.size();i++){
            WebElement obj=objs.get(i);
            System.out.println(obj.getText());
        }

    }

}
```

OUTPUT





5C:CheckBox

Html code

```
<!doctype html>
<html>
<head><title>Checkbox</title></head>

<body>
<form>
<input type="checkbox">Ronaldo<br>
<input type="checkbox">Messi<br>
<input type="checkbox">Mbappe<br>
<input type="checkbox">Neymar<br>
```

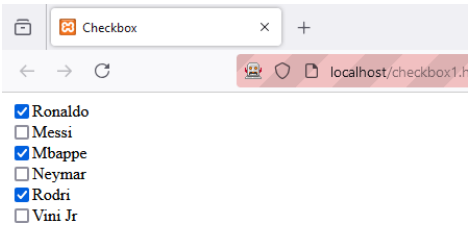
```
<input type="checkbox">Rodri<br>
<input type="checkbox">Vini Jr<br>
</form>
</html>
```

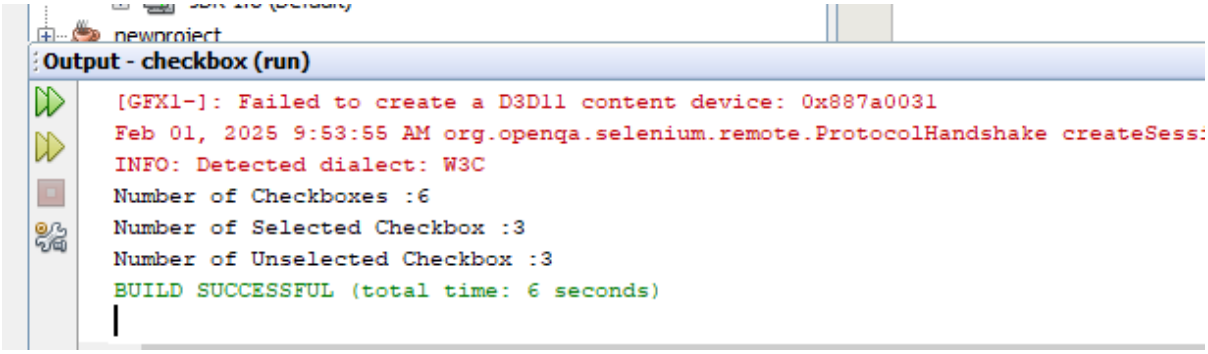
NETBEANS:

```
package checkbox;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.firefox.FirefoxOptions;
import java.util.List;

public class Checkbox {
   static String driverPath="C:\\Users\\LAB1-PC23\\Desktop\\SYCS55\\geckodriver.exe";
   public static WebDriver driver;
    public static void main(String[] args) {
      int selected=0;
      int unselected=0;

      System.setProperty("webdriver.gecko.driver", driverPath);

      FirefoxOptions options =new FirefoxOptions();
      driver=new FirefoxDriver(options);
      driver.get("http://localhost/checkbox1.html");
      driver.manage().window().maximize();

      List<WebElement>checks=driver.findElements(By.xpath("//input[@type='checkbox']"));
      System.out.println("Number of Checkboxes :"+checks.size());
      for(int i=0;i<checks.size(); i+=2){
         checks.get(i).click();
      }
      for(int i=0;i<checks.size();i++){
         if(checks.get(i).isSelected()){
            selected++;
         }
      }
      unselected=checks.size()-selected;

      System.out.println("Number of Selected Checkbox :"+selected);
```

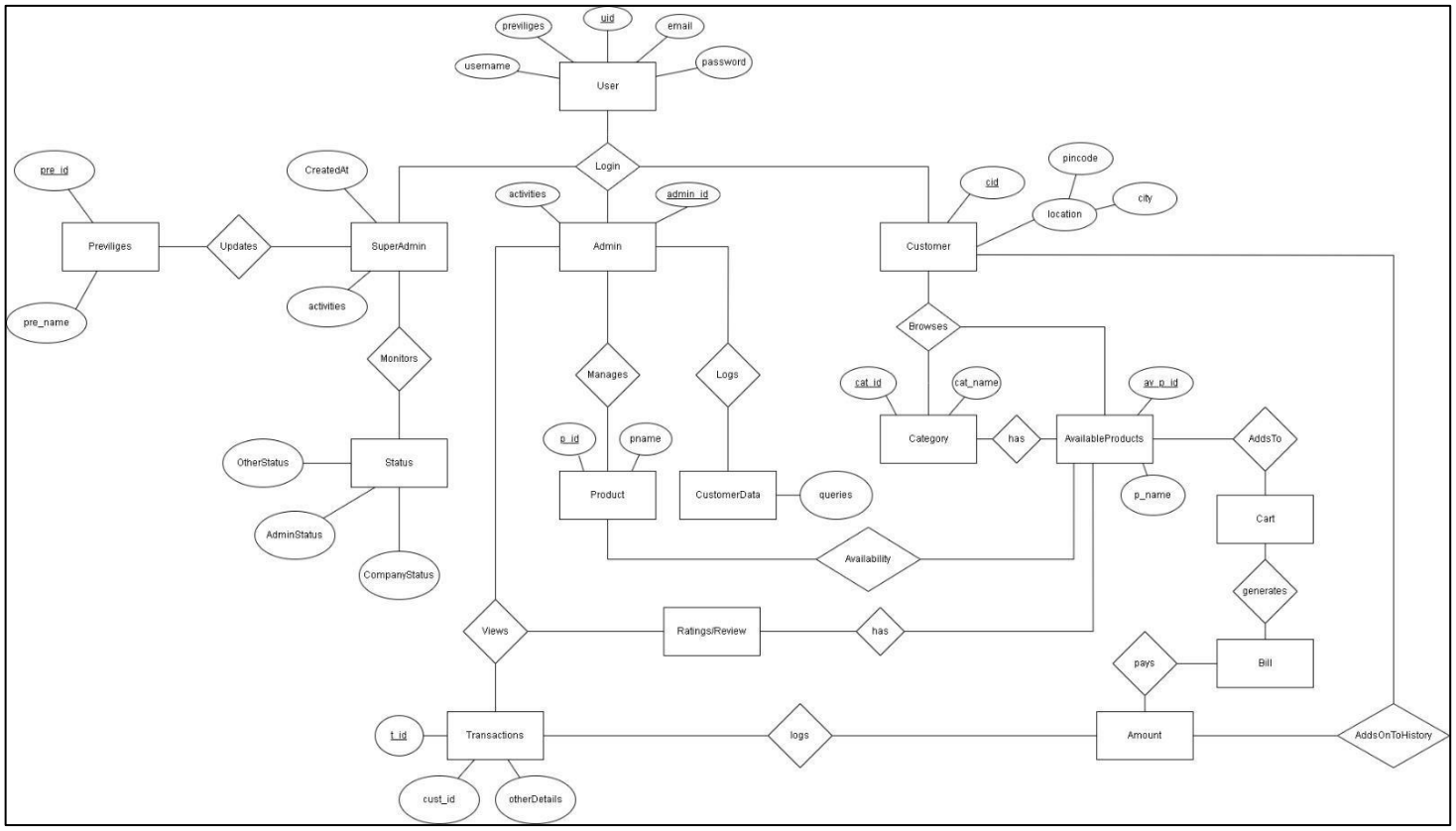
```
        System.out.println("Number of Unselected Checkbox :"+unselected);

    }

}
```

OUTPUT

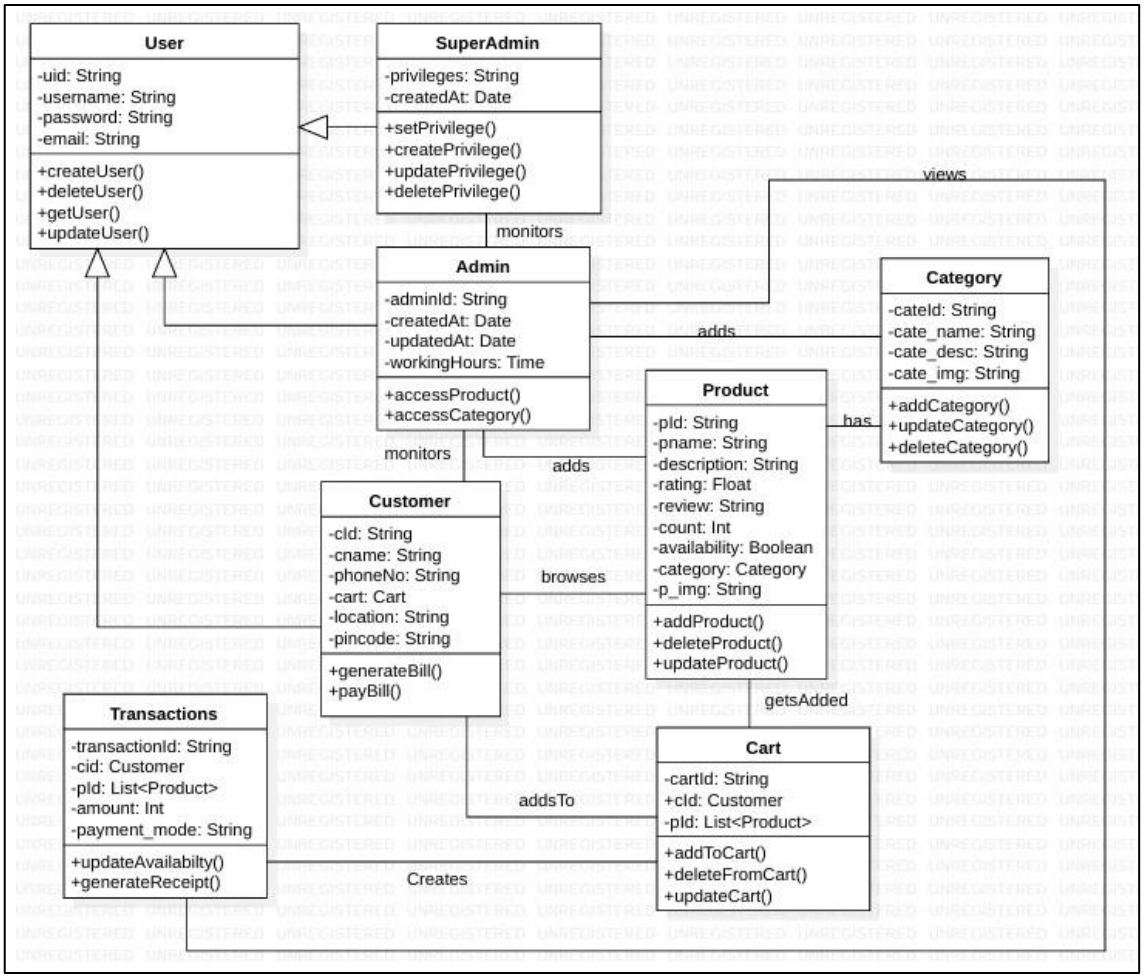




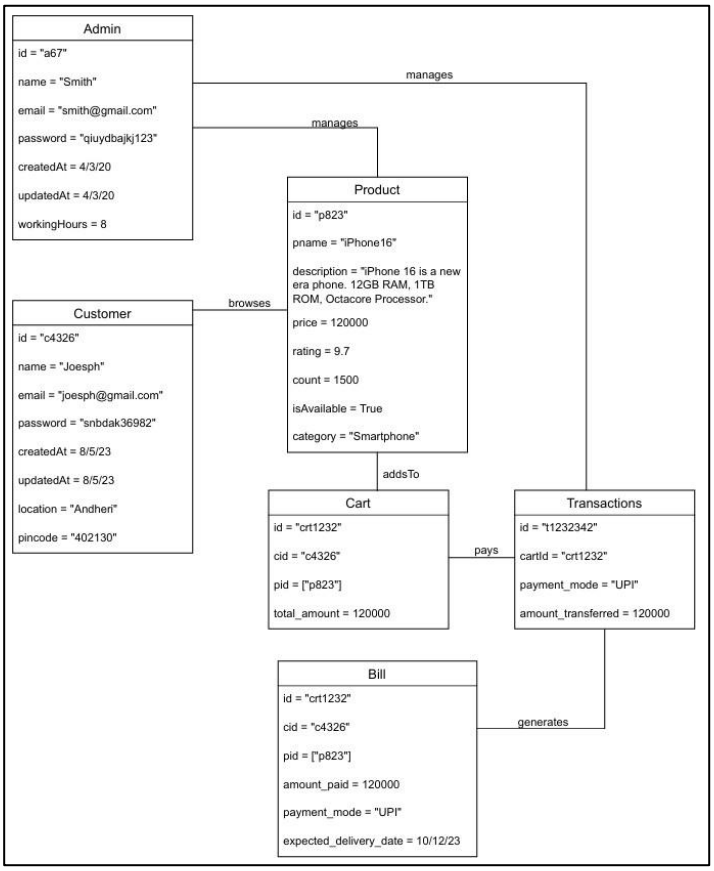
ER Diagram: E-Commerce



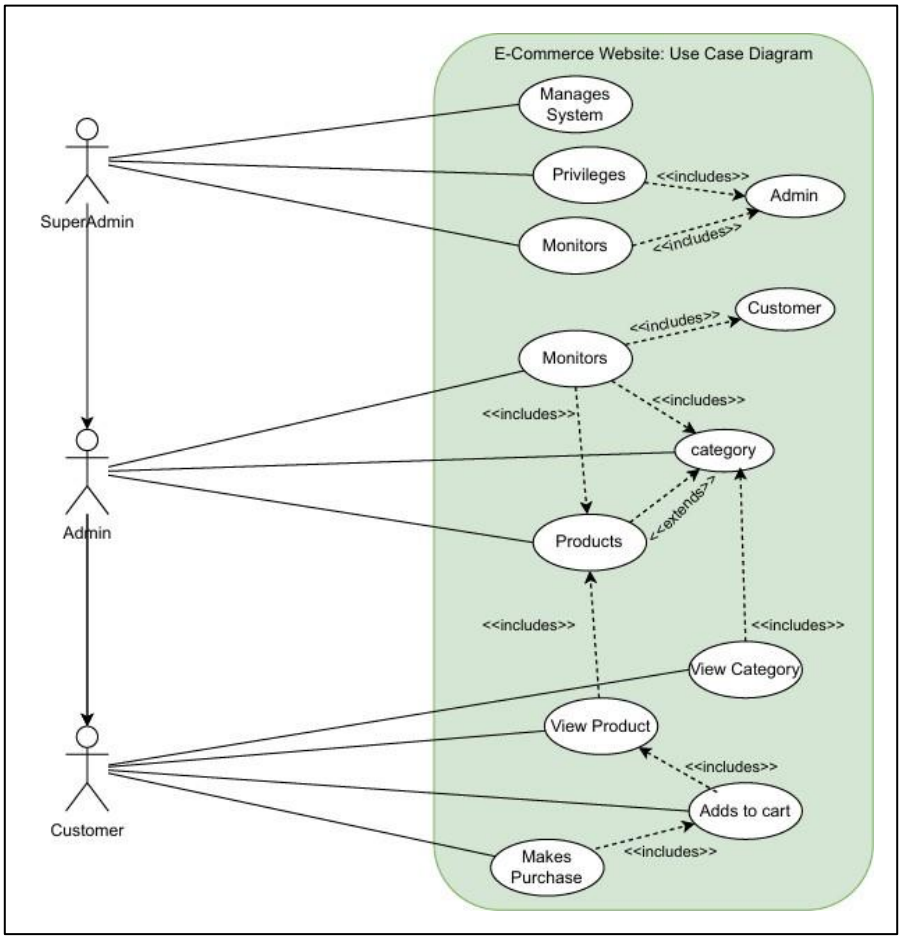
Class Diagram: E-Commerce



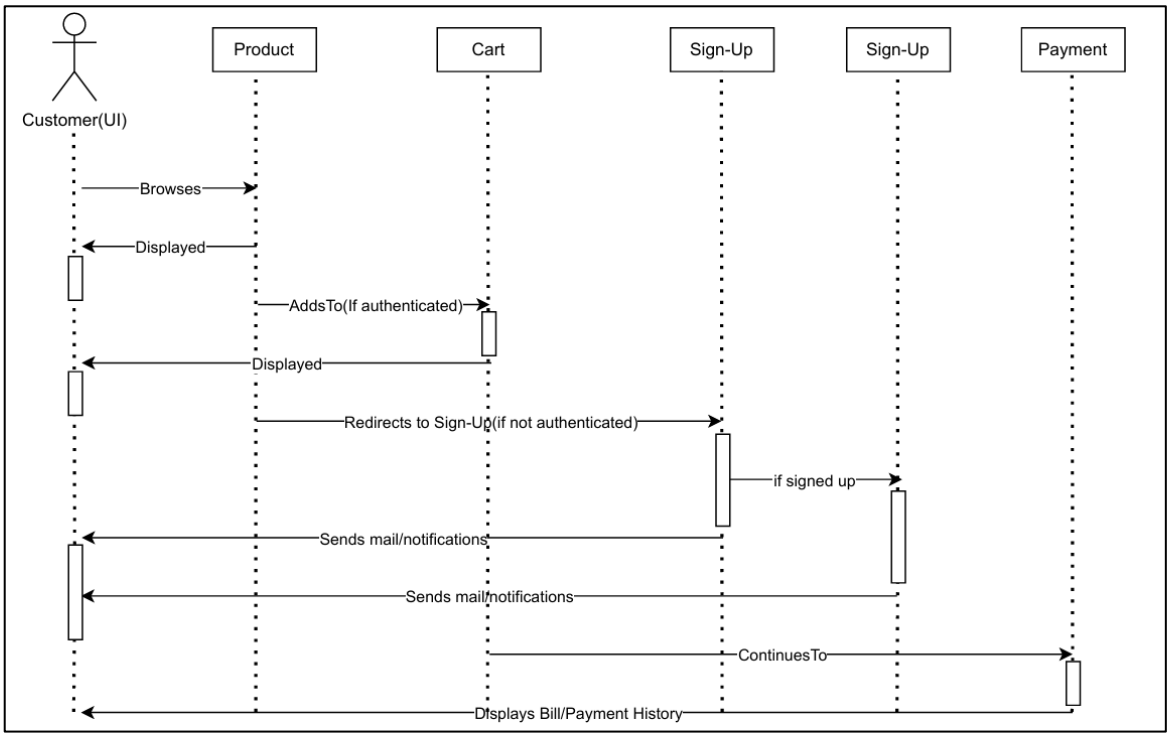
Object Diagram: E-Commerce



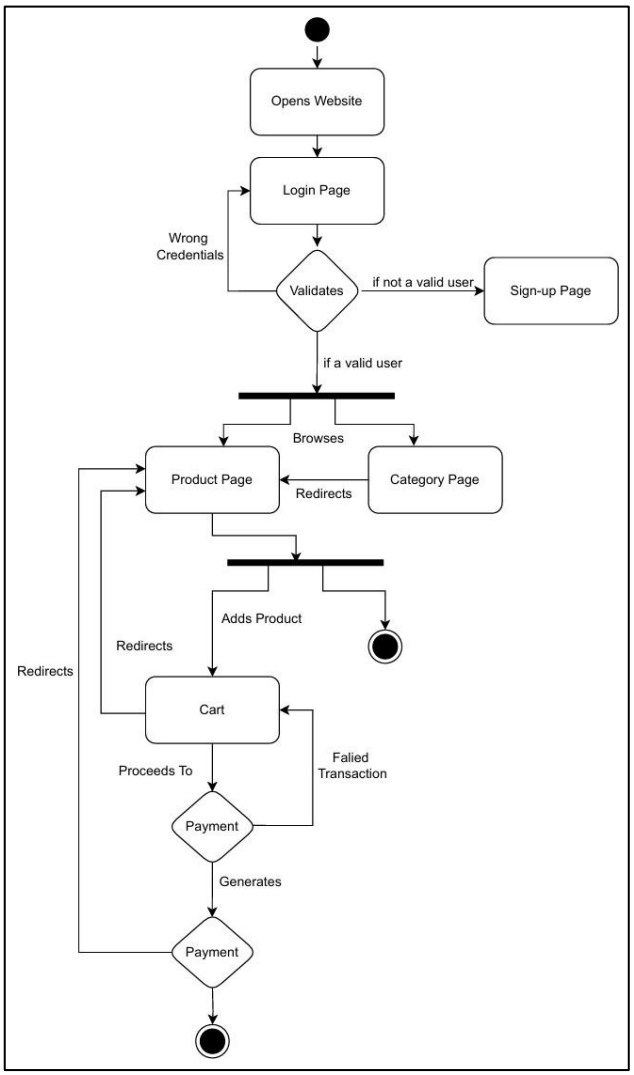
Use Case Diagram: E-Commerce



Sequence Diagram: E-Commerce



Activity Diagram: E-Commerce



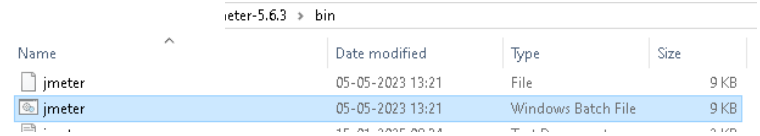
JMeter Installation:

Apache JMeter 5.6.3 (Requires Java 8+)

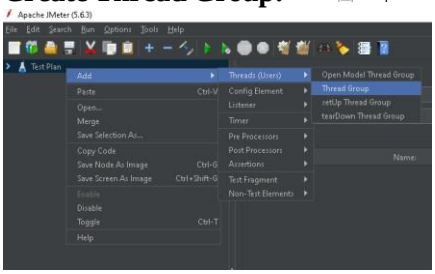
Binaries¶

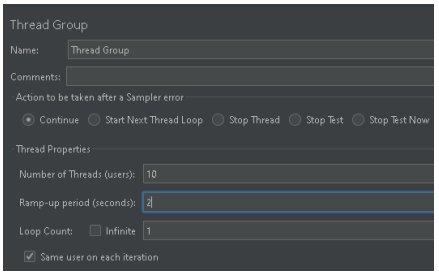
apache-jmeter-5.6.3.tgz sha512 pgp
apache-jmeter-5.6.3.zip sha512 pgp

Opening:

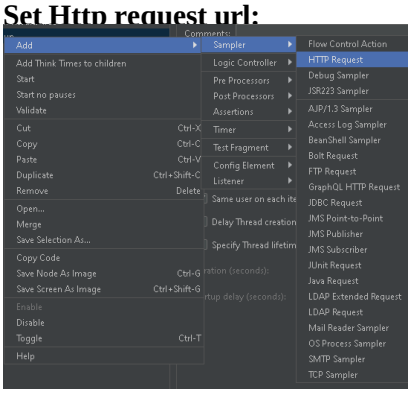


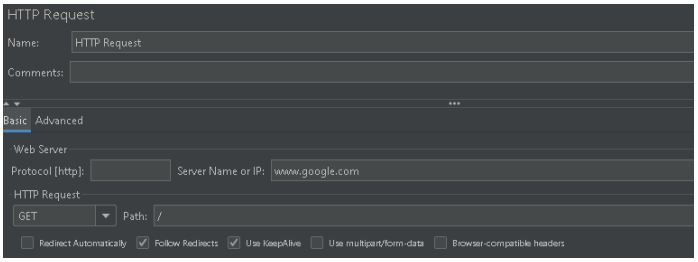
Create Thread Group:





Set Http request url:





Visualize: