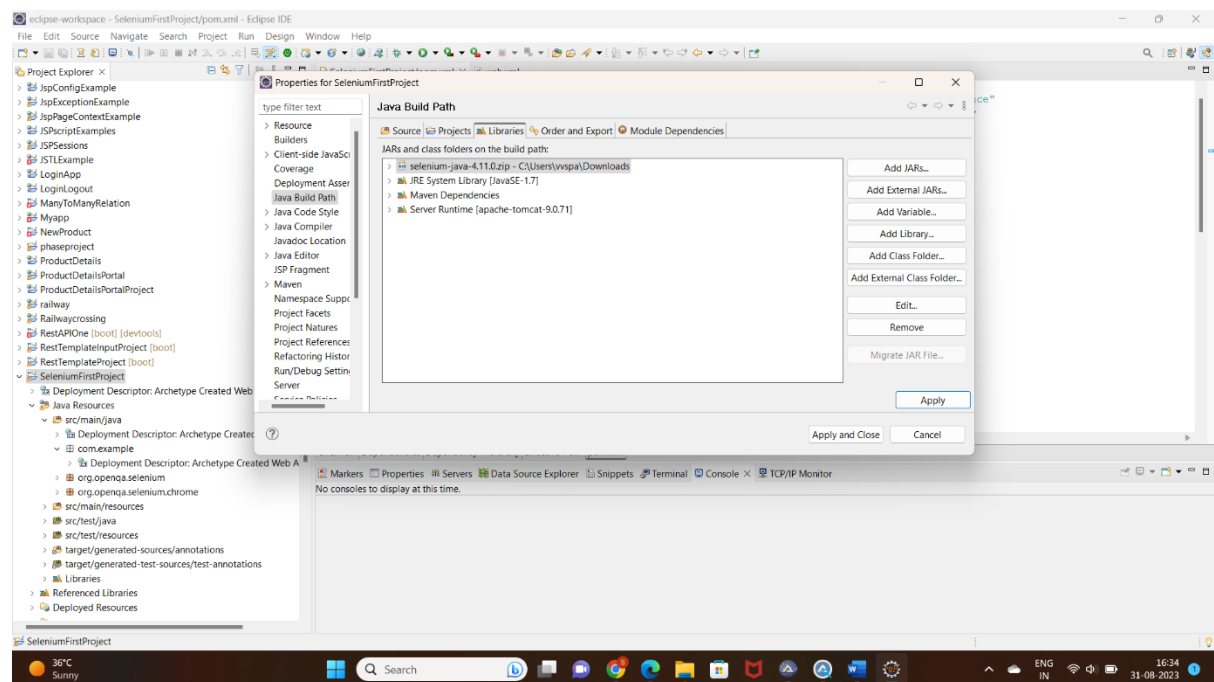
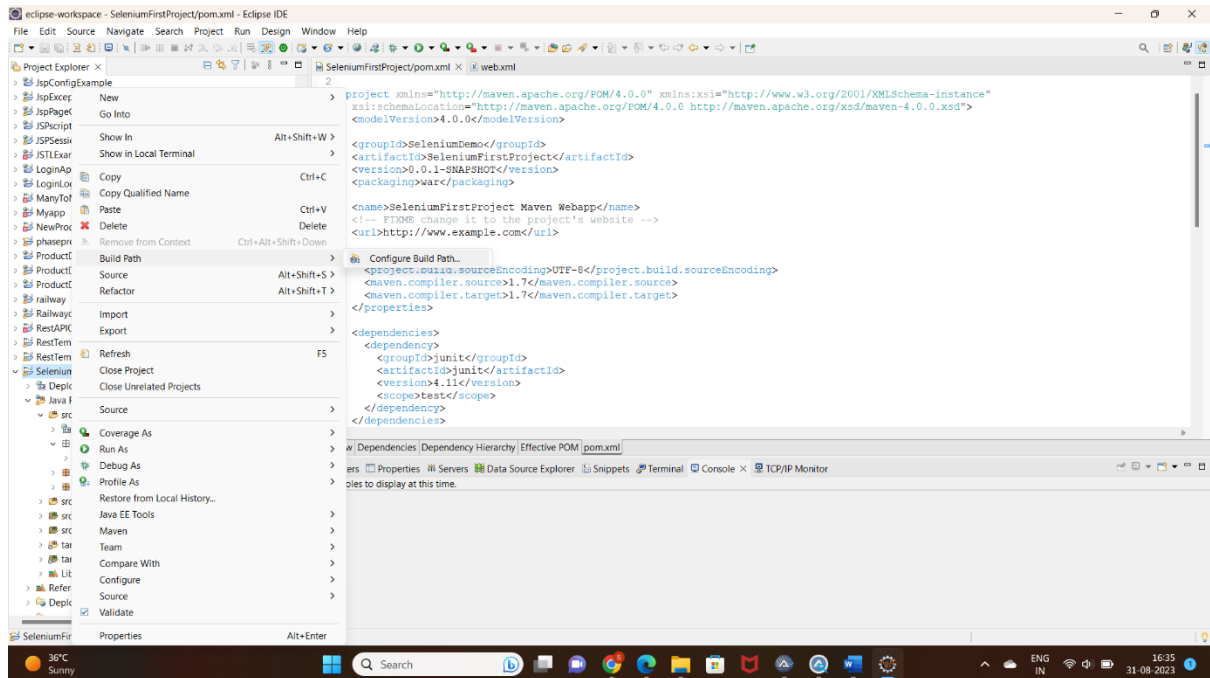


Assisted Practice Project1-

Problem 1



Problem 2

```
package com.ecommerce.test;
```

```
import org.openqa.selenium.*;  
import org.openqa.selenium.chrome.ChromeDriver;
```

```

import org.openqa.selenium.support.ui.Select;
//import org.openqa.selenium.firefox.FirefoxDriver;

public class LocateElementsDemo {

    public static void main(String[] args) throws InterruptedException {
        // Basic configuration
        WebDriver driver = new ChromeDriver();

        // Demo for locating TextFeild, Button, Select
        // using id, name and className, xpath
        // googleAccCreation(driver);

        /* Demo locating Select and Radio Elements*/
        facebookAccCreation(driver);
    }

    /* Automate Select and Radio Elements*/
    public static void facebookAccCreation(WebDriver driver) throws
    InterruptedException {
        String baseUrl =
        "https://www.facebook.com/r.php?locale=en_GB&display=page";

        driver.get(baseUrl);

        //The Day Dropdown
        /*[@id="day"]

        ///html/body/div[1]/div[1]/div[1]/div[2]/div/div[2]/div/div/div[1]/fo
        rm/div[1]/div[5]/div[2]/span/span/select[1]

        String fullXPathOfDayDropDown =

        "/html/body/div[1]/div[1]/div[1]/div[2]/div/div[2]/div/div/div[1]/for
        m/div[1]/div[5]/div[2]/span/span/select[1]";
        WebElement dayDropDown =
        driver.findElement(By.xpath(fullXPathOfDayDropDown));

        Select select = new Select(dayDropDown);
        select.selectByVisibleText("11");

        // TRY THIS - Locate the month and year

        // Locate the Gender and set it to M/F/C
        //
        WebElement gender=
        driver.findElement(By.xpath("/html/body/div[1]/div[1]/div[1]/div[2]/div/div
        [2]/div/div/div[1]/form/div[1]/div[7]/span/span[2]/input"));
        //
        gender.click();

        //WebElement gender=
        driver.findElement(By.cssSelector("#u_0_5_eQ")); // NOT WORKING, because id
        are dynamically generated
        WebElement gender= driver.findElement(By.cssSelector("span >
        span > input[type='radio'][value='1']"));
        gender.click(); // selects Female

        //Locating image by its tag names
        WebElement fbLogoImage = driver.findElement(By.tagName("img"));
        System.out.println("FB Logo src is
        "+fbLogoImage.getAttribute("src"));
    }
}

```

```

        //Locate a link and click it.
        WebElement fbAlreadyLink =
driver.findElement(By.linkText("Already have an account?"));
        fbAlreadyLink.click();

    }

    public static void googleAccCreation(WebDriver driver) throws
InterruptedException {

        String baseUrl =
"https://accounts.google.com/signup/v2/createaccount?flowEntry=SignUp";

        driver.get(baseUrl);

        // Locate the first name feild using id
        WebElement firstNameTF =
driver.findElement(By.id("firstName"));
        //System.out.println("firstname text feild details
"+"firstNameTF);

        firstNameTF.sendKeys("firname");

        // Locate the last name feild using name
        WebElement lastNameTF =
driver.findElement(By.name("lastName"));
        lastNameTF.sendKeys("lasname");

        //Locate the button using class
        WebElement nextButton =
driver.findElement(By.className("VfPpkd-vQzf8d"));
        nextButton.click();

        // Locate by XPath
        String xPathOfMonth =
"/html/body/div[1]/div[1]/div[2]/div/div[2]/div/div/div[2]/div/div[1]/div/f
orm/span/section/div/div/div[1]/div[2]/div/div/div[2]/select";
        WebElement monthSelectElement =
driver.findElement(By.xpath(xPathOfMonth));
        System.out.println("monthSelectElement details
"+"monthSelectElement);

        Select select = new Select(monthSelectElement);
        select.selectByValue("6");

        Thread.sleep(15000);
        driver.close();

    }

}

```

Problem 3

```

package com.ecommerce.test;

import java.time.Duration;
import java.util.List;
import java.util.concurrent.TimeUnit;

```

```

import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.WindowType;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.Select;
import org.openqa.selenium.support.ui.WebDriverWait;

public class AdvancedLocatingElements {

    public static void main(String[] args) throws InterruptedException {
        // Basic configuration
        WebDriver driver = new ChromeDriver();

        demoAdvancedXPathCSSSelector(driver);

        static void demoAdvancedXPathCSSSelector(WebDriver driver) {

            String baseUrl = "File:///C:\\Users\\Saptarshi Paul\\eclipse-
workspace3\\hello-selenium\\src\\main\\resources\\test.html";

            // String baseUrl =
            //
            "https://github.com/awstraining/blob/main/PHASE5/afternoon/hello-
selenium/src/main/resources/test.html";

            driver.get(baseUrl);

            List<WebElement> inputAdminElements =
driver.findElements(By.xpath("//input[contains(@id, 'admin')]"));

            System.out.println("inputAdminElements has " +
inputAdminElements.size()); // 3

            // Same as above but using CSS selectors
            List<WebElement> inputAdminElementsUsingCSSSelectors = driver

.findElements(By.cssSelector("input[id='admin']"));
            System.out.println("inputAdminElementsUsingCSSSelectors has " +
inputAdminElementsUsingCSSSelectors.size()); // 3

            List<WebElement> inputAdminElementsUsingCSSSelectors2 =
driver.findElements(By.cssSelector("input[id$='xyz']"));
            System.out.println("input whose ids end with xyz " +
inputAdminElementsUsingCSSSelectors2.size()); // 2

            WebElement h4SecondChildInsideDiv =
driver.findElement(By.cssSelector("div[id='eCommerce'] h4:nth-child(2)"));
            System.out.println("h4SecondChildInsideDiv text is " +
h4SecondChildInsideDiv.getText()); // h4 second

            // Locate and Process multi select list
            WebElement selectMonthElement =
driver.findElement(By.id("month"));
            Select selectMonth = new Select(selectMonthElement);

```

```

        System.out.printf("\n selectMonth.isMultiple() = %s",
selectMonth.isMultiple());

        selectMonth.selectByIndex(0);
        selectMonth.selectByIndex(3);
        selectMonth.selectByIndex(6);

        List<WebElement> allMonthsSelected =
selectMonth.getAllSelectedOptions();
        for (WebElement monthOption : allMonthsSelected) {
            System.out.printf("\n option selected = %s",
monthOption.getText());
        }

    }

}

```

2)test.html

```

<html>
<head>
<title>Hello</title>
<script>
    function myDb1ClickFunction() {
        document.getElementById("demo-messages").textContent = "You
double clicked me!";
        document.getElementById("demo-messages").style.color = "red";
    }

    function mySglClickFunction() {
        document.getElementById("demo-messages").textContent = "You
single clicked me!";
        document.getElementById("demo-messages").style.color = "blue";
    }
</script>
</head>
<body bgcolor="#ffeeee">
    DEMO-MESSAGES:
    <span id="demo-messages">GETTING STARTED</span>

    <p id="xyz">Hello world!</p>

```

Alerts The simplest of these is referred to as an alert, which shows a

custom message, and a single button which dismisses the alert, labelled

in most browsers as OK. It can also be dismissed in most browsers by pressing the close button, but this will always do the same thing as the OK button.

[See an example alert](javascript:alert('hello alerts!'))

<div id="modal">

 <iframe id="myframe" name="myframe"

```

        src="https://seleniumhq.github.io" width=1200 height=400>
    </iframe>
</div>

<br>
<br>

<button id="dblButton" ondblclick="myDbClickFunction()"
        onclick="mySglClickFunction()">Double-click me or Single click
me</button>

<h3>0 Some h3 text</h3>
<form>
    <input type="text" id="admin"> <br>
    <input type="text" id="admin123"> <br>
    <input type="text" id="adminxyz">
    <br> <input type="text" id="adm"> <br>

</form>
<h3>1 Some h3 text</h3>
<h3>2 Some h3 text</h3>
<h3>3 Some h3 text</h3>

<div id='eCommerce'>
    <h4>h4 first</h4>
    <h4>h4 second</h4>
</div>

<select multiple aria-label="Month" name="birthday_month" id="month"
        title="Month" class="_9407 _5dba _9hk6 _8esg" size="12">
    <option
        value="1">Jan</option>
    <option value="2">Feb</option>
    <option value="3">Mar</option>
    <option value="4">Apr</option>
    <option value="5">May</option>
    <option value="6">Jun</option>
    <option value="7" selected="1">Jul</option>
    <option value="8">Aug</option>
    <option value="9">Sep</option>
    <option value="10">Oct</option>
    <option value="11">Nov</option>
    <option value="12">Dec</option>
</select>

<input type="text" id="WWWxyz">

</body>
</html>

```

Problem 4

a)checkboxdemo.java

```
package com;
```

```
import org.openqa.selenium.By;
```

```

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import io.github.bonigarcia.wdm.WebDriverManager;

public class CheckBoxDemo {
    public static void main(String[] args) {
        WebDriverManager.chromedriver().setup();
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.shine.com/registration/");

        WebElement checkbox = driver.findElement(By.id("id_privacy"));
        if (checkbox.isSelected()) {
            System.out.println("Checkbox is Selected by Default");
            System.out.println("Status: " + checkbox.isSelected());
        } else {
            System.out.println("CheckBox is Not Selected");
        }
        checkbox.click();
        System.out.println("Status: " + checkbox.isSelected());

        //driver.quit();
    }
}

```

b)registrationform.java:

```

package com;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

```

```

import io.github.bonigarcia.wdm.WebDriverManager;

public class RegisterForm {
    public static void main(String[] args) {
        WebDriverManager.chromedriver().setup();
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.shine.com/registration/");

        WebElement name = driver.findElement(By.id("id_name"));
        name.sendKeys("s");

        WebElement email = driver.findElement(By.id("id_email"));
        email.sendKeys("sanu@gmail.com");

        WebElement mobile = driver.findElement(By.id("id_cell_phone"));
        mobile.sendKeys("9876543210");

        WebElement password = driver.findElement(By.id("id_password"));
        password.sendKeys("s123");

        WebElement register = driver.findElement(By.cssSelector("#registerButton"));
        register.click();

        //driver.quit();
    }
}

```

Problem 5

a)

```

package com.ecommerce.test;

import java.time.Duration;
import java.util.List;

```

```

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.WindowType;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.Select;
import org.openqa.selenium.support.ui.WebDriverWait;

public class AdvancedLocatingElements {

    public static void main(String[] args) throws InterruptedException {
        // Basic configuration
        WebDriver driver = new ChromeDriver();
        demoExternalElementsNewTab(driver);
    }

    static void demoExternalElementsNewTab(WebDriver driver) throws
    InterruptedException {

        String baseUrl = "File:///C:\\Users\\Saptarshi Paul\\eclipse-
workspace3\\hello-selinium\\src\\main\\resources\\test.html";
        driver.get(baseUrl);

        // driver.manage().timeouts().implicitlyWait(10,
        TimeUnit.SECONDS);
        Thread.sleep(10000);

        driver.switchTo().newWindow(WindowType.TAB);
        driver.navigate().to("https://www.google.com?q=flowers");
    }

}

```

```

b)
package com.ecommerce.test;

import java.time.Duration;
import java.util.List;
import java.util.concurrent.TimeUnit;

```

```

import org.openqa.selenium.Alert;
import org.openqa.selenium.By;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.WindowType;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.Select;
import org.openqa.selenium.support.ui.WebDriverWait;

public class AdvancedLocatingElements {

    public static void main(String[] args) throws InterruptedException {
        // Basic configuration
        WebDriver driver = new ChromeDriver();
        demoExternalElements(driver);
    }

    static void demoExternalElements(WebDriver driver) throws
    InterruptedException {

        String baseUrl = "File:///C:\\Users\\Saptarshi Paul\\eclipse-
workspace3\\hello-selenium\\src\\main\\resources\\test.html";
        driver.get(baseUrl);

        // driver.manage().timeouts().implicitlyWait(10,
        TimeUnit.SECONDS);
        Thread.sleep(10000);

        driver.findElement(By.linkText("See an example
alert")).click();

        // alert will appear now, may be in 10 secs
        WebDriverWait wait = new WebDriverWait(driver,
        Duration.ofSeconds(10));

        // Wait for the alert to be displayed
        wait.until(ExpectedConditions.alertIsPresent());

        // Store the alert in a variable
        Alert alert = driver.switchTo().alert();

        System.out.printf("\n alert text is %s \n", alert.getText());

        Thread.sleep(10000);

        alert.accept();
    }

}

```

Problem 6

```

package screenshots.screenshot;
import java.io.File;
import java.io.IOException;
import org.openqa.selenium.By;

```

```

import org.openqa.selenium.OutputType;
import org.openqa.selenium.TakesScreenshot;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import com.sun.jna.platform.FileUtils;

public class Screenshots {
    public static void main(String[] args ) throws IOException
    {
        System.setProperty("webdriver.chrome.driver",
"C:\\\\Users\\Testing-L-064\\chromedriver_win32\\chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.get("https://www.flipkart.com/");
        WebElement upload =
driver.findElement(By.xpath("//*[@type='text']"));
        upload.click();
        TakesScreenshot ts = (TakesScreenshot)driver;
        File scr = ts.getScreenshotAs(OutputType.FILE);
        FileUtils.copyFile(scr, new File("/Screenshot/test.png"));
    }
}

```

Problem 7

```

package com.ecommerce.test;

import java.io.IOException;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class FileUploadUsingAutoITDemo {

    public static void main(String[] args) throws Exception {
        // Basic configuration
        WebDriver driver = new ChromeDriver();

        demoFileUpload(driver);
    }

    static void demoFileUpload(WebDriver driver) throws
InterruptedException, IOException {

        // String baseUrl =
        // "File:///F:\\\\Users\\HomeWk\\git\\PHASE5\\afternoon\\hello-
selenium\\src\\main\\resources\\test.html";

        String baseUrl = "https://demoqa.com/automation-practice-form";
        driver.get(baseUrl);

        Thread.sleep(2000);
    }
}

```

```

        WebElement uploadFileElement =
driver.findElement(By.id("uploadPicture"));

        System.out.println("uploadFileElement details " +
uploadFileElement);

        Thread.sleep(10000);

        Runtime.getRuntime().exec("C:\\Screenshot\\phase5test, au3.exe");
    }
}

```

Problem 8

Creating a class file named TestAnnotations

```

package com.testannotations;

import org.testng.annotations.*;

public class TestAnnotations {

    @Test
    public void Test1() {
        System.out.println("Test1 Executed");
    }
    @Test
    public void Test2() {
        System.out.println("Test2 Executed");
    }

    @BeforeTest
    public void beforeTest() {
        System.out.println("BeforeTest Executed");
    }
    @AfterTest
    public void AfterTest() {
        System.out.println("AfterTest Executed");
    }

    @BeforeMethod
    public void beforeMethod() {
        System.out.println("BeforeMethod Executed");
    }
    @AfterMethod
    public void afterMethod() {
        System.out.println("AfterMethod Executed");
    }
}

```

```

    @BeforeClass
    public void beforeClass() {
        System.out.println("BeforeClass Executed");
    }
    @AfterClass
    public void afterClass() {
        System.out.println("AfterClass Executed");
    }
}

```

Problem 9

a)FBRegistration.java

```

package com.ecommerce.test;

import java.util.List;

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;
import org.testng.annotations.AfterClass;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.AfterSuite;
import org.testng.annotations.AfterTest;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.BeforeTest;
import org.testng.annotations.DataProvider;
import org.testng.annotations.Test;

@Test(groups = "Class1")
public class FBRegistration {
    public WebDriver driver;
    public String baseUrl = "File:///C:\\Users\\Saptarshi Paul\\eclipse-
workspace3\\hello-selenium\\src\\main\\resources\\test.html";

    @Test(groups = { "Google" })
    public void searchGoogle() {
        System.out.printf("Inside %s and thread-id is %s \n",
"searchGoogle", Thread.currentThread().getId());

        driver.get("http://www.google.com");

        System.out.println("Title of google page is " +
driver.getTitle());
    }

    @Test(groups = { "Account Creation" })

```

```

        public void fbAccount() {
            System.out.printf("Inside %s and thread-id is %s \n",
"fbAccount", Thread.currentThread().getId());

            String baseUrl =
"https://www.facebook.com/r.php?locale=en_GB&display=page";

            driver.get(baseUrl);

            String cssDay = "#day";
            WebElement cssDaySelect =
driver.findElement(By.cssSelector(cssDay));

            Select daySelect = new Select(cssDaySelect);
            daySelect.selectByVisibleText("11");

            WebElement cssGenderRadio =
driver.findElement(By.cssSelector("span > span >
input[type='radio'][value='2']"));
            cssGenderRadio.click();

            System.out.println("Gender is enabled = " +
cssGenderRadio.isSelected());
        }

        @Test(groups = { "Account Creation", "Google" }, dataProvider =
"googleNewUserData")
        public void googleAccount(String fName, String lName) {
            System.out.printf("Inside %s and thread-id is %s \n",
"googleAccount", Thread.currentThread().getId());

            String baseUrl =
"https://accounts.google.com/signup/v2?biz=true&flowEntry=SignUp";
            driver.get(baseUrl);

            // Let's locate the first name text field by its id.
            WebElement firstNameTF =
driver.findElement(By.id("firstName"));
            firstNameTF.sendKeys(fName) ;//("Myname");

            // Let's locate the surname name text field by its name.
            WebElement surNameTF = driver.findElement(By.name("lastName"));
            surNameTF.sendKeys(lName);//("latName");

            // The Next button using its class
            WebElement nextButton =
driver.findElement(By.className("VfPpkd-vQzf8d"));
            System.out.println("Text on the button is " +
nextButton.getText());
        }

        @Test(groups = { "Dummy" }, dependsOnGroups = { "Account Creation" })
        public void f1() {
            System.out.printf("Inside %s and thread-id is %s \n", "f1",
Thread.currentThread().getId());
        }

        @Test(enabled = false)
        public void f2() {
            System.out.printf("Inside %s and thread-id is %s \n", "f2",
Thread.currentThread().getId());
        }

```

```

    }

    @Test()
    public void testLocalPage() {
        System.out.printf("Inside %s and thread-id is %s \n",
            "testLocalPage", Thread.currentThread().getId());

        driver.get(baseUrl);

        WebElement selectMonthElement =
            driver.findElement(By.id("month"));
        Select selectMonth = new Select(selectMonthElement);

        System.out.println("selectMonth is muti select " +
            selectMonth.isMultiple());

        selectMonth.selectByIndex(0);
        selectMonth.selectByIndex(6);

        List<WebElement> optionsList =
            selectMonth.getAllSelectedOptions();

        for (WebElement option : optionsList)
            System.out.println("selectMonth selected options are " +
                option.getText());
    }

    @BeforeMethod
    public void beforeMethod() {
        System.out.printf("Inside %s and thread-id is %s \n",
            "beforeMethod", Thread.currentThread().getId());
    }

    @AfterMethod
    public void afterMethod() {
        System.out.printf("Inside %s and thread-id is %s \n",
            "afterMethod", Thread.currentThread().getId());
    }

    @DataProvider(name = "googleNewUserData")
    public Object[][] googleNewUserData() {
        return new Object[][] {

            { "fname1", "lname1" },
            { "fname2", "lname2" }

        };
    }

    @BeforeClass
    public void beforeClass() {
        System.out.printf("Inside %s and thread-id is %s \n",
            "beforeClass", Thread.currentThread().getId());
    }

    @AfterClass
    public void afterClass() {
        System.out.printf("Inside %s and thread-id is %s \n ",
            "afterClass", Thread.currentThread().getId());
    }

    @BeforeTest

```

```

    public void beforeTest() {
        System.out.printf("Inside %s and thread-id is %s \n",
"beforeTest", Thread.currentThread().getId());
    }

    @AfterTest
    public void afterTest() {
        System.out.printf("Inside %s and thread-id is %s \n",
"afterTest", Thread.currentThread().getId());
    }

    @BeforeSuite
    public void beforeSuite() {
        System.out.printf("Inside %s and thread-id is %s \n",
"beforeSuite", Thread.currentThread().getId());
        // System.setProperty("webdriver.chrome.driver", "C:\\Users\\
Downloads\\chromedriver_win32\\chromedriver.exe");

        driver = new ChromeDriver();
    }

    @AfterSuite
    public void afterSuite() {
        System.out.printf("Inside %s and thread-id is %s \n",
"afterSuite", Thread.currentThread().getId());
        driver.quit();
    }
}

```

b)testing.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
<suite name="Suite">
    <!-- <test thread-count="5" name="Test FaceBook" parallel="methods"> -->
        <test thread-count="5" name="Test FaceBook" parallel="methods">
            <classes>
                <class name="com.ecommerce.test.FBRegistration"/>
            </classes>
        </test> <!-- Test -->

        <!-- Test
        <test thread-count="5" name="Test Google">
            <classes>
                <class name="com.ecommerce.test.GoogleRegistration"/>
            </classes>
        </test>
        -->

</suite> <!-- Suite -->

```

Problem 10

```

package com.asserts;

import org.openqa.selenium.By;

```

```
import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.testng.Assert;

import org.testng.annotations.Test;

import org.testng.asserts.SoftAssert;


public class Assertions {

    SoftAssert soft = new SoftAssert();

    WebDriver driver;

    @Test

    public void Launch() {

        System.setProperty("webdriver.chrome.driver",
"./Resources/chromedriver.exe");

        driver = new ChromeDriver();

        try {

            Thread.sleep(3000);

        } catch (Exception e) {

            e.printStackTrace();

        }

    }

}

@Test(dependsOnMethods = { "Launch" })
```

```
public void Facebook() {  
  
    driver.get("https://www.facebook.com");  
  
    soft.assertEquals("FB Title", driver.getTitle());  
  
    try {  
  
        Thread.sleep(2000);  
  
    } catch (Exception e) {  
  
        e.printStackTrace();  
  
    }  
}
```

```
@Test(dependsOnMethods = { "Facebook" })
```

```
public void Login() {  
  
    driver.findElement(By.id("email")).sendKeys("rishi77777@gmail.com");  
  
    driver.findElement(By.id("pass")).sendKeys("12345");  
  
    driver.findElement(By.id("loginbutton")).click();  
  
    soft.assertAll();  
  
    try {  
  
        Thread.sleep(3000);  
  
    } catch (Exception e) {  
  
        e.printStackTrace();  
  
    }  
}
```

```
}  
  
}
```

Problem 11

newtest.java

```
package com;  
import org.testng.annotations.Test;  
import org.testng.AssertJUnit;  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.chrome.ChromeDriver;  
import org.testng.annotations.AfterTest;  
import org.testng.annotations.BeforeTest;  
import org.testng.annotations.Test;  
import org.testng.asserts.SoftAssert;  
  
public class NewTest {  
    private WebDriver driver;  
    SoftAssert soft = new SoftAssert();  
    @Test  
  
    public void testEasy() {  
        driver = new ChromeDriver();  
        driver.get("https://www.facebook.com");  
        String title = driver.getTitle();  
        AssertJUnit.assertEquals("FB Login", title);  
    }  
    @BeforeTest  
    public void beforeTest() {  
        driver = new ChromeDriver();  
    }  
    @AfterTest  
    public void afterTest() {  
        driver.quit();  
    }  
}
```

pom.xml

```
<project xmlns="http://maven.apache.org/POM/4.0.0"  
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0  
        https://maven.apache.org/xsd/maven-4.0.0.xsd">  
    <modelVersion>4.0.0</modelVersion>  
    <groupId>SeleJenk</groupId>  
    <artifactId>SeleJenk</artifactId>  
    <version>0.0.1-SNAPSHOT</version>  
    <dependencies>  
        <dependency>  
            <groupId>junit</groupId>  
            <artifactId>junit</artifactId>  
            <version>3.8.1</version>
```

```

        <scope>test</scope>
    </dependency>
    <dependency>
        <groupId>org.seleniumhq.selenium</groupId>
        <artifactId>selenium-java</artifactId>
        <version>2.45.0</version>
    </dependency>
    <dependency>
        <groupId>org.testng</groupId>
        <artifactId>testng</artifactId>
        <version>6.14.2</version>
        <scope>test</scope>
    </dependency>

</dependencies>
<build>
    <plugins>
        <plugin>
            <groupId>org.apache.maven.plugins</groupId>
            <artifactId>maven-plugin-plugin</artifactId>
            <version>3.6.0</version>
            <configuration>
                <goalPrefix>plugin</goalPrefix>
                <outputDirectory>target/dir</outputDirectory>
            </configuration>
        </plugin>
    </plugins>
</build>
</project>

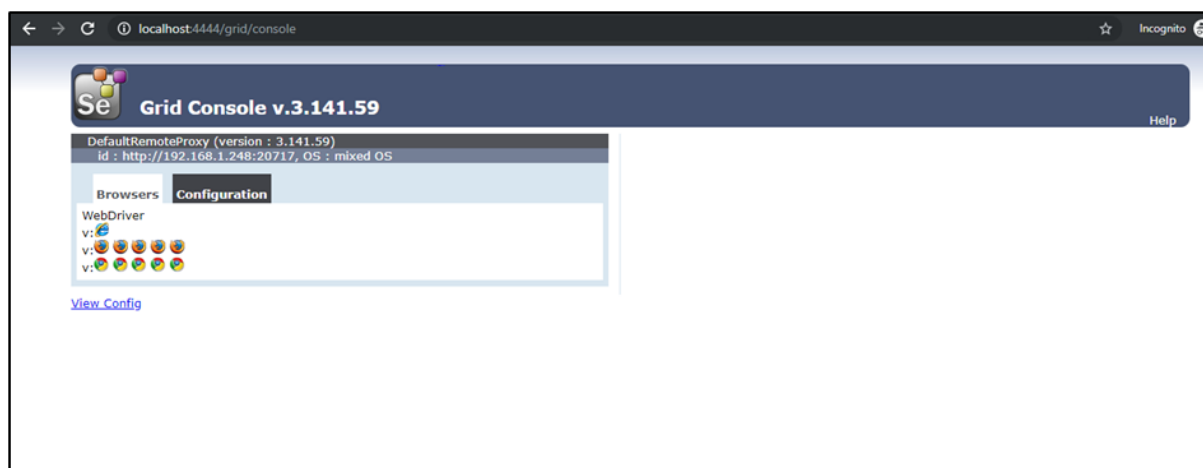
```

Problem 12

The screenshot shows the SeleniumHQ website's download page. The header includes the SeleniumHQ logo and navigation links. The main content area is titled 'Downloads' and provides information about the latest releases of Selenium components. A red box highlights the 'Selenium Standalone Server' section, which explains that the Selenium Server is needed to run Remote Selenium WebDriver. Another red box highlights the 'Download version' as '3.141.59'. The page also includes a 'Donate to Selenium' section with a 'Donate' button and a 'The Internet Explorer Driver Server' section.

```
Command Prompt - java -jar selenium-server-standalone-3.141.59.jar -role hub

D:\Selenium Grid>java -jar selenium-server-standalone-3.141.59.jar -role hub
17:34:07.632 INFO [GridLauncherV3.parse] - Selenium server version: 3.141.59, revision: e82be7d358
17:34:07.769 INFO [GridLauncherV3.lambda$buildLaunchers$5] - Launching Selenium Grid hub on port 4444
13-09-2023 14:48:23.209:INFO::main: Logging initialized @897ms to org.seleniumhq.jetty9.util.log.StdErrLog
17:34:08.841 INFO [Hub.start] - Selenium Grid hub is up and running
17:34:08.842 INFO [Hub.start] - Nodes should register to http://192.168.1.248:4444/grid/register/
17:34:08.843 INFO [Hub.start] - Clients should connect to http://192.168.1.248:4444/wd/hub
```



```
Command Prompt - java -jar selenium-server-standalone-3.141.59.jar -role node -hub http://localhost:4444/grid/register

Microsoft Windows [Version 10.0.17134.950]
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C:\Users\User>d:

D:\>cd Selenium Grid

D:\Selenium Grid>java -jar selenium-server-standalone-3.141.59.jar -role node -hub http://localhost:4444/grid/register
17:54:25.329 INFO [GridLauncherV3.parse] - Selenium server version: 3.141.59, revision: e82be7d358
17:54:25.499 INFO [GridLauncherV3.lambda$buildLaunchers$7] - Launching a Selenium Grid node on port 20717
13-09-2023 14:48:23.247:INFO::main: Logging initialized @1328ms to org.seleniumhq.jetty9.util.log.StdErrLog
17:54:26.566 INFO [WebDriverServlet.<init>] - Initialising WebDriverServlet
17:54:26.655 INFO [SeleniumServer.boot] - Selenium Server is up and running on port 20717
17:54:26.656 INFO [GridLauncherV3.lambda$buildLaunchers$7] - Selenium Grid node is up and ready to register to the hub
17:54:26.939 INFO [SelfRegisteringRemote$1.run] - Starting auto registration thread. Will try to register every 5000 ms.
17:54:30.868 INFO [SelfRegisteringRemote.registerToHub] - Registering the node to the hub: http://localhost:4444/grid/register
17:54:31.159 INFO [SelfRegisteringRemote.registerToHub] - The node is registered to the hub and ready to use
```

Problem 13

```
{
  "port": 4444,
  "newSessionWaitTimeout": -1,
  "servlets": [],
  "withoutServlets": [],
  "custom": {},
  "capabilityMatcher": "org.openqa.grid.internal.utils.DefaultCapabilityMatcher",
  "throwOnCapabilityNotPresent": true,
  "cleanUpCycle": 5000,
  "role": "hub",
  "debug": false,
  "browserTimeout": 0,
  "timeout": 1800
}
```

Command Prompt - java -jar selenium-server-standalone-3.141.59.jar -role hub -hubConfig myhub.json

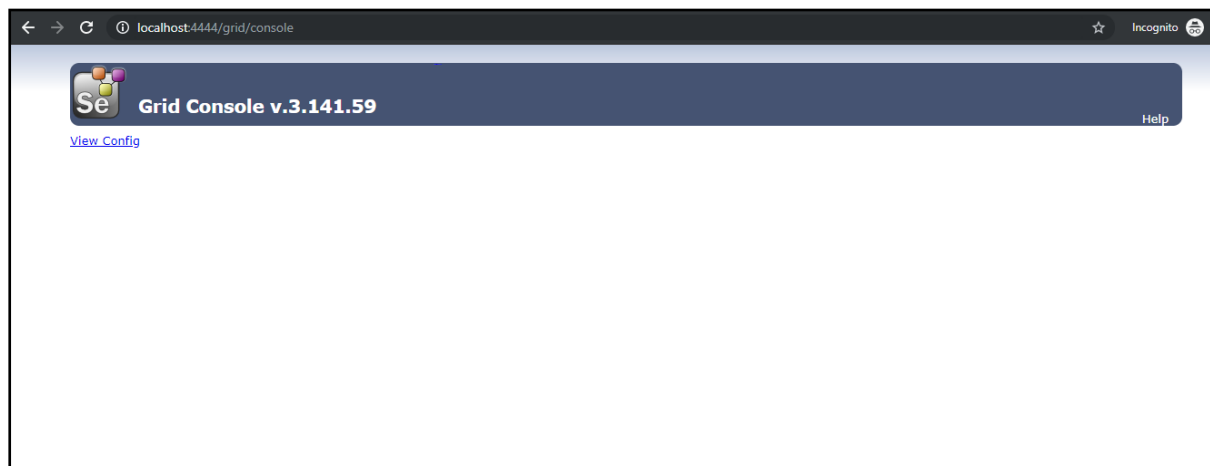
Microsoft Windows [Version 10.0.17134.950]

(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\User>d:

D:\>cd Selenium Grid

```
D:\Selenium Grid>java -jar selenium-server-standalone-3.141.59.jar -role hub -hubConfig myhub.json
15:44:15.021 INFO [GridLauncherV3.parse] - Selenium server version: 3.141.59, revision: e82be7d358
15:44:15.157 INFO [GridLauncherV3.lambda$buildLaunchers$5] - Launching Selenium Grid hub on port 4444
13-09-2023 14:48:23.581:INFO::main: Logging initialized @929ms to org.seleniumhq.jetty9.util.log.StdErrLog
15:44:16.217 INFO [Hub.start] - Selenium Grid hub is up and running
15:44:16.218 INFO [Hub.start] - Nodes should register to http://192.168.1.248:4444/grid/register/
15:44:16.218 INFO [Hub.start] - Clients should connect to http://192.168.1.248:4444/wd/hub
15:49:28.797 INFO [DefaultGridRegistry.add] - Registered a node http://192.168.1.248:5555
```



```

"capabilities":
[
  {
    "browserName": "firefox",
    "maxInstances": 5,
    "seleniumProtocol": "WebDriver"
  },
  {
    "browserName": "chrome",
    "maxInstances": 5,
    "seleniumProtocol": "WebDriver"
  }
],
"proxy": "org.openqa.grid.selenium.proxy.DefaultRemoteProxy",
"maxSession": 5,
"port": 5555,
"register": true,
"registerCycle": 5000,
"hub": "http://localhost:4444",
"nodeStatusCheckTimeout": 5000,
"nodePolling": 5000,
"role": "node",
"unregisterIfStillDownAfter": 60000,
"downPollingLimit": 2,
"debug": false,
"servlets": [],
"withoutServlets": [],
"custom": {}
}

```

Command Prompt - java -Dwebdriver.gecko.driver="geckodriver.exe" -Dwebdriver.chrome.driver="chromedriver.exe" -jar selenium-server-standalone...

```


Microsoft Windows [Version 10.0.17134.950]
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C:\Users\User>cd Selenium Grid

D:\Selenium Grid>java -Dwebdriver.gecko.driver="geckodriver.exe" -Dwebdriver.chrome.driver="chromedriver.exe" -jar selenium-server-standalone-3.141.59.jar -role node -nodeConfig mynodes.json
16:05:36.650 INFO [GridLauncherV3.parse] - Selenium server version: 3.141.59, revision: e82be7d358
16:05:36.809 INFO [GridLauncherV3.lambda$buildLaunchers$7] - Launching a Selenium Grid node on port 5555
13-09-2023 14:48:23.511:INFO::main: Logging initialized @1177ms to org.seleniumhq.jetty9.util.log.StdErrLog
16:05:37.856 INFO [WebDriverServlet.<init>] - Initialising WebDriverServlet
16:05:37.959 INFO [SeleniumServer.boot] - Selenium Server is up and running on port 5555
16:05:37.959 INFO [GridLauncherV3.lambda$buildLaunchers$7] - Selenium Grid node is up and ready to register to the hub
16:05:38.225 INFO [SelfRegisteringRemote$1.run] - Starting auto registration thread. Will try to register every 5000 ms.
16:05:38.769 INFO [SelfRegisteringRemote.registerToHub] - Registering the node to the hub: http://localhost:4444/grid/register
16:05:38.992 INFO [SelfRegisteringRemote.registerToHub] - The node is registered to the hub and ready to use









```

localhost:4444/grid/console

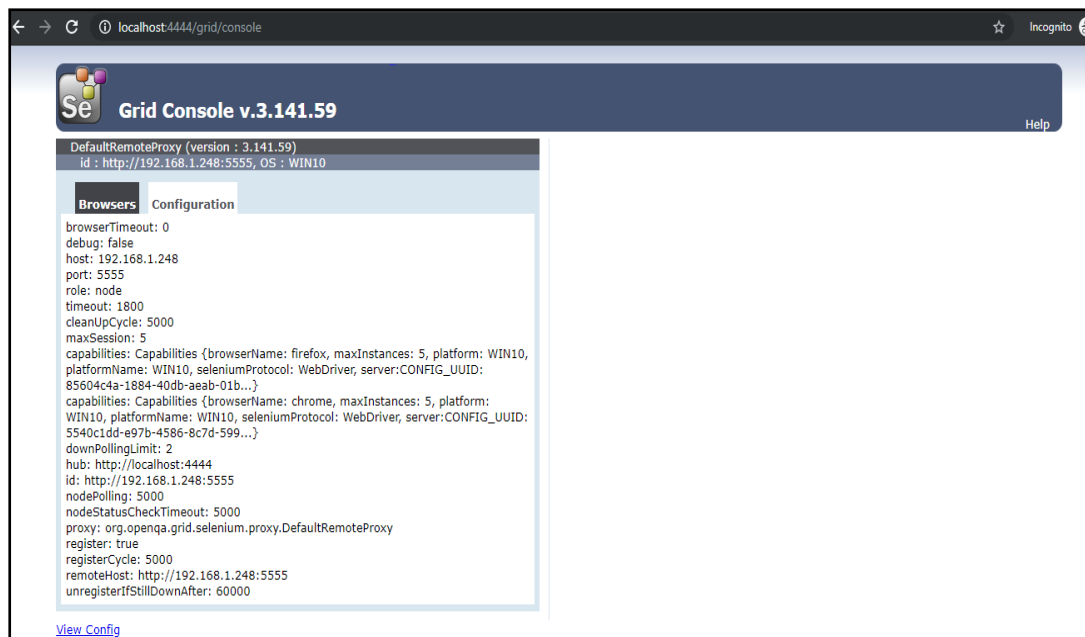

Grid Console v.3.141.59
Help

DefaultRemoteProxy (version : 3.141.59)
id : http://192.168.1.248:5555, OS : WIN10

Browsers **Configuration**

WebDriver
v:    
v:    

[View Config](#)



Problem 14

GridTest.java:

```

package testing.sidTesting;
import java.net.URL;
import java.net.MalformedURLException;

import org.openqa.selenium.Platform;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.remote.RemoteWebDriver;
import org.openqa.selenium.remote.DesiredCapabilities;

public class GridTest{
    public static void main(String[] args) throws MalformedURLException {
        DesiredCapabilities cap= new DesiredCapabilities();
        cap.setBrowserName("chrome");
        cap.setPlatform(Platform.WIN10);

        URL url= new URL("http://172.20.10.3:4444/wd/hub");
        WebDriver driver= new RemoteWebDriver(url, cap);

        driver.get("https://www.google.com");
        System.out.println("Google Title: "+driver.getTitle());

        driver.close();
    }
}

```

Pom.xml:

```

<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/xsd/maven-4.0.0.xsd">

```

```

    <modelVersion>4.0.0</modelVersion>
    <groupId>package</groupId>
    <artifactId>package</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <dependencies>
      <!--
      https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-
java -->
      <dependency>
        <groupId>org.seleniumhq.selenium</groupId>
        <artifactId>selenium-java</artifactId>
        <version>4.10.0</version>
      </dependency>

      <!--
      https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-
chrome-driver -->
      <dependency>
        <groupId>org.seleniumhq.selenium</groupId>
        <artifactId>selenium-chrome-driver</artifactId>
        <version>4.10.0</version>
      </dependency>

      <!--
      https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-
firefox-driver -->
      <dependency>
        <groupId>org.seleniumhq.selenium</groupId>
        <artifactId>selenium-firefox-driver</artifactId>
        <version>4.10.0</version>
      </dependency>

    </dependencies>
  </project>

```