Q.1 Which components have you used in Load Runner Up?

Answer:

- 1. Virtual user Generator (Vugen): Used to create and edit scripts that emulate real time user behaviour.
- **2.** Controller: Used to create scenarios for load test, set the behaviour of calls, and specify the duration of the test.
- **3. Load generator :** Used to generate load against application by following script
- **4. Analysis :** Used to assemble logs from load generators and format report for visualising run result data

Q.2 How can you set the number of Vuser in load runner?

Answer:

Here are some ways to set Vuser in load runner:

- **1. Add or Edit Vuser groups :** You can add or edit Vuser groups durning a test run by going to the performance test run page and clicking design groups and scheduler. From there you can select add groups to add a new group or edit group to edit an existing group.
- **2. Manage Vuser during a run :** You can manage Vuser during a run by going to the run dashboard opening the group tabs and placing the cursor over a group name, from there you can click the down arrow and select edit group.
- **3. Select Vuser distribution method :** You can select a Vuser distribution method for a performance test by opening the workload Types dialog box. The type of work load you choose determines how the Vusers will be distributed at run time
- 4. **Initialize Vuser**: You can initialize all Vusers simultaneously or gradually before running them.

Q.3 What is correlation?

Answer: Correlation in Load Runner is a critical process that ensures the smooth execution of scripts during load testing. It handles the dynamic nature of client-server communication, making scripts more robust and reliable.

Correlation is all about dealing with dynamic values, which the server generates and passes to the client during a session. These values, often unique to each session can include session IDs, Transaction IDs, or any other data the server creates on the fly.

The correlation process in load runner captures these dynamic values from the server's responses. Once captured these values are then inserted back into subsequent requests from the client to the server.

Q.4 What is the process for developing a Vuser script?

Answer: The process for developing a Vuser script involves the following steps:

- **1. Record the Vuser script :** Record the actions that will be performed as part of the testing scenario.
- **2. Playback and improve :** Playback the recorded script and make improvements.
- **3. Define the test parameters :** Define and test the different run time parameters.
- **4.** Use in a scenario: Use the script in a load runner scenario.

Here are some other things to know about Vuser scripts:

Vuser scripts are used to emulate real world business processes in the load runner environment.

Run time settings control the behaviour of Vusers executing scripts. These setting includes pacing a logging option.

Loadrunner client emulation scripts are usually created using the ANSI C programing language. However java and .net programs can also be run by LoadRunner.

Version 12.50 of LoadRunner added the use of java script for web HTTP/HTML scripts.

Q. 5 How LoadRunner interacts with the application?

Answer: LoadRunner interacts with an application by simulating user activity and recording the application's performance.

- **1. Simulate user activity :** LoadRunner generates messages between application components or simulates user interactions like mouse movements or key presses.
- **2. Records performance:** LoadRunner records the performance of the application's key components while under load.
- **3. Analyzes performance :** Load Runner analyzes the recorded performance data to identify potential issues and bottlenecks
- **4. Provide test reports:** LoadRunner provides detailed test reports and analysed that help testers identify trends and areas for improvement.

LoadRunner is a software testing tool that can be used To test web applications, mobile

applications, and databases. It can simulate millions of users concurrently and works on platforms like windows, Linux and Unix.

Q.6 How many Vusers are required for load testing?

Answer: The number of users are required for load testing depends on number of factors, including the application's latency, the number of requests per second(RPS) and the average length a user stay on the site.

RPS and latency: The number of virtual users can be calculated using The formula virtual users = request per second* latency per secondEx. If the application latency 20 milliseconds, then to simulate 100000 RPS you would need 2000 virtual users.

Think time: A formula can be used to determine the required concurrent ,users with a given think time, Ex. If the think time is 3 second, the formula is 100000/ (8*10*60) which results in approximately 21 users.

It's recommended to start with one virtual user to validate the test and check the response code. Then the number of virtual users can be gradually increased.

Q.7 What is the relationship between response time and throughput?

Answer:

Throughput : Measures the overall performance of the system. For transaction processing systems, Throughput is typically measured in transactions per second(TPS) or transaction per minute(TPM).

Response Time: Response time measures the performance of an individual transaction or query.

Q.8 What is automation testing?

Answer: Automation testing is a software testing technique that uses tools and scripts to automatically validate a software product functionality. It can be used to check for issues, ensure that the software meet quality standard, and ensure that it works as expected.

Q.9 Which are the browser supported by selenium IDE?

Answer : Selenium IDE supports the following browsers :
Chrome
Firefox
Edge
IE

Safari

Q.10 What are the benefits of automation testing?

Answer: 70% faster than the manual testing. Wider test coverage of application features. Reliable in results. Ensure consistency Save time and cost Human intervention not required while execution Increases efficiency. Better speed in executing tests Re-usable test script Test frequently and thoroughly More cycle of execution can be achieved through automation Early time to market

Q. 11 What are the advantages of selenium?

Answer: Selenium is a free, open source, automation testing framework, that has many advantage, including:

- 1. Open source: Selenium is free and publicly accessible
- **2. Multi browser support :** Selenium test automation scripts are compatible with many browsers :Chrome, Firefox, safari, internet explorer, opera, and edge
- 3. Multi language support:: Selenium support multi programming languages.
- **4. Reusable automation test suites:** Selenium automated testing can be reused across different browsers and operating systems.
- **5. Flexible test management :** Selenium allow for rapid code changes, reduced duplication and improve code readability.
- **6. Early defect detection :** Selenium help find defects earlier.
- 7. Easy implementation: Selenium has a user friendly interface and flexible implementation.
- **8. Integrations :** Selenium integrated with popular tools like sc compiler, cloud grids and CI system

9. Test run report generation: Selenium can generate test run report.

Q. 12 Why tester should opt for selenium and not QTP?

Answer: selenium is open source, free to use and free of charge rather than QTP is commercial.selenium is highly extensible and QTP have limited add-onsselenium can run across different browser, when Qtp is run on firefox, internet explorer and chrome.selenium support various operating systems. when QTP only be used in windows.selenium supports mobile devices. when QTP supports mobile using 3rd party software.selenium can execute tests in parallel when QTP can only execute in parallel but using Quality center which is again a paid product.selenium can execute tests while the browser is minimized to be visible on the desktop, when QTP needs to have the application under test.

Q.13 To validate the tops technologies website Contact us page and enter your friend detail at last "Login and side menu".

Answer:

Tops contact us page validate script:

```
// Generated by Selenium IDE
import org.junit.Test;
import org.junit.Before;
import org.junit.After;
import static org.junit.Assert.*;
import static org.hamcrest.CoreMatchers.is;
import static org.hamcrest.core.IsNot.not;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.remote.RemoteWebDriver;
```

```
import org.openqa.selenium.remote.DesiredCapabilities;
import org.openqa.selenium.Dimension;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.interactions.Actions;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.Alert;
import org.openqa.selenium.Keys;
import java.util.*;
import java.net.MalformedURLException;
import java.net.URL;
public class ContactTest {
 private WebDriver driver;
 private Map<String, Object> vars;
 JavascriptExecutor is;
 @Before
 public void setUp() {
  driver = new ChromeDriver();
  js = (JavascriptExecutor) driver;
  vars = new HashMap<String, Object>();
 @After
```

```
public void tearDown() {
 driver.quit();
@Test
public void contact() {
 driver.get("https://www.tops-int.com/contact-us");
 driver.manage().window().setSize(new Dimension(1366, 728));
  WebElement element = driver.findElement(By.linkText("Send Inquiry"));
  Actions builder = new Actions(driver);
  builder.moveToElement(element).perform();
 driver.findElement(By.linkText("Send Inquiry")).click();
 {
  WebElement element = driver.findElement(By.tagName("body"));
  Actions builder = new Actions(driver);
  builder.moveToElement(element, 0, 0).perform();
 driver.findElement(By.cssSelector(".btn-close:nth-child(3)")).click();
 driver.findElement(By.id("inq name")).click();
 driver.findElement(By.id("inq name")).sendKeys("sagar");
  WebElement element = driver.findElement(By.linkText("Send Inquiry"));
```

```
Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
  driver.findElement(By.linkText("Send Inquiry")).click();
  {
   WebElement element = driver.findElement(By.tagName("body"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element, 0, 0).perform();
  }
   WebElement element = driver.findElement(By.cssSelector(".btn-close:nth-
child(2)"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
  driver.findElement(By.cssSelector(".btn-close:nth-child(2)")).click();
  driver.findElement(By.id("inq email")).click();
  driver.findElement(By.id("inq email")).sendKeys("sagar@gmail.com");
   WebElement element = driver.findElement(By.linkText("Send Inquiry"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
```

```
driver.findElement(By.linkText("Send Inquiry")).click();
  {
   WebElement element = driver.findElement(By.tagName("body"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element, 0, 0).perform();
  }
   WebElement element = driver.findElement(By.cssSelector(".btn-close:nth-
child(2)"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
  driver.findElement(By.cssSelector(".btn-close:nth-child(2)")).click();
  driver.findElement(By.id("inq contact")).click();
  driver.findElement(By.id("inq contact")).sendKeys("1234567890");
  {
   WebElement element = driver.findElement(By.linkText("Send Inquiry"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
  driver.findElement(By.linkText("Send Inquiry")).click();
   WebElement element = driver.findElement(By.tagName("body"));
```

```
Actions builder = new Actions(driver);
   builder.moveToElement(element, 0, 0).perform();
  }
  driver.findElement(By.cssSelector(".btn-close:nth-child(2)")).click();
  driver.findElement(By.id("inq name")).click();
  driver.findElement(By.id("inq name")).sendKeys("sagar");
  driver.findElement(By.id("inq email")).click();
  driver.findElement(By.id("inq email")).sendKeys("sagar@mail.com");
  {
   WebElement element = driver.findElement(By.linkText("Send Inquiry"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
  driver.findElement(By.linkText("Send Inquiry")).click();
   WebElement element = driver.findElement(By.tagName("body"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element, 0, 0).perform();
  }
   WebElement element = driver.findElement(By.cssSelector(".alert > .btn-
close"));
   Actions builder = new Actions(driver);
```

```
builder.moveToElement(element).perform();
}
driver.findElement(By.cssSelector(".alert > .btn-close")).click();
 WebElement element = driver.findElement(By.tagName("body"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element, 0, 0).perform();
driver.findElement(By.id("inq email")).click();
driver.findElement(By.id("inq email")).sendKeys("sagar@mail.com");
driver.findElement(By.id("ing contact")).click();
driver.findElement(By.id("inq contact")).sendKeys("1234567890");
 WebElement element = driver.findElement(By.linkText("Send Inquiry"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element).perform();
}
driver.findElement(By.linkText("Send Inquiry")).click();
 WebElement element = driver.findElement(By.tagName("body"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element, 0, 0).perform();
}
```

```
driver.findElement(By.cssSelector(".alert > .btn-close")).click();
  driver.findElement(By.id("inq name")).click();
  driver.findElement(By.id("inq name")).sendKeys("6359104776");
  driver.findElement(By.id("inq email")).click();
driver.findElement(By.id("inq email")).sendKeys("rathodsatyajitsinh9@gmail.co
m");
   WebElement element = driver.findElement(By.cssSelector("#location-1 > .tab-
inner > .my-4:nth-child(3)"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).clickAndHold().perform();
  }
   WebElement element = driver.findElement(By.cssSelector("#location-1 > .tab-
inner > .my-4:nth-child(3)"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
   WebElement element = driver.findElement(By.cssSelector("#location-1 > .tab-
inner > .my-4:nth-child(3)"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).release().perform();
```

```
}
  driver.findElement(By.cssSelector(".mt-md-0")).click();
  driver.findElement(By.id("ing contact")).click();
  driver.findElement(By.id("inq name")).click();
  driver.findElement(By.id("inq contact")).click();
  driver.findElement(By.id("inq_contact")).sendKeys("123dsfgghj");
   WebElement element = driver.findElement(By.linkText("Send Inquiry"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
  driver.findElement(By.linkText("Send Inquiry")).click();
   WebElement element = driver.findElement(By.tagName("body"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element, 0, 0).perform();
  }
  driver.findElement(By.id("inq name")).click();
  driver.findElement(By.id("inq name")).sendKeys("satyajeetsinh rathod");
  driver.findElement(By.id("ing email")).click();
driver.findElement(By.id("inq email")).sendKeys("rathodsatyajitsinh9@gmail.co
m");
```

```
driver.findElement(By.id("inq contact")).click();
  driver.findElement(By.id("inq contact")).sendKeys("63591rocbj");
  driver.findElement(By.linkText("Send Inquiry")).click();
  driver.findElement(By.id("inq name")).click();
  driver.findElement(By.id("ing_name")).sendKeys("satyajeet sinh rathod");
  driver.findElement(By.id("inq email")).click();
driver.findElement(By.id("ing email")).sendKeys("rathodsatyajitsinh9@gmail.co
m");
  driver.findElement(By.id("inq contact")).click();
  driver.findElement(By.id("inq contact")).sendKeys("6359104776");
  js.executeScript("window.scrollTo(0,1400)");
  driver.findElement(By.linkText("Send Inquiry")).click();
 }
}
```

saucedemo valdate login and side bar:

```
// Generated by Selenium IDE
import org.junit.Test;
import org.junit.Before;
import org.junit.After;
import static org.junit.Assert.*;
import static org.hamcrest.CoreMatchers.is;
import static org.hamcrest.core.IsNot.not;
```

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.remote.RemoteWebDriver;
import org.openqa.selenium.remote.DesiredCapabilities;
import org.openqa.selenium.Dimension;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.interactions.Actions;
import org.openqa.selenium.support.ui.ExpectedConditions;
import org.openqa.selenium.support.ui.WebDriverWait;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.Alert;
import org.openqa.selenium.Keys;
import java.util.*;
import java.net.MalformedURLException;
import java.net.URL;
public class LoginandsidebarTest {
 private WebDriver driver;
 private Map<String, Object> vars;
 JavascriptExecutor js;
 @Before
 public void setUp() {
  driver = new ChromeDriver();
  js = (JavascriptExecutor) driver;
```

```
vars = new HashMap<String, Object>();
 @After
 public void tearDown() {
  driver.quit();
 @Test
 public void loginandsidebar() {
  driver.get("https://www.saucedemo.com/");
  driver.manage().window().setSize(new Dimension(1366, 728));
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
credentials\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).sendKeys("standard user");
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
password\"]"));
   Actions builder = new Actions(driver);
```

```
builder.doubleClick(element).perform();
driver.findElement(By.cssSelector("*[data-test=\"password\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"password\"]")).sendKeys("secret sauce");
driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
 WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-button\"]"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element).perform();
driver.findElement(By.id("react-burger-menu-btn")).click();
driver.findElement(By.cssSelector("*[data-test=\"inventory-sidebar-link\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"about-sidebar-link\"]")).click();
 WebElement element = driver.findElement(By.cssSelector(".css-lwb5go > img"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element).perform();
}
driver.findElement(By.id("react-burger-menu-btn")).click();
driver.findElement(By.cssSelector("*[data-test=\"reset-sidebar-link\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"logout-sidebar-link\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
{
```

```
WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
credentials\"]"));
    Actions builder = new Actions(driver);
    builder.doubleClick(element).perform();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).sendKeys("standard_user");
  driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  {
    WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
password\"]"));
    Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
    WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
credentials\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
```

```
{
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"username\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("*[data-
test=\"username\"]")).sendKeys("locked out user");
  driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
password\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("*[data-test=\"password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"password\"]")).sendKeys("secret sauce");
  driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
credentials\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
```

```
}
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"username\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).sendKeys("problem user");
  driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
  driver.findElement(By.id("react-burger-menu-btn")).click();
  driver.findElement(By.cssSelector("*[data-test=\"inventory-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"about-sidebar-link\"]")).click();
  driver.findElement(By.id("react-burger-menu-btn")).click();
  driver.findElement(By.cssSelector("*[data-test=\"reset-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"logout-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
credentials\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
```

```
driver.findElement(By.cssSelector("*[data-
test=\"username\"]")).sendKeys("performance glitch user");
  driver.findElement(By.cssSelector("*[data-test=\"password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
password\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  driver.findElement(By.cssSelector("*[data-test=\"password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"password\"]")).sendKeys("secret sauce");
  driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-button\"]"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element).perform();
  }
  driver.findElement(By.id("react-burger-menu-btn")).click();
  driver.findElement(By.cssSelector("*[data-test=\"inventory-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"about-sidebar-link\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector(".css-lwb5go > img"));
   Actions builder = new Actions(driver);
```

```
builder.moveToElement(element).perform();
  }
   WebElement element = driver.findElement(By.tagName("body"));
   Actions builder = new Actions(driver);
   builder.moveToElement(element, 0, 0).perform();
  }
  driver.findElement(By.id("react-burger-menu-btn")).click();
  driver.findElement(By.cssSelector("*[data-test=\"reset-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"logout-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
credentials\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("form")).click();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).sendKeys("error user");
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
password\"]"));
```

```
Actions builder = new Actions(driver);
 builder.doubleClick(element).perform();
driver.findElement(By.cssSelector("*[data-test=\"password\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"password\"]")).sendKeys("secret sauce");
driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
{
 WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-button\"]"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element).perform();
}
driver.findElement(By.id("react-burger-menu-btn")).click();
driver.findElement(By.cssSelector("*[data-test=\"inventory-sidebar-link\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"about-sidebar-link\"]")).click();
 WebElement element = driver.findElement(By.cssSelector(".css-lwb5go > img"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element).perform();
 WebElement element = driver.findElement(By.tagName("body"));
 Actions builder = new Actions(driver);
 builder.moveToElement(element, 0, 0).perform();
driver.findElement(By.id("react-burger-menu-btn")).click();
```

```
driver.findElement(By.cssSelector("*[data-test=\"reset-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"logout-sidebar-link\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-credentials\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
credentials\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"username\"]")).sendKeys("visual user");
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"login-password\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-
password\"]"));
   Actions builder = new Actions(driver);
   builder.doubleClick(element).perform();
  }
  driver.findElement(By.cssSelector("*[data-test=\"password\"]")).click();
  driver.findElement(By.cssSelector("*[data-test=\"password\"]")).sendKeys("secret sauce");
  driver.findElement(By.cssSelector("*[data-test=\"login-button\"]")).click();
  {
   WebElement element = driver.findElement(By.cssSelector("*[data-test=\"login-button\"]"));
   Actions builder = new Actions(driver);
```

```
builder.moveToElement(element).perform();
driver.findElement(By.id("react-burger-menu-btn")).click();
driver.findElement(By.cssSelector("*[data-test=\"inventory-sidebar-link\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"about-sidebar-link\"]")).click();
driver.findElement(By.cssSelector(".header label")).click();
driver.findElement(By.cssSelector("*[data-test=\"primary-header\"]")).click();
driver.findElement(By.id("react-burger-menu-btn")).click();
driver.findElement(By.cssSelector("*[data-test=\"reset-sidebar-link\"]")).click();
driver.findElement(By.cssSelector(".bm-item-list")).click();
driver.findElement(By.id("react-burger-cross-btn")).click();
driver.findElement(By.id("react-burger-menu-btn")).click();
driver.findElement(By.id("react-burger-cross-btn")).click();
driver.findElement(By.cssSelector(".app logo")).click();
driver.findElement(By.id("react-burger-menu-btn")).click();
driver.findElement(By.cssSelector("*[data-test=\"reset-sidebar-link\"]")).click();
driver.findElement(By.cssSelector("*[data-test=\"logout-sidebar-link\"]")).click();
```