



School of Computer Science and Engineering

Subject Code : PMCA614P

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Website	https://tutorialninja.com/demo/
Project Name	Tutorial Ninja
Module Name	Login Module
Created By	Vinayak Kumar Singh
Reviewed By	
Date of Creation	05.01.24

Test Case ID	Test Scenario	Test Case	Steps	Test Data	Expected Results	Actual Result	Test Status	Priority	Bug
Test_Login_01	Valid username and password	Enter valid username and valid password, click Login	1. Open the website 2. Go to login page. 3. Enter valid username and valid password. 4. Click Login.	abcd1234@gmail.com pass1234	Login Successful		Completed	NA	NA
Test_Login_02	Invalid username and valid password	Enter invalid username and valid password, click Login	1. Open the website 2. Go to login page. 3. Enter invalid username and valid password. 4. Click Login.	abcd1234@gmail.com pass1235	Login Failed		Completed	NA	NA
Test_Login_03	Invalid username and invalid password	Enter invalid username and invalid password, click Login	1. Open the website 2. Go to login page. 3. Enter invalid username and invalid password. 4. Click Login.	abcd1234@gmail.com pass1236	Login Failed		Completed	NA	NA
Test_Login_04	Null username and valid password	Leave username field blank, enter valid password, click Login	1. Open the website 2. Go to login page. 3. Enter valid password. 4. Click Login.	abcd1234@gmail.com pass1237	Login Failed		Completed	NA	NA
Test_Login_05	username and null password	Enter valid username, leave password field blank, click Login	1. Open the website 2. Go to login page. 3. Enter valid username. 4. Click Login.	abcd1234@gmail.com pass1238	Login Failed		Completed	NA	NA
Test_Login_06	Refresh Page	Refresh the login page	1. Open the website 2. Go to login page. 3. Refresh login page. 4. Click Login.	NA	Login Failed		Completed	NA	NA
Test_Login_07	Navigate Front and Back	Navigate to another page, then back to the login page	1. Open the website 2. Go to login page. 3. Navigate to other page. 4. Click Login Page.	NA	Login Failed		Completed	NA	NA
Test_Login_08	Open Multi-Window	Open multiple browser windows/tabs, try to log in with the same credentials	1. Open the website 2. Go to login page. 3. Enter valid username and valid password. 4. Click Login.	abcd1234@gmail.com pass1241	Login Successful		Completed	NA	NA
Test_Login_09	Logout in one windows & all logged out	Log out in one window/tab, check other windows/tabs	1. Open the website 2. Go to login page. 3. Enter valid username and valid password and Click Login. 4.Click on logout.	abcd1234@gmail.com pass1242	All windows/tabs should be logged out		Completed	NA	NA
Test_Login_10	New Browser and check	Open a different browser, try to log in.	1. Open the website 2. Go to login page. 3. Enter valid username and valid password. 4. Click Login.	abcd1234@gmail.com pass1243	Login Successful		Completed	NA	NA

23MCA1030

Vinayak Kumar Singh

Ex. No: 2 Automated Testing using Selenium IDE

Aim: To create a test plan and execute the test plan using Selenium

Testcase 1: Registration

User 1:

The screenshot shows the Selenium IDE interface with a test case titled 'registration' for the project 'AutoData'. The test case consists of 20 steps, each with a command, target, and value. The steps are as follows:

Step	Command	Target	Value
1	open	/parabank/index.htm	
2	set window size	1680x854	
3	click	linkText=Register	
4	click	id=customer.firstName	
5	type	id=customer.firstName	Pratik
6	click	id=customer.lastName	
7	type	id=customer.lastName	Singh
8	click	id=customer.address.street	
9	type	id=customer.address.street	d1 723,vil chennai
10	click	id=customer.address.city	
11	type	id=customer.address.city	chennai
12	click	css=form2	
13	click	id=customer.address.state	
14	type	id=customer.address.state	Tamil Nadu
15	click	id=customer.address.zipCode	
16	click	id=customer.address.zipCode	
17	type	id=customer.address.zipCode	600127
18	click	id=customer.phoneNumber	
19	type	id=customer.phoneNumber	877034515
20	click	id=customer.ssn	

At the bottom left, it shows 'Runs: 1 Failures: 0'. At the bottom right, there are tabs for 'Log' and 'Reference'.

User 2:

Extension: (Selenium IDE) - Selenium IDE - AutoData* — Mozilla Firefox

Project: AutoData*

Tests +

Search tests...

https://parabank.parasoft.com

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1686x854	
3 ✓ click	linkText=Register	
4 ✓ click	id=customer.firstName	
5 ✓ type	id=customer.firstName	Ariel
6 ✓ click	id=customer.lastName	
7 ✓ type	id=customer.lastName	Singh
8 ✓ click	id=customer.address.street	
9 ✓ type	id=customer.address.street	49236 Lubowitz Street Apt.
10 ✓ click	id=customer.address.city	
11 ✓ type	id=customer.address.city	chennai
12 ✓ click	css=form2	
13 ✓ click	id=customer.address.state	
14 ✓ type	id=customer.address.state	Tamil Nadu
15 ✓ click	id=customer.address.zipCode	
16 ✓ click	id=customer.address.zipCode	
17 ✓ type	id=customer.address.zipCode	600127
18 ✓ click	id=customer.phoneNumber	

Command

Target

Value

Description

Log Reference

User 3:

Extension: (Selenium IDE) - Selenium IDE - AutoData* — Mozilla Firefox

Project: AutoData*

Tests +

Search tests...

https://parabank.parasoft.com

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1686x854	
3 ✓ click	linkText=Register	
4 ✓ click	id=customer.firstName	
5 ✓ type	id=customer.firstName	Katlyn
6 ✓ click	id=customer.lastName	
7 ✓ type	id=customer.lastName	Rodriguez
8 ✓ click	id=customer.address.street	
9 ✓ type	id=customer.address.street	Jaiden Burgs Suite 132
10 ✓ click	id=customer.address.city	
11 ✓ type	id=customer.address.city	chennai
12 ✓ click	css=form2	
13 ✓ click	id=customer.address.state	
14 ✓ type	id=customer.address.state	Tamil Nadu
15 ✓ click	id=customer.address.zipCode	
16 ✓ click	id=customer.address.zipCode	
17 ✓ type	id=customer.address.zipCode	03284
18 ✓ click	id=customer.phoneNumber	

Command click

Target linkText=Register

Value

Description

Log Reference

ariel_monahanariel_monahan

^ v Highlight All Match Case Match Diacritics Whole Words **Phrase not found**

User 4:

Extension: (Selenium IDE) - Selenium IDE - AutoData* — Mozilla Firefox

Project: AutoData*

Tests + Run current test Ctrl+R soft.com

Step	Command	Target	Value
1	✓ click	id=customer.phoneNumber	
2	✓ type	id=customer.phoneNumber	+1 653-772-2493
3	✓ click	id=customer.ssn	
4	✓ type	id=customer.ssn	354363135
5	✓ click	id=customer.username	
6	✓ type	id=customer.username	fidel33
7	✓ click	id=customer.password	
8	✓ type	id=customer.password	fidel33
9	✓ click	css=tr:nth-child(13) > td:nth-child(2)	
10	✓ click	css=tr:nth-child(13) > td:nth-child(2)	
11	✓ double click	css=tr:nth-child(13) > td:nth-child(2)	
12	✓ click	id=repeatedPassword	
13	✓ type	id=repeatedPassword	fidel33
14	✓ click	css=id > button	
15	✓ click	linkText=Open New Account	
16	✓ click	id=fromAccountId	
17	✓ click	css=p:nth-child(5) > b	

Command Target Value

Target

Value

Description

Log Reference

User 5:

Extension: (Selenium IDE) - Selenium IDE - AutoData* — Mozilla Firefox

Project: AutoData*

Tests + Run current test Ctrl+R soft.com

Step	Command	Target	Value
1	✓ open	/parabank/index.htm	
2	✓ set window size	1686x854	
3	✓ click	linkText/Register	
4	✓ click	id=customer.firstName	
5	✓ type	id=customer.firstName	Marielle
6	✓ click	id=customer.lastName	
7	✓ type	id=customer.lastName	Heaney
8	✓ click	id=customer.address.street	
9	✓ type	id=customer.address.street	Jeromy Inlet Suite
10	✓ click	id=customer.address.city	
11	✓ type	id=customer.address.city	florida
12	✓ click	css=form2	
13	✓ click	id=customer.address.state	
14	✓ type	id=customer.address.state	Florida
15	✓ click	id=customer.address.zipCode	
16	✓ click	id=customer.address.zipCode	
17	✓ type	id=customer.address.zipCode	12020
18	✓ click	id=customer.phoneNumber	

Command Target Value

Target

Value

Description

Log Reference

Test Case 2: Login

User 1: Correct Username and Password

The screenshot shows the Selenium IDE interface with the project set to "AutoData". A single test case named "login" is displayed, containing the following steps:

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1686x695	
3 ✓ type	name=username	CodeVinayak
4 ✓ click	name=password	
5 ✓ type	name=password	CodeVinayak
6 ✓ click	css=button:nth-child(1)	

User 2: Correct Username and Wrong Password

Login Successful (BUG)

The screenshot shows the Selenium IDE interface with the project set to "AutoData". The same "login" test case is displayed, but step 5 (type into password field) has an incorrect value: "kjnfskjnkjnrewlkjnx".

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1686x695	
3 ✓ type	name=username	CodeVinayak
4 ✓ click	name=password	
5 ✓ type	name=password	kjnfskjnkjnrewlkjnx
6 ✓ click	css=button:nth-child(1)	

User 3: Wrong Username and Correct Password

Login Successful (BUG)

The screenshot shows the Selenium IDE interface with the project set to "ParaBank". A new test case named "login 3" is displayed, containing the following steps:

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1686x695	
3 ✓ type	name=username	ABCD
4 ✓ click	name=password	
5 ✓ type	name=password	CodeVinayak
6 ✓ click	css=button:nth-child(1)	
7 ✓ click	linkText=Log Out	

Below the table, there are four input fields for adding new steps: Command, Target, Value, and Description.

User 4: Wrong Username and Wrong Password

Login Successful (BUG)

Project: ParaBank*

Tests + | https://parabank.parasoft.com

Search tests...

✓ login 4*

registration

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1686x695	
3 ✓ type	name=username	aaaa
4 ✓ click	name=password	
5 ✓ type	name=password	aaaaaaaa
6 ✓ click	css=button:nth-child(1)	
7 ✓ click	linkText=Log Out	

Command

Target

Value

Description

User 5: Correct Username and empty password

Tests + | https://parabank.parasoft.com

Search tests...

✓ login 5*

registration

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1686x695	
3 ✓ type	name=username	CodeVinayak
4 ✓ click	name=password	
5 ✓ type	name=password	
6 ✓ click	css=button:nth-child(1)	

Command

Target

Value

Description

Log Reference

Log	Reference
1. open on /parabank/index.htm OK	19:31:29
2. setWindowSize on 1686x695 OK	19:31:30
3. type on name=username with value CodeVinayak OK	19:31:30
4. click on name=password OK	19:31:30
5. type on name=password OK	19:31:31
6. click on css=button:nth-child(1) OK	19:31:32
'login 5' completed successfully	19:31:34

Error!

Please enter a username and password.

Test case 3: Customer care / feedback

Task 1: Correct Name, Correct Email, Correct Phone number and Correct message

Status: Pass

Project: ParaBank*

Tests + | https://parabank.parasoft.com

✓ Customer Care 1*

✓ login 5*

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1051x798	
3 ✓ click	linkText=contact	
4 ✓ click	id=name	
5 ✓ type	id=name	Vinayak
6 ✓ click	css=form2	
7 ✓ click	id=email	
8 ✓ type	id=email	abcd@gmail.com
9 ✓ click	id=phone	
10 ✓ type	id=phone	9630576848
11 ✓ click	id=message	
12 ✓ type	id=message	Hello customer care
13 ✓ click	css=id > button	

Command

Task 2: Empty Name, Correct Email, Correct Phone number and Correct message

Status: Pass

Project: ParaBank*

Tests + | https://parabank.parasoft.com

✓ Customer Care 1*

✓ Customer Care 2*

✓ login 5*

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1051x798	
3 ✓ click	linkText=contact	
4 ✓ click	id=name	
5 ✓ type	id=name	
6 ✓ click	css=form2	
7 ✓ click	id=email	
8 ✓ type	id=email	abcd@gmail.com
9 ✓ click	id=phone	
10 ✓ type	id=phone	9630576848
11 ✓ click	id=message	
12 ✓ type	id=message	Hello customer care
13 ✓ click	css=id > button	

Command

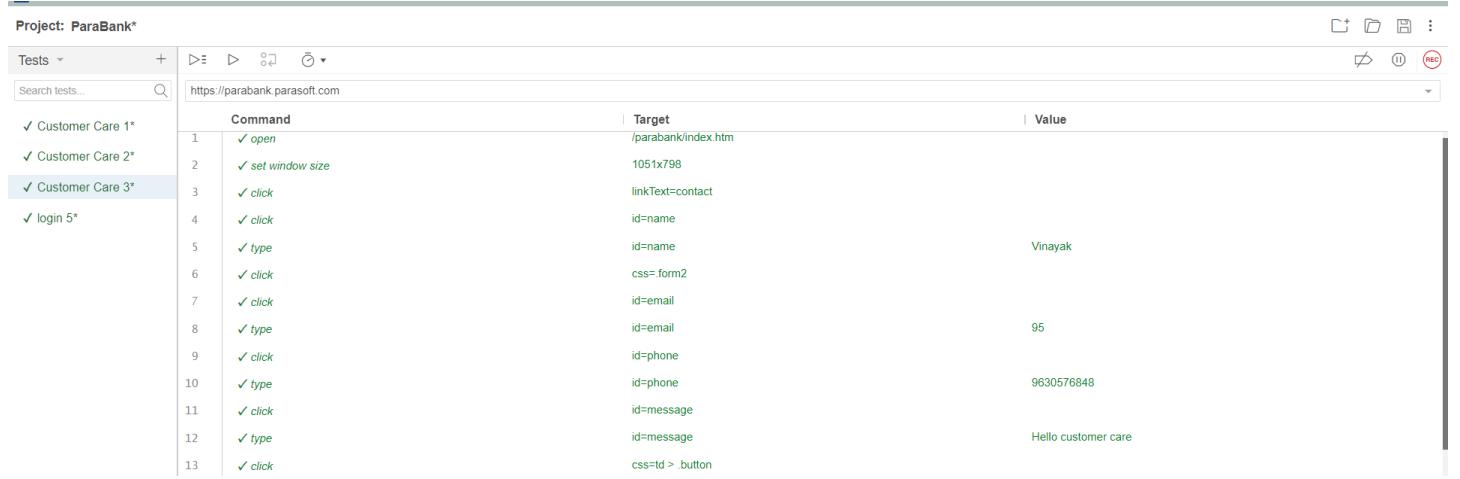
Customer Care

Email support is available by filling out the following form.

Name: <input type="text"/>	Name is required.
Email: <input type="text" value="abcd@gmail.com"/>	
Phone: <input type="text" value="9630576848"/>	
Hello customer care	
Message:	<input type="text"/>
SEND TO CUSTOMER CARE	

Task 3: Correct Name, Wrong Email, Correct Phone number and Correct message

Status : Failed (Bug) Works with wrong email id without @xyz.com

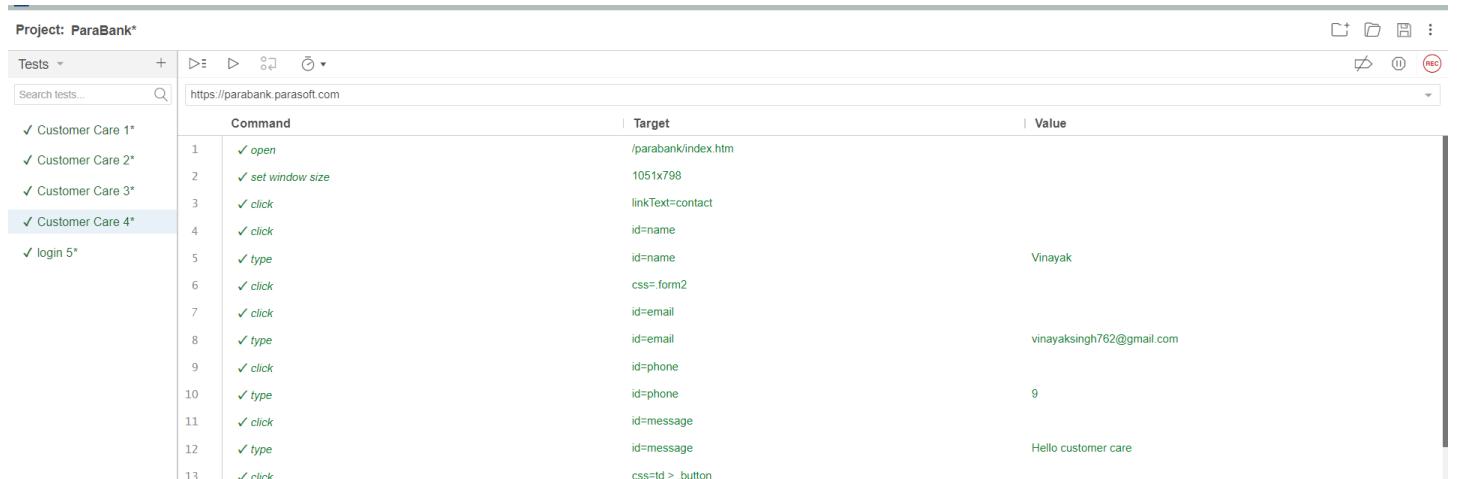


The screenshot shows a test configuration in Parasoft. The left sidebar lists tests: Customer Care 1*, Customer Care 2*, Customer Care 3*, and login 5*. Customer Care 3* is selected. The main area shows a sequence of 13 commands:

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1051x798	
3 ✓ click	linkText=contact	
4 ✓ click	id=name	
5 ✓ type	id=name	Vinayak
6 ✓ click	css=form2	
7 ✓ click	id=email	
8 ✓ type	id=email	95
9 ✓ click	id=phone	
10 ✓ type	id=phone	9630576848
11 ✓ click	id=message	
12 ✓ type	id=message	Hello customer care
13 ✓ click	css=td > button	

Task 4: Correct Name, Correct Email, wrong Phone number and Correct message

Status: Failed (Bug) Works with wrong Phone number with just 1 digit.



The screenshot shows a test configuration in Parasoft. The left sidebar lists tests: Customer Care 1*, Customer Care 2*, Customer Care 3*, and Customer Care 4*. Customer Care 4* is selected. The main area shows a sequence of 13 commands:

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1051x798	
3 ✓ click	linkText=contact	
4 ✓ click	id=name	
5 ✓ type	id=name	Vinayak
6 ✓ click	css=form2	
7 ✓ click	id=email	
8 ✓ type	id=email	vinayaksingh762@gmail.com
9 ✓ click	id=phone	
10 ✓ type	id=phone	9
11 ✓ click	id=message	
12 ✓ type	id=message	Hello customer care
13 ✓ click	css=td > button	

Task 5: Correct Name, Empty Email, Empty Phone number and Correct message

Status: Pass

Project: ParaBank*

Tests +

Search tests...

https://parabank.parasoft.com

Command	Target	Value
1 ✓ open	/parabank/index.htm	
2 ✓ set window size	1051x798	
3 ✓ click	linkText=contact	
4 ✓ click	id=name	
5 ✓ type	id=name	Vinayak
6 ✓ click	css=.form2	
7 ✓ click	id=email	
8 ✓ type	id=email	
9 ✓ click	id=phone	
10 ✓ type	id=phone	
11 ✓ click	id=message	
12 ✓ type	id=message	Hello customer care
13 ✓ click	css=td > .button	

Customer Care

Email support is available by filling out the following form.

Name: Email: Email is required.

Phone: Phone is required

Message:

Hello customer care

Resource used:

Website:

<https://parabank.parasoft.com/>

To generate random Data:

<https://autotestdata.com/>

---END---

Software Testing

Ex3.

AIM: To check login functionality of website (<https://the-internet.herokuapp.com/login>).

Procedure:

Step 1: To check if java and maven is installed.

Step 2: Open Eclipse IDE.

Create a folder and open a maven project.

Step3: In this experiment we are going to test the website:

<https://the-internet.herokuapp.com/login>

so we will use group id as:

com.herokuapp.theinternet

Enter artifact as Selenium_webtest

Enter name as selenium experiment number.

Step4: open pom.xml replace http with https

Step 5: Install

1.compiler

<https://maven.apache.org/plugins/maven-compiler-plugin/examples/set-compiler-source-and-target.html>

Code:

```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-compiler-plugin</artifactId>
      <version>3.12.1</version>
      <configuration>
```

```
<source>21</source>
<target> 21</target>
</configuration>
</plugin>
</plugins>
</build>
```

2.Surfice plugin

<https://maven.apache.org/surefire/maven-surefire-plugin/examples/testng.html>

copy code of Using Suite XML Files

```
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-surefire-plugin</artifactId>
  <version>3.2.5</version>
  <configuration>
    <suiteXmlFiles>
      <suiteXmlFile>testng.xml</suiteXmlFile>
    </suiteXmlFiles>
  </configuration>
</plugin>
```

3.Testing dependency

<https://mvnrepository.com/artifact/org.testng/testng/7.9.0>

```
<!-- https://mvnrepository.com/artifact/org.testng/testng -->
<dependency>
  <groupId>org.testng</groupId>
  <artifactId>testng</artifactId>
```

```
<version>7.9.0</version>
<scope>test</scope>
</dependency>
```

4. Maven selenium dependency

<https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-java/4.17.0>

```
<dependency>
  <groupId>org.seleniumhq.selenium</groupId>
  <artifactId>selenium-java</artifactId>
  <version>4.17.0</version>
</dependency>
```

Right click on src/test/java

Create new package

Name : com.herokuapp.theinternet

Now right click on same package com.herokuapp.theinternet and create new class.

Enter name : PositiveTest

The package and class will be created.

Create a method loginTest():

```
public void loginTest()
```

```
{  
    WebDriver driver=new ChromeDriver();  
}
```

When red line will show just press control + shift + alphabet o

Do same red line concept here:

```
WebElement username=driver.findElement(By.xpath(url))
```

5.Get chrome extension Ranorex Selocity:

<https://chromewebstore.google.com/detail/ranorex-selicity/ocgghcnnjekfpbmafindjmijdpopafoe>

Add to browser and restart browser.

6.open the website.

<https://the-internet.herokuapp.com/login>

In the page:

Right click on username and select action copy xpath and paste on url.

Do same for password.

Add loginbtn and do same with xpath and send on login btn click.

Copy username and password and paste it.

7.Now add @Test before this code

```
public class PositiveTest {  
    public void loginTest()  
    {  
        WebDriver driver=new ChromeDriver();  
        String url="https://the-internet.herokuapp.com/login";  
        driver.get(url);  
        driver.manage().window().maximize();  
        WebElement  
username=driver.findElement(By.xpath("//input[@id='username']"));  
        username.sendKeys("tomsmith");  
        WebElement  
password=driver.findElement(By.xpath("//input[@id='password']"));  
        password.sendKeys("SuperSecretPassword!");
```

```

    WebElement
loginbtn=driver.findElement(By.xpath("//form[@id='login']//i[@class='fa fa-2x fa-sign-in']"));

    loginbtn.click();

    driver.close();

}

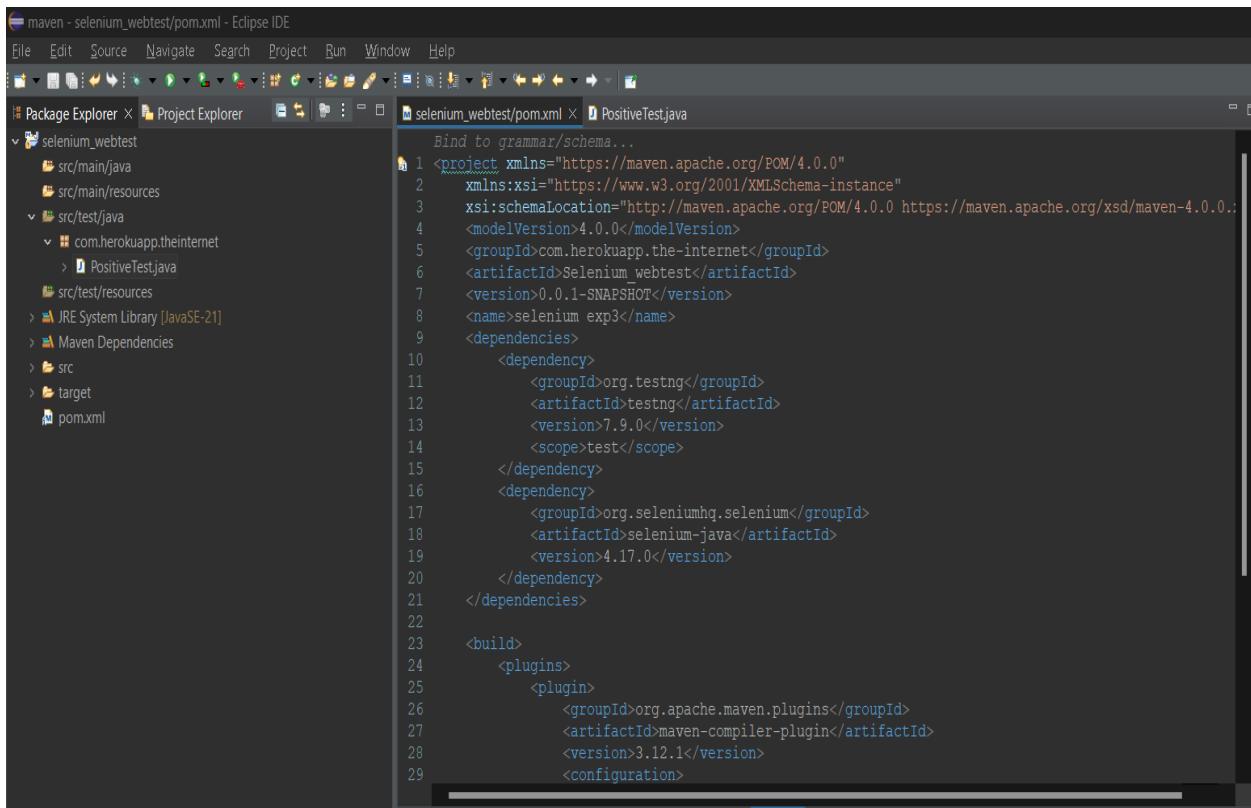
```

After adding test there will be red line.
just go to test and wait and then click on import test.

8. Now open cmd again and go to folder file path where it is saved.

Go to eclipse workspace and folder which you might created.

Code:



The screenshot shows the Eclipse IDE interface with the following details:

- Project Explorer:** Displays the project structure for "selenium_webtest". It includes the "pom.xml" file, the "PositiveTest.java" source code file, and various Java and resource folders.
- Code Editor:** The "PositiveTest.java" file is open, showing Java code for a Selenium test. The code imports org.openqa.selenium.* and org.openqa.selenium.chrome.ChromeDriver. It defines a PositiveTest class with a loginTest() method that navigates to a login page, inputs credentials, and prints a success message. It also contains a sleep() method. A TODO comment is present in the sleep() method.
- Task List:** An empty list of tasks.
- Outline:** Shows the class structure with methods like loginTest() and sleep().
- Problems:** Shows 1 warning: "Project 'selenium_webtest' has no explicit encoding".
- Bottom Bar:** Includes icons for search, file operations, and system status (language, date).

```
| Command Prompt | + - X
C:\Users\kingv\eclipse-workspace\maven\selenium_webtest>mvn clean test
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.herokuapp.the-internet:Selenium_webtest >-----
[INFO] Building selenium exp3 0.0.1-SNAPSHOT
[INFO]   from pom.xml
[INFO]      -----[ jar ]-----
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ Selenium_webtest ---
[INFO] Deleting C:\Users\kingv\eclipse-workspace\maven\selenium_webtest\target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ Selenium_webtest ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource from src\main\resources to target\classes
[INFO]
[INFO] --- compiler:3.12.1:compile (default-compile) @ Selenium_webtest ---
[INFO] Nothing to compile - all classes are up to date.
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ Selenium_webtest ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource from src\test\resources to target\test-classes
[INFO]
[INFO] --- compiler:3.12.1:testCompile (default-testCompile) @ Selenium_webtest ---
[INFO] Recompiling the module because of changed source code.
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent!
[INFO] Compiling 1 source file with javac [debug target 21] to target\test-classes
[INFO]
[INFO] --- surefire:3.2.5:test (default-test) @ Selenium_webtest ---
[INFO] Using auto detected provider org.apache.maven.surefire.testng.TestNGProvider
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running com.herokuapp.theinternet.PositiveTest
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
the test executed successfullyFeb 03, 2024 11:46:46 PM org.openqa.selenium.remote.http.WebSocket$Listener onError
WARNING: Connection reset
java.net.SocketException: Connection reset

[INFO] Running com.herokuapp.theinternet.PositiveTest
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
the test executed successfullyFeb 03, 2024 11:46:46 PM org.openqa.selenium.remote.http.WebSocket$Listener onError
WARNING: Connection reset
java.net.SocketException: Connection reset
    at java.base/sun.nio.ch.SocketChannelImpl.throwConnectionReset(SocketChannelImpl.java:401)
    at java.base/sun.nio.ch.SocketChannelImpl.read(SocketChannelImpl.java:434)
    at java.net.http/jdk.internal.net.http.SocketTube.readAvailable(SocketTube.java:1178)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadSubscription.read(SocketTube.java:841)
    at java.net.http/jdk.internal.net.http.SocketTube$SocketFlowTask.run(SocketTube.java:181)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler$ScheduledTask.run(SequentialScheduler.java:207)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler.runOrSchedule(SequentialScheduler.java:280)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler.runOrSchedule(SequentialScheduler.java:233)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$InternalReadSubscription.signalReadable(SocketTube.java:782)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$ReadEvent.signalEvent(SocketTube.java:965)
    at java.net.http/jdk.internal.net.http.SocketTube$SocketFlowEvent.handle(SocketTube.java:253)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.handleEvent(HttpClientImpl$SelectorManager.java:1467)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.lambda$run$3(HttpClientImpl$SelectorManager.java:1412)
    at java.base/java.util.ArrayList.forEach(ArrayList.java:1596)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.run(HttpClientImpl.java:1412)

[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 33.09 s -- in com.herokuapp.theinternet.PositiveTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 36.381 s
[INFO] Finished at: 2024-02-03T23:46:47+05:30
[INFO]
```

Ex.4. - Web Testing using Selenium

Name: Vinayak Kumar Singh

Reg No: 23MCA1030

Subject: Software Testing

Instructions

To Perform Web Testing using Selenium and perform following:

1. Searching URL
2. Logout Button
3. The Text Content

Aim: Perform Web Testing using Selenium

Procedure:

- a. Open a web browser
- b. Navigate to the specified URL
- c. Search for a specific URL
- d. Locate and click on the Logout button

Steps

1. Create a Project: Selenium_webtest_ex4
2. In pom.xml change http to https
3. Add dependency and plugins in pom.xml

```
<project xmlns="https://maven.apache.org/POM/4.0.0"
    xmlns:xsi="https://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>com.herokuapp.the-internet</groupId>
    <artifactId>Selenium_webtest</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>selenium exp3</name>
    <dependencies>
        <dependency>
            <groupId>org.testng</groupId>
            <artifactId>testng</artifactId>
            <version>7.9.0</version>
            <scope>test</scope>
        </dependency>
        <dependency>
            <groupId>org.seleniumhq.selenium</groupId>
            <artifactId>selenium-java</artifactId>
            <version>4.17.0</version>
        </dependency>
    </dependencies>

    <build>
        <plugins>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-compiler-plugin</artifactId>
                <version>3.12.1</version>
                <configuration>
                    <source>21</source>
                    <target>21</target>
                </configuration>
            </plugin>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-surefire-plugin</artifactId>
                <version>3.2.5</version>
            </plugin>
        </plugins>
    </build>
</project>
```

4. Right click on **src/test/java**

Create new package Name : **com.herokuapp.theinternet**

Now right click on same package **com.herokuapp.theinternet** and create new class.

Enter name : **PositiveTest** The package and class will be created.

5.Add code to **PostiviteTest.java**

```
package com.herokuapp.theinternet;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.Assert;
import org.testng.annotations.Test;
@Test
public class PositiveTest {
    public void loginTest() {
        WebDriver driver=new ChromeDriver();
        String url="https://the-internet.herokuapp.com/login";
        driver.get(url);
        driver.manage().window().maximize();

        sleep(2);

        WebElement
username=driver.findElement(By.xpath("//input[@id='username']"));
        username.sendKeys("tomsmith");
        WebElement
password=driver.findElement(By.xpath("//input[@id='password']"));
        password.sendKeys("SuperSecretPassword!");
        sleep(2);
        WebElement
loginbtn=driver.findElement(By.xpath("//form[@id='login']//i[@class='fa fa-2x fa-sign-in']"));
        loginbtn.click();

        //Search URL
```

```

String expectedurl="https://the-internet.herokuapp.com/secure";
String actualurl=driver.getCurrentUrl();

Assert.assertEquals(actualurl, expectedurl,"the URL not same as
expected");
System.out.println("The program executed successfully");

//Search for logout
sleep(2);
WebElement
logoutbtn=driver.findElement(By.xpath("//div[@id='content']//a[@href='/logout']/i
[@class='icon-2x icon-signout']"));

Assert.assertTrue(logoutbtn.isDisplayed(),"Logout");

System.out.println("Logout Btn found");

//Search for content on the page does it matches;
String welcomemsg="You logged into a secure area!";
String
actual=driver.findElement(By.xpath("/html//div[@id='flash']")).getText();
Assert.assertTrue(actual.contains(welcomemsg),"Not found");
System.out.println("Welcome message matches");
System.out.print("Test Executed successfully");
driver.close();
}

private void sleep(int sec) {
try {
    Thread.sleep(sec*1000);
} catch (InterruptedException e) {
    // TODO Auto-generated catch block
    e.printStackTrace();
}
}
}

```

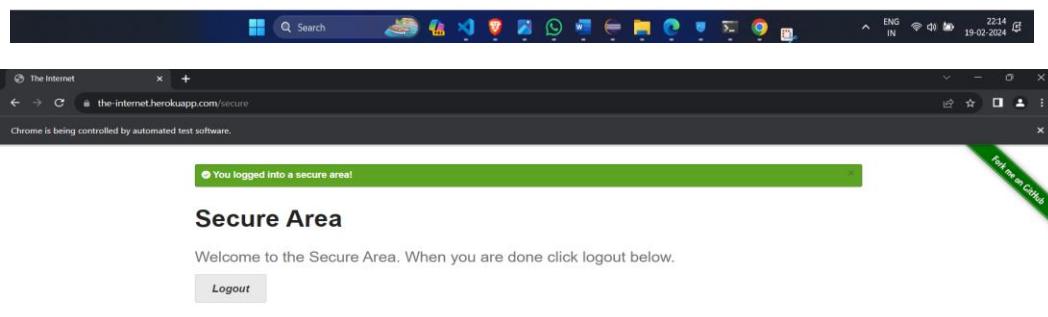
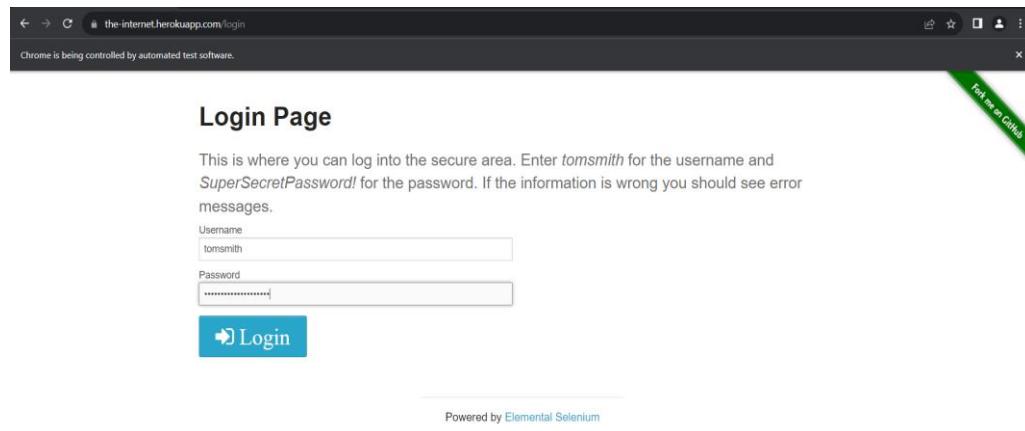
6. Open cmd and go to file path

```
Microsoft Windows [Version 10.0.22631.3155]
(c) Microsoft Corporation. All rights reserved.

C:\Users\kingv>cd "C:\Users\kingv\eclipse-workspace\maven\Selenium_webtest_ex4"

C:\Users\kingv\eclipse-workspace\maven\Selenium_webtest_ex4>
```

7. Run Code: mvn clean test



```

C:\Users\kingv\eclipse-workspace\maven\Selenium_webtest_ex4>mvn clean test
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.herokuapp.the-internet:Selenium_webtest >-----
[INFO] Building selenium exp3 0.0.1-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ Selenium_webtest ---
[INFO] Deleting C:\Users\kingv\eclipse-workspace\maven\Selenium_webtest_ex4\target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ Selenium_webtest ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource from src\main\resources to target\classes
[INFO]
[INFO] --- compiler:3.12.1:compile (default-compile) @ Selenium_webtest ---
[INFO] Nothing to compile - all classes are up to date.
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ Selenium_webtest ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource from src\test\resources to target\test-classes
[INFO]
[INFO] --- compiler:3.12.1:testCompile (default-testCompile) @ Selenium_webtest ---
[INFO] Recompiling the module because of changed source code.
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent!
[INFO] Compiling 1 source file with javac [debug target 21] to target\test-classes
[INFO]
[INFO] --- surefire:3.2.5:test (default-test) @ Selenium_webtest ---
[INFO] Using auto detected provider org.apache.maven.surefire.testng.TestNGProvider
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running com.herokuapp.theinternet.PositiveTest

```

```

[INFO] -----
[INFO] Running com.herokuapp.theinternet.PositiveTest
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
The program executed successfully
Logout Btn found
Welcome message matches
Test Executed successfullyFeb 19, 2024 10:14:08 PM org.openqa.selenium.http.WebSocket$Listener onError
WARNING: Connection reset
java.net.SocketException: Connection reset
    at java.base/sun.nio.ch.SocketChannelImpl.throwConnectionReset(SocketChannelImpl.java:401)
    at java.base/sun.nio.ch.SocketChannelImpl.read(SocketChannelImpl.java:434)
    at java.net.http/jdk.internal.net.http.SocketTube.readAvailable(SocketTube.java:1178)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$InternalReadSubscription.read(SocketTube.java:841)
    at java.net.http/jdk.internal.net.http.SocketTube$SocketFlowTask.run(SocketTube.java:181)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler$SchedulableTask.run(SequentialScheduler.java:207)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler.runOrSchedule(SequentialScheduler.java:280)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler.runOrSchedule(SequentialScheduler.java:233)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$InternalReadSubscription.signalReadable(SocketTube.java:782)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$ReadEvent.signalEvent(SocketTube.java:965)
    at java.net.http/jdk.internal.net.http.SocketTube$SocketFlowEvent.handle(SocketTube.java:253)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.handleEvent(HttpClientImpl.java:1467)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.lambda$run$3(HttpClientImpl.java:1412)
    at java.base/java.util.ArrayList.forEach(ArrayList.java:1596)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.run(HttpClientImpl.java:1412)

[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 20.11 s -- in com.herokuapp.theinternet.PositiveTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 23.589 s
[INFO] Finished at: 2024-02-19T22:14:09+05:30
[INFO] -----

```



EX: 5 WEB TESTING AND DATA ENTRY USING SELENIUM AND TESTNG

Name: Vinayak Kumar Singh

Reg No: 23MCA1030

Subject: Software Testing

Instructions

Website: <http://testphp.vulnweb.com/userinfo.php>

To Perform Web Testing using Selenium and perform following:

1. Login the website
2. Enter text document to notepad
3. Update text content to website

Aim: Perform Web Testing using Selenium

Procedure:

- a. Open a web browser and Login
- b. Retrieve and manipulate text content on the webpage

Steps

1. Created a Project: Selenium_webtest_ex4
2. In pom.xml change http to https
3. Add dependency and plugins in pom.xml

```
<project xmlns="https://maven.apache.org/POM/4.0.0"
    xmlns:xsi="https://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>com.herokuapp.the-internet</groupId>
    <artifactId>Selenium_webtest</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>selenium exp3</name>
    <dependencies>
        <dependency>
            <groupId>org.testng</groupId>
            <artifactId>testng</artifactId>
            <version>7.9.0</version>
            <scope>test</scope>
        </dependency>
        <dependency>
            <groupId>org.seleniumhq.selenium</groupId>
            <artifactId>selenium-java</artifactId>
            <version>4.17.0</version>
        </dependency>
    </dependencies>

    <build>
        <plugins>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-compiler-plugin</artifactId>
                <version>3.12.1</version>
                <configuration>
                    <source>21</source>
                    <target>21</target>
                </configuration>
            </plugin>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-surefire-plugin</artifactId>
                <version>3.2.5</version>
            </plugin>
        </plugins>
    </build>
</project>
```

4. Right click on src/test/java

Create new package Name : com.herokuapp.theinternet

Now right click on same package com.herokuapp.theinternet and create new class.

Enter name : TestHero The package and class will be created.

5.Add code to TestHero.java

```
package com.herokuapp.theinternet;
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.IOException;
import java.io.File;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.Test;

public class TestHero {

    @Test
    public void loginTest() throws IOException, InterruptedException {
        WebDriver driver = new ChromeDriver();
        String url = "http://testphp.vulnweb.com/login.php";
        driver.get(url);
        driver.manage().window().maximize();
        sleep(2);

        WebElement username =
driver.findElement(By.xpath("//div[@id='content']/div[1]/form[@name='loginform']/table//input[@name='uname']"));
        username.sendKeys("test");

        WebElement password =
driver.findElement(By.xpath("//div[@id='content']/div[1]/form[@name='loginform']/table//input[@name='pass']"));
        password.sendKeys("test");
        sleep(2);

        WebElement loginbtn =
driver.findElement(By.xpath("//div[@id='content']//form[@name='loginform']/table/tbody/tr[3]/td/input[@value='login']"));
        loginbtn.click();
        System.out.println("The Test Executed Successfully");

        String filePath = System.getProperty("user.dir") + File.separator +
"userdetail.txt";
        BufferedReader reader = new BufferedReader(new FileReader(filePath));
//        BufferedReader reader = new BufferedReader(new
FileReader(filePath));
        String line = reader.readLine();
```

```

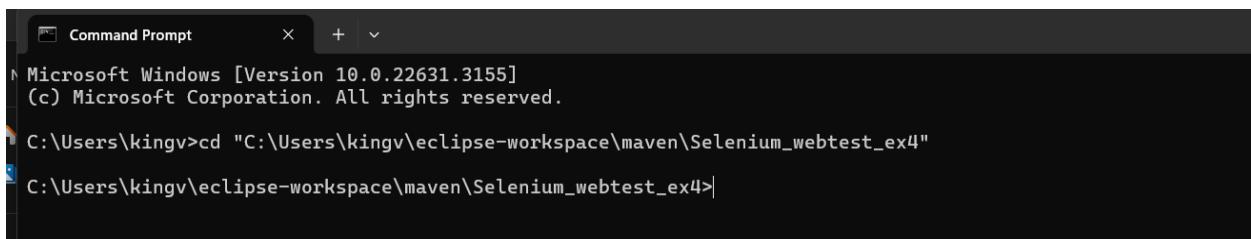
        String[] content = line.split(",");
        WebElement field1_input =
driver.findElement(By.xpath("//div[@id='content']/div[2]/form[@name='form1']/table//input[@name='username']"));
        WebElement field2_input =
driver.findElement(By.xpath("//div[@id='content']/div[2]/form[@name='form1']/table//input[@name='ucc']"));
        WebElement field3_input =
driver.findElement(By.xpath("//div[@id='content']/div[2]/form[@name='form1']/table//input[@name='uemail']"));
        WebElement field4_input =
driver.findElement(By.xpath("//div[@id='content']/div[2]/form[@name='form1']/table//input[@name='uphone']"));
        WebElement field5_input =
driver.findElement(By.xpath("//div[@id='content']/div[2]/form[@name='form1']/table//textarea[@name='uaddress']"));

        // Clear the input fields
        field1_input.clear();
        field2_input.clear();
        field3_input.clear();
        field4_input.clear();
        field5_input.clear();
//        sleep(5);
        field1_input.sendKeys(content[0]);
        field2_input.sendKeys(content[1]);
        field3_input.sendKeys(content[2]);
        field4_input.sendKeys(content[3]);
        field5_input.sendKeys(content[4]);
        sleep(5);
        WebElement submit_btn =
driver.findElement(By.xpath("//div[@id='content']//form[@name='form1']/table/tbody/tr[6]/td/input[@name='update']"));
        submit_btn.click();
        reader.close();
        driver.close();
    }

    private void sleep(int sec) {
        try {
            Thread.sleep(sec * 1000);
        } catch (InterruptedException e) {
            e.printStackTrace();
        }
    }
}

```

6. Open cmd and go to file path



7. Run Code: mvn clean test

The screenshot shows a web browser window with the URL `testphp.vulnweb.com/login.php`. The page title is "login page". A message at the top states "Chrome is being controlled by automated test software." The main content area displays the Acunetix logo and navigation links: home, categories, artists, disclaimer, your cart, guestbook, and AJAX Demo. On the left, there is a sidebar with links for search art, browse categories, browse artists, your cart, signup, your profile, our guestbook, and AJAX Demo. Below the sidebar is a puzzle piece icon. The central part of the page contains a login form with fields for Username (containing "test") and Password (containing "****"). A note below the form says "You can also signup here. Signup disabled. Please use the username **test** and the password **test**." At the bottom, there is a warning message: "Warning: This is not a real shop. This is an example PHP application, which is intentionally vulnerable to web attacks. It is intended to help you test Acunetix. It also helps you understand how developer errors and bad configuration may let someone break into your website. You can use it to test other tools and your manual hacking skills as well. Tip: Look for potential SQL Injections, Cross-site Scripting (XSS), and Cross-site Request Forgery (CSRF), and more." The browser's status bar at the bottom right shows the date and time as "01-03-2024 16:52".



```
C:\Users\kingv\eclipse-workspace\maven\Selenium_webtest_ex4>mvn clean test
[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.herokuapp.the-internet:Selenium_webtest >-----
[INFO] Building selenium exp3 0.0.1-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ Selenium_webtest ---
[INFO] Deleting C:\Users\kingv\eclipse-workspace\maven\Selenium_webtest_ex4\target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ Selenium_webtest ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource from src\main\resources to target\classes
[INFO]
[INFO] --- compiler:3.12.1:compile (default-compile) @ Selenium_webtest ---
[INFO] Nothing to compile - all classes are up to date.
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ Selenium_webtest ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource from src\test\resources to target\test-classes
[INFO]
[INFO] --- compiler:3.12.1:testCompile (default-testCompile) @ Selenium_webtest ---
[INFO] Recompiling the module because of changed source code.
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent!
[INFO] Compiling 1 source file with javac [debug target 21] to target\test-classes
[INFO]
[INFO] --- surefire:3.2.5:test (default-test) @ Selenium_webtest ---
[INFO] Using auto detected provider org.apache.maven.surefire.testng.TestNGProvider
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running com.herokuapp.theinternet.TestHero
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
The Test Executed Successfully
Mar 01, 2024 4:53:02 PM org.openqa.selenium.remote.http.WebSocket$Listener onError
WARNING: Connection reset
```

```
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running com.herokuapp.theinternet.TestHero
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
The Test Executed Successfully
Mar 01, 2024 4:53:02 PM org.openqa.selenium.remote.http.WebSocket$Listener onError
WARNING: Connection reset
java.net.SocketException: Connection reset
    at java.base/sun.nio.ch.SocketChannelImpl.throwConnectionReset(SocketChannelImpl.java:401)
    at java.base/sun.nio.ch.SocketChannelImpl.java:434)
    at java.net.http/jdk.internal.net.http.SocketTube.read(SocketTube.java:1178)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$InternalReadSubscription.read(SocketTube.java:841)
    at java.net.http/jdk.internal.net.http.SocketTube$SocketFlowTask.run(SocketTube.java:181)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler$ScheduledTask.run(SequentialScheduler.java:207)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler.runOrSchedule(SequentialScheduler.java:280)
    at java.net.http/jdk.internal.net.http.common.SequentialScheduler.runOrSchedule(SequentialScheduler.java:233)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$InternalReadSubscription.signalReadable(SocketTube.java:782)
    at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$ReadEvent.signalEvent(SocketTube.java:965)
    at java.net.http/jdk.internal.net.http.SocketTube$SocketFlowEvent.handle(SocketTube.java:253)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.handleEvent(HttpClientImpl.java:1467)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.lambda$run$3(HttpClientImpl.java:1412)
    at java.base/java.util.ArrayList.forEach(ArrayList.java:1596)
    at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.run(HttpClientImpl.java:1412)

[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 50.24 s -- in com.herokuapp.theinternet.TestHero
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO]
[INFO] -----
[INFO] Total time: 55.650 s
[INFO] Finished at: 2024-03-01T16:53:03+05:30
[INFO]
```

Software Testing Lab (PMCA614P)

Reg No: 23MCA1030

Name: Vinayak Kumar Singh

Experiment: 6

Date: 15.03.2024

Penetration Testing

Question: We received a pcap file from an organization to investigate who has forwarded their secret receipt.

File used: **evidence01.pcap**

Procedure:

Step 1: Install Wireshark

Step 2: open Wireshark

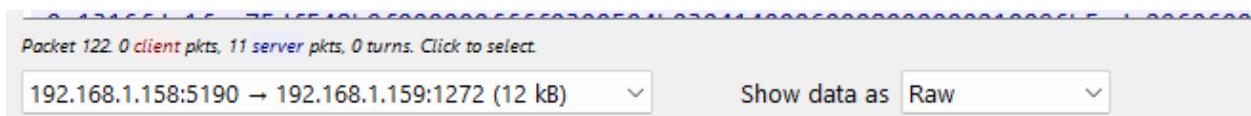
Step 3: Search TCP

Step 4: Right Click on any light green tcp follow then

Step 5: Go to follow -> TCP Stream

Step6: Increase Stream from 1 to 2

Step7: Select Raw Data like this



Find the following from the enclosed file:

1. What is the name of users IM buddy?

Sec558user1

2. What was the first comment in the captured IM conversation?

Here's the secret recipe... I just downloaded it from the file server. Just copy to a thumb drive and you're good to go >

3. What is the name of the file transferred?

recipe.docx

4. What is the magic number of the file you want to extract (first four bytes)?

OFT2

50 4B 03 04

5. What was the MD5sum of the file?

For windows:

1. Open cmd
2. Do cd desktop
3. Do dir
4. Then do CertUtil -hashfile evidence01.pcap MD5
d187d77e18c84f6d72f5845edca833f5

```
C:\Users\student\Desktop>CertUtil -hashfile evidence01.pcap MD5
MD5 hash of evidence01.pcap:
d187d77e18c84f6d72f5845edca833f5
CertUtil: -hashfile command completed successfully.
```

6. What is the secret recipe?

[recipe.docx](#)

Recipe for Disaster:

1 serving

Ingredients:

4 cups sugar

2 cups water

In a medium saucepan, bring the water to a boil. Add sugar. Stir gently over low heat until sugar is fully dissolved. Remove the saucepan from heat. Allow to cool completely. Pour into gas tank. Repeat as necessary.

Software Testing Lab (PMCA614P)

Reg No: 23MCA1030

Name: Vinayak Kumar Singh

Experiment: 5

Date: 15.03.2024

Penetration Testing with Wireshark

Website: <http://testphp.vulnweb.com/>

Aim:

To perform packet analysis using Wireshark

Monitoring the packet moving from PC

Procedure:

Step 1: Install Wireshark

Step 2: open Wireshark

Step 3: Choose the adapter

Step 4: Start the packet recording

Result with screenshot

Screenshot of a web browser showing the Acunetix Web Vulnerability Scanner test site at testphp.vulnweb.com/userinfo.php. The page displays user information for "vinayak (test)".

The browser toolbar includes links to Gmail, YouTube, and Maps. The address bar shows the URL. The main content area has a header "TEST and Demonstration site for Acunetix Web Vulnerability Scanner". Below it are navigation links: home, categories, artists, disclaimer, your cart, guestbook, AJAX Demo, and Logout test. On the left, a sidebar menu lists search art, browse categories, browse artists, your cart, signup, your profile, our guestbook, AJAX Demo, logout, and links to security art, PHP scanner, PHP vuln help, and Fractal Explorer.

The main content shows a form for editing user information:

Name:	vinayak
Credit card number:	4242-8998-87998-8887
E-Mail:	vks11ec@gmail.com
Phone number:	5704554554
Address:	899 india5454

An "update" button is located below the address field. A message below the form states: "You have 0 items in your cart. You visualize you cart [here](#)".

Below the browser window is a screenshot of Wireshark capturing traffic from "latest.pcapng". The selected packet is 5159, showing an HTTP POST request to "/userinfo.php" with the following details:

```
> Transmission Control Protocol, Src Port: 51792, Dst Port: 80, Seq: 1676, Ack: 8286, Len: 777
  > Hypertext Transfer Protocol
    > POST /userinfo.php HTTP/1.1\r\n
      Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7\r\n
      Accept-Encoding: gzip, deflate\r\n
      Accept-Language: en-US,en;q=0.9\r\n
      Cache-Control: max-age=0\r\n
      Connection: keep-alive\r\n
      Content-Length: 121\r\n
      Content-Type: application/x-www-form-urlencoded\r\n
      Cookie: login=test%2Ftest\r\n
      Host: testphp.vulnweb.com\r\n
      Origin: http://testphp.vulnweb.com\r\n
      Referer: http://testphp.vulnweb.com/userinfo.php\r\n
      Upgrade-Insecure-Requests: 1\r\n
      User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/122.0.0.0 Safari/537.36\r\n

```

The packet bytes pane shows the raw hex and ASCII data of the captured packet.

Wireshark - Packet 5159 - latest.pcapng

```

Upgrade-Insecure-Requests: 1\r\n
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/122.0.0.0 Safari/537.36\r\n
\r\n
[Full request URI: http://testphp.vulnweb.com/userinfo.php]
[HTTP request 4/5]
[Prev request in frame: 3329]
[Response in frame: 5205]
[Next request in frame: 5588]
File Data: 121 bytes
HTML Form URL Encoded: application/x-www-form-urlencoded
> Form item: "username" = "vinayak"
> Form item: "ucc" = "4242-8998-87998-8887"
> Form item: "uemail" = "vks11ec@gmail.com"
> Form item: "uphone" = "5704554554"
> Form item: "uaddress" = "899 india5454"
> Form item: "update" = "update"
0200 68 74 74 70 3a 2f 2f 74 65 73 74 70 68 70 2e 76 http://testphp.vulnweb.com/userinfo.php
0210 75 6c 6e 77 65 62 2e 63 6f 6d 2f 75 73 65 72 69 -Upgrade
0220 6e 66 6f 2e 70 68 70 0d 0a 55 70 67 72 61 64 65 -Insecure-Requests
0230 2d 49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 ts: 1-User-Agent
0240 74 73 3a 20 31 0d 0a 55 73 65 72 2d 41 67 65 6e t: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/122.0.0.0 Safari/537.36
0250 74 3a 20 4d 6f 7a 69 6c 6c 61 2f 35 2e 30 20 28 ko) Chrome/122.0.0.0 Safari/537.36
0260 57 69 6e 64 6f 77 73 20 4e 54 20 31 30 2e 30 3b Windows NT 10.0; Win64; x64) AppleWebKit/537.36
0270 20 57 69 6e 36 34 3b 20 78 36 34 29 20 41 70 70 .0.0 Safari/537.36
0280 6c 65 57 65 62 4c 2c 20 6c 69 6b 65 20 47 65 63 (KHTML, like Gecko) Chrome/122.0.0.0 Safari/537.36
0290 28 4b 48 54 4d 4c 2c 20 6c 69 6b 65 20 47 65 63
02a0 6b 6f 29 20 43 68 72 6f 6d 65 2f 31 32 32 2e 30 ko) Chrome/122.0.0.0 Safari/537.36
02b0 2e 30 2e 30 20 53 61 66 61 72 69 2f 35 33 37 2e .0.0 Safari/537.36
02c0 33 36 0d 0a 0d 0a 75 72 6e 61 6d 65 3d 76 69 6e 36...ur name=vinayak&ucc=4242-8998-87998-8887&ue
02d0 61 79 61 6b 26 75 63 63 3d 34 32 34 32 2d 38 39 ayak&ucc=4242-8998-87998-8887&ue
02e0 39 38 2d 38 37 39 39 38 2d 38 38 38 37 26 75 65
02f0 6d 61 69 6c 3d 76 6b 73 31 31 65 63 25 34 30 67 mail=vks11ec%40g
0300 6d 61 69 6c 2e 63 6f 6d 26 75 70 68 6f 6e 65 3d 57045545 54&uaddr
0310 35 37 30 34 35 35 34 35 35 34 26 75 61 64 64 72
0320 65 73 73 3d 38 39 39 2b 69 6e 64 69 61 35 34 35 ess=899+ india5454
0330 34 26 75 70 64 61 74 65 3d 75 70 64 61 74 65 4&update =update

```

No. 5159 - Time: 28.550914 - Source: 172.16.97.211 - Destination: 44.228.249.3 - Protocol: HTTP - Length: 631 - Info: POST /userinfo.php HTTP/1.1 (application/x-www-form-urlencoded)

Show packet bytes

Close Help

Wireshark - Packet 5159 - latest.pcapng

```

[Response in frame: 5205]
[Next request in frame: 5588]
File Data: 121 bytes
HTML Form URL Encoded: application/x-www-form-urlencoded
Form item: "username" = "vinayak"
  Key: username
  Value: vinayak
Form item: "ucc" = "4242-8998-87998-8887"
  Key: ucc
  Value: 4242-8998-87998-8887
Form item: "uemail" = "vks11ec@gmail.com"
  Key: uemail
  Value: vks11ec@gmail.com
Form item: "uphone" = "5704554554"
Form item: "uaddress" = "899 india5454"
Form item: "update" = "update"
0200 68 74 74 70 3a 2f 2f 74 65 73 74 70 68 70 2e 76 http://testphp.vulnweb.com/userinfo.php
0210 75 6c 6e 77 65 62 2e 63 6f 6d 2f 75 73 65 72 69 -Upgrade
0220 6e 66 6f 2e 70 68 70 0d 0a 55 70 67 72 61 64 65 -Insecure-Requests
0230 2d 49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 ts: 1-User-Agent
0240 74 73 3a 20 31 0d 0a 55 73 65 72 2d 41 67 65 6e t: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/122.0.0.0 Safari/537.36
0250 74 3a 20 4d 6f 7a 69 6c 6c 61 2f 35 2e 30 20 28 ko) Chrome/122.0.0.0 Safari/537.36
0260 57 69 6e 64 6f 77 73 20 4e 54 20 31 30 2e 30 3b Windows NT 10.0; Win64; x64) AppleWebKit/537.36
0270 20 57 69 6e 36 34 3b 20 78 36 34 29 20 41 70 70 .0.0 Safari/537.36
0280 6c 65 57 65 62 4b 69 74 2f 35 33 37 2e 33 36 20 leWebKit/537.36
0290 28 4b 48 54 4d 4c 2c 20 6c 69 6b 65 20 47 65 63 (KHTML, like Gecko) Chrome/122.0.0.0 Safari/537.36
02a0 6b 6f 29 20 43 68 72 6f 6d 65 2f 31 32 32 2e 30 ko) Chrome/122.0.0.0 Safari/537.36
02b0 2e 30 2e 30 20 53 61 66 61 72 69 2f 35 33 37 2e .0.0 Safari/537.36
02c0 33 36 0d 0a 0d 0a 75 72 6e 61 6d 65 3d 76 69 6e 36...ur name=vinayak&ucc=4242-8998-87998-8887&ue
02d0 61 79 61 6b 26 75 63 63 3d 34 32 34 32 2d 38 39 ayak&ucc=4242-8998-87998-8887&ue
02e0 39 38 2d 38 37 39 39 38 2d 38 38 38 37 26 75 65
02f0 6d 61 69 6c 3d 76 6b 73 31 31 65 63 25 34 30 67 mail=vks11ec%40g
0300 6d 61 69 6c 2e 63 6f 6d 26 75 70 68 6f 6e 65 3d 57045545 54&uaddr
0310 35 37 30 34 35 35 34 35 35 34 26 75 61 64 64 72
0320 65 73 73 3d 38 39 39 2b 69 6e 64 69 61 35 34 35 ess=899+ india5454
0330 34 26 75 70 64 61 74 65 3d 75 70 64 61 74 65 4&update =update

```

Value (urlencoded-form.value), 7 bytes

Show packet bytes

Result:

Thus, the packet tracing and analysis of LAN Network has been performed using wire shark tools.

EX:7 Penetration Testing with Wireshark Activity 3

Name: Vinayak Kumar Singh

Reg No: 23MCA1030

Subject: Software Testing

1.What is Ann's email address?

Ans: sneakyg33k@aol.com

```
LGR HELP  
AUTH LOGIN  
334 VXN1cm5hbWU6  
c251Ylt5Zmza0Bhb2wuY29t  
334 UGFzc3dvcnQ6  
NTU4cJAwbhHo=
```

235 AUTHENTICATION SUCCESSFUL

Decode from Base64 format

Simply enter your data then push the decode button.

VXNlcmbWU6
c25IYWt5ZzMza0Bhb2wuY29tUGFzc3dvcnQ6NTU4cjAwbHo=

i For encoded binaries (like images, documents, etc.) use the file upload form a little further down.

UTF-8 ▼ Source character set.

Decode each line separately (useful for when you have multiple entries).

Live mode OFF Decodes in real-time as you type or paste (supports only the UTF-8 character set).

◀ DECODE ▶ Decodes your data into the area below.

Username: sneakyg33k@aol.com Password: 558r00lz

2.What is Ann's email password?

Ans: Password:558r00lz

3.What is Ann's secret lover's email address?

Ans: mistersecretx@aol.com

Mr. & Mrs. D. C. COOPER - COMMERCIAL
<mistersecretx@aol.com>

4. What two items did Ann tell her secret lover to bring?

Ans: fake passport and a bathing suit.

5. What is the NAME of the attachment Ann sent to her secret lover?

Ans: secretrendezv

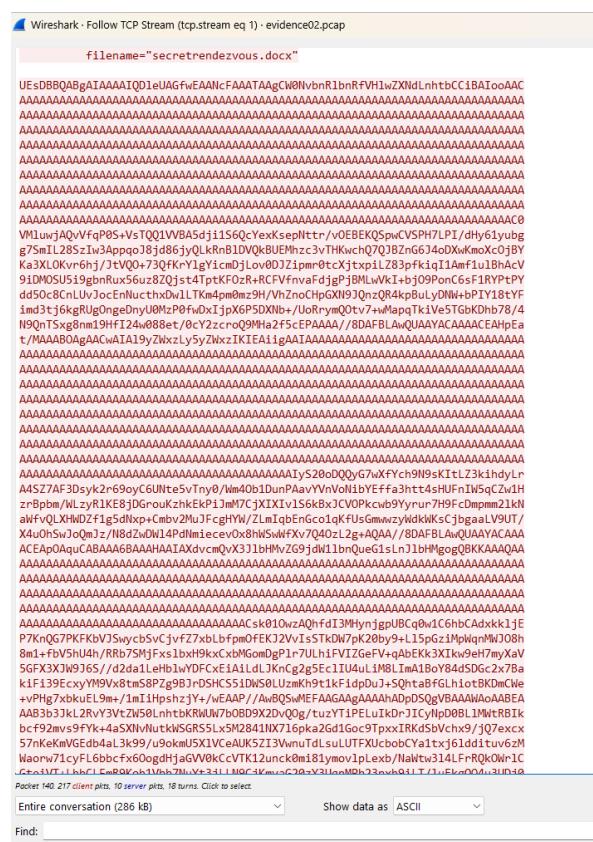
ous.docx

6. What is the MD5sum of the attachment Ann sent to her secret lover?

```
C:\Users\student\Desktop>certutil -hashfile secret.docx MD5  
MD5 hash of secret.docx:  
9e423e11db88f01bbff81172839e1923  
CertUtil: -hashfile command completed successfully.
```

Using website: https://www.motobit.com/util/base64-decoder-encoder.asp#google_vignette

Copy this code and decode the data from a Base64 string (base64 decoding)

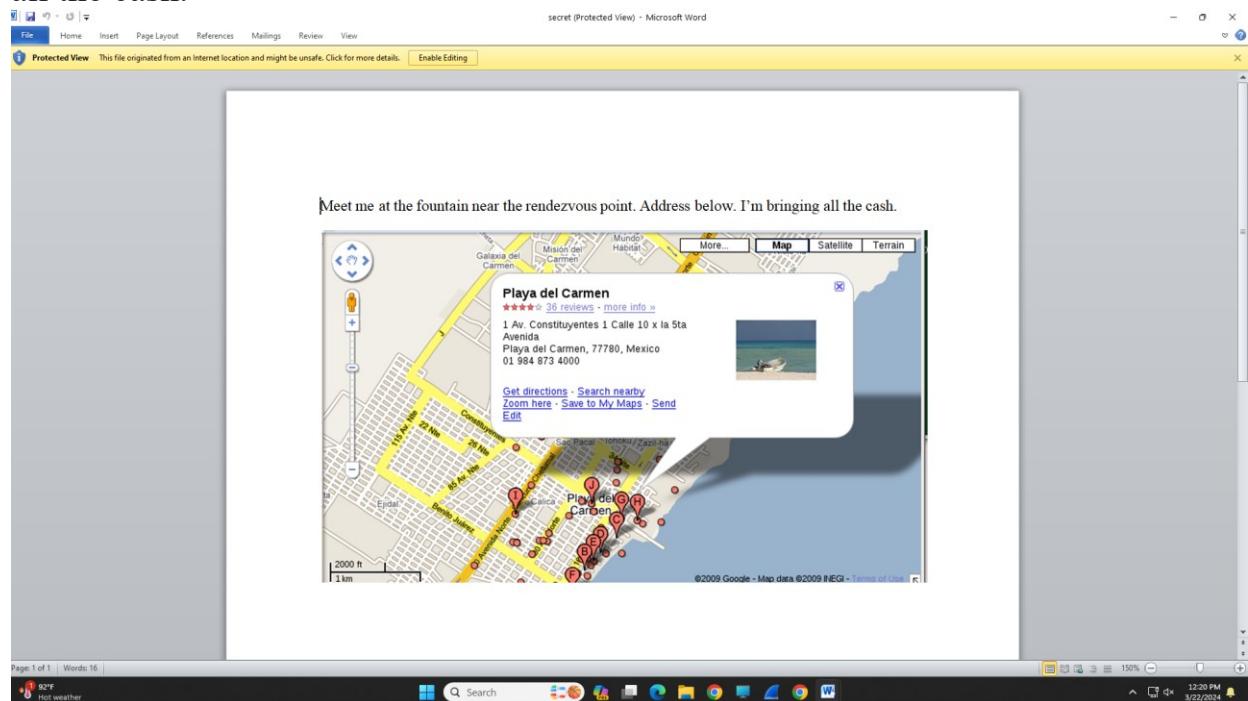


7. In what CITY and COUNTRY is their rendezvous point?

Ans: Mexico

1 Av. Constituyentes 1 Calle 10 x la 5ta Avenida Playa del Carmen, 77780, Mexico

Meet me at the fountain near the rendezvous point. Address below. I'm bringing all the cash.



8. What is the MD5sum of the image embedded in the document?

```
C:\Users\student\Desktop>certutil -hashfile image.png MD5
MD5 hash of image.png:
55ca95ea01264df9128649238b516d76
CertUtil: -hashfile command completed successfully.
```

Ex.8 Penetration Testing Activity 4

Name: Vinayak Kumar Singh

Reg No: 23MCA1030

Subject: Software Testing

1.What is the MAC address of Ann's AppleTV?

Ans: (00:25:00:fe:07:c4)

```
Ethernet II, Src: Apple_fe:07:c4 (00:25:00:fe:07:c4), Dst: CiscoLinksys_ad:57:7b (00:23:69:ad:57:7b)
  Destination: CiscoLinksys_ad:57:7b (00:23:69:ad:57:7b)
    Address: CiscoLinksys_ad:57:7b (00:23:69:ad:57:7b)
    .... ..0. .... .... .... = LG bit: Globally unique address (factory default)
    .... ..0. .... .... .... = IG bit: Individual address (unicast)
  Source: Apple_fe:07:c4 (00:25:00:fe:07:c4)
    Address: Apple_fe:07:c4 (00:25:00:fe:07:c4)
    .... ..0. .... .... .... = LG bit: Globally unique address (factory default)
    .... ..0. .... .... .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
```

2.What User-Agent string did Ann's AppleTV use in HTTP requests?

Ans: AppleTV/2.4

Search HTTP and Follow HTTP Stream Path



Wireshark · Follow HTTP Stream (tcp.stream eq 0) · evidence03.pcap

```
GET /WebObjects/MZStore.woa/wa/viewGrouping?id=39 HTTP/1.1
Accept: */*
Accept-Language: en
Accept-Encoding: gzip, deflate
Cookie: s_vi=[CS]v1|259C176A85010C29-6000010D80115D7F[CE]
User-Agent: AppleTV/2.4
If-Modified-Since: Fri, 25 Dec 2009 04:42:31 GMT
X-Apple-Store-Front: 143441-1,3
Connection: keep-alive
Host: ax.itunes.apple.com
```

3. What were Ann's first four search terms on the AppleTV (all incremental searches count)?

Ans: h, ha, hac, hack

http.request.method == "GET" && ip.dst == 66.235.132.121

Filter : http.request.uri contains

"/WebObjects/MZSearch.woa/wa/incrementalSearch?media=movie"

Wireshark · Follow HTTP Stream (tcp.stream eq 2) · evidence03.pcap

```

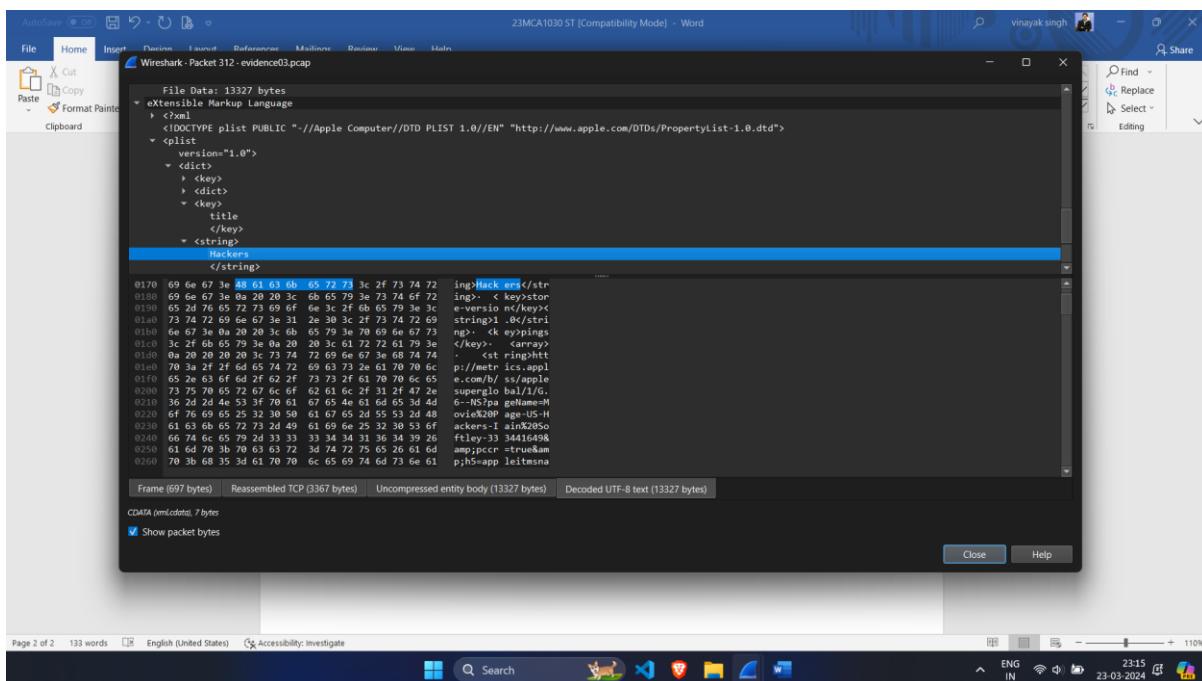
p;artistTerm=Taylor%20Hackford</string>
    <key>url-page-type</key><string>list</string>
</dict>
<dict>
    <key>type</key><string>link</string>
    <key>title</key><string>Taylor Hackford</string>
    <key>url</key><string>http://ax.search.itunes.apple.com/WebObjects/MZSearch.woa/wa/a
p;artistTerm=Taylor%20Hackford</string>
    <key>url-page-type</key><string>list</string>
</dict>
</array>
</dict>
</array>
</dict>
</plist>
GET /WebObjects/MZSearch.woa/wa/incrementalSearch?media=movie&q=hack HTTP/1.1
Accept: */*
Accept-Language: en
Accept-Encoding: gzip, deflate
Cookie: s_vi=[CS]v1|259C176A85010C29-6000010D80115D7F[CE]
User-Agent: AppleTV/2.4
X-Apple-Store-Front: 143441-1,3
Connection: keep-alive
Host: ax.search.itunes.apple.com

```

4. What was the title of the first movie Ann clicked on?

Ans: Hacker

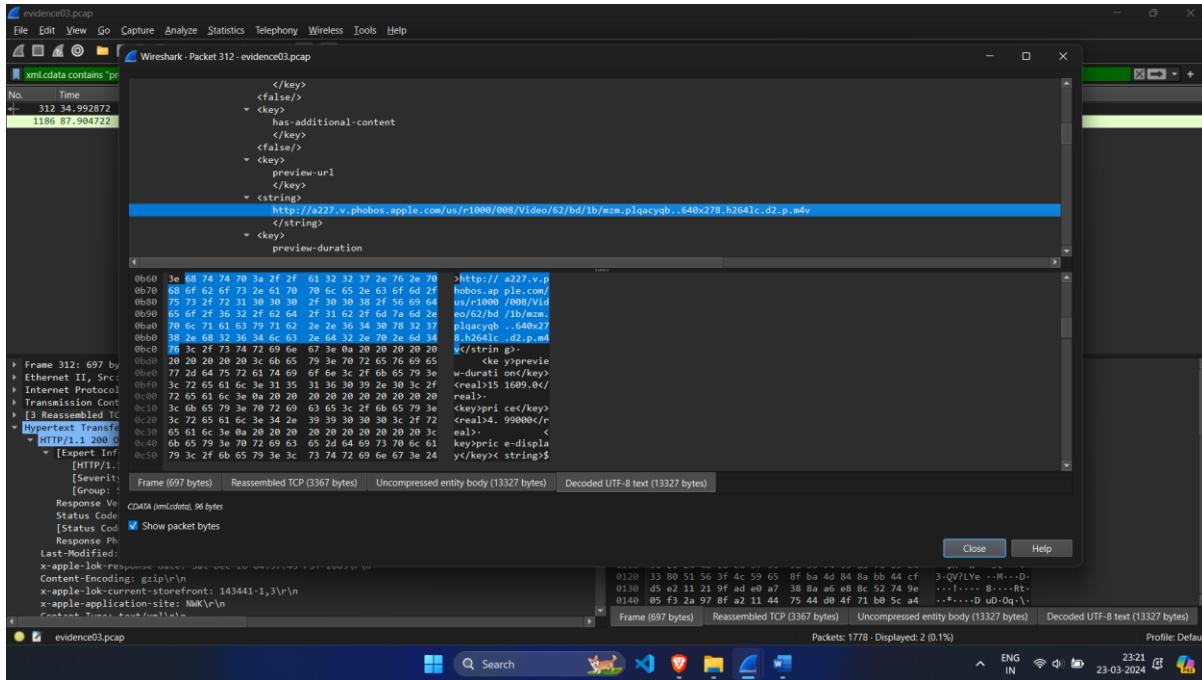
1. Search ip.dst == 66.235.132.121 and http.request.method == "GET"
2. xml.cdata contains "preview-url"
3. go to Extensible Markup Language XML and go to String



5. What was the full URL to the movie trailer (defined by “preview-url”)?

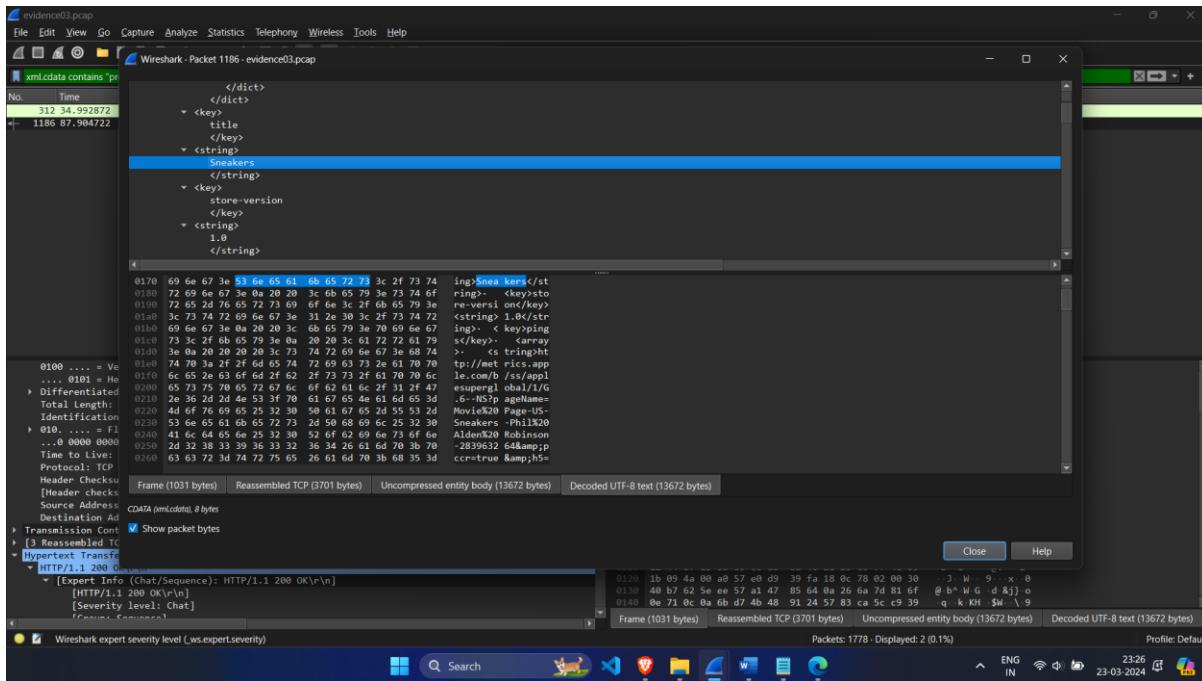
Ans:

<http://a227.v.phobos.apple.com/us/r1000/008/Video/62/bd/1b/mzm.plqacyqb..640x278.h264lc.d2.p.m4v>



6.What was the title of the second movie Ann clicked on?

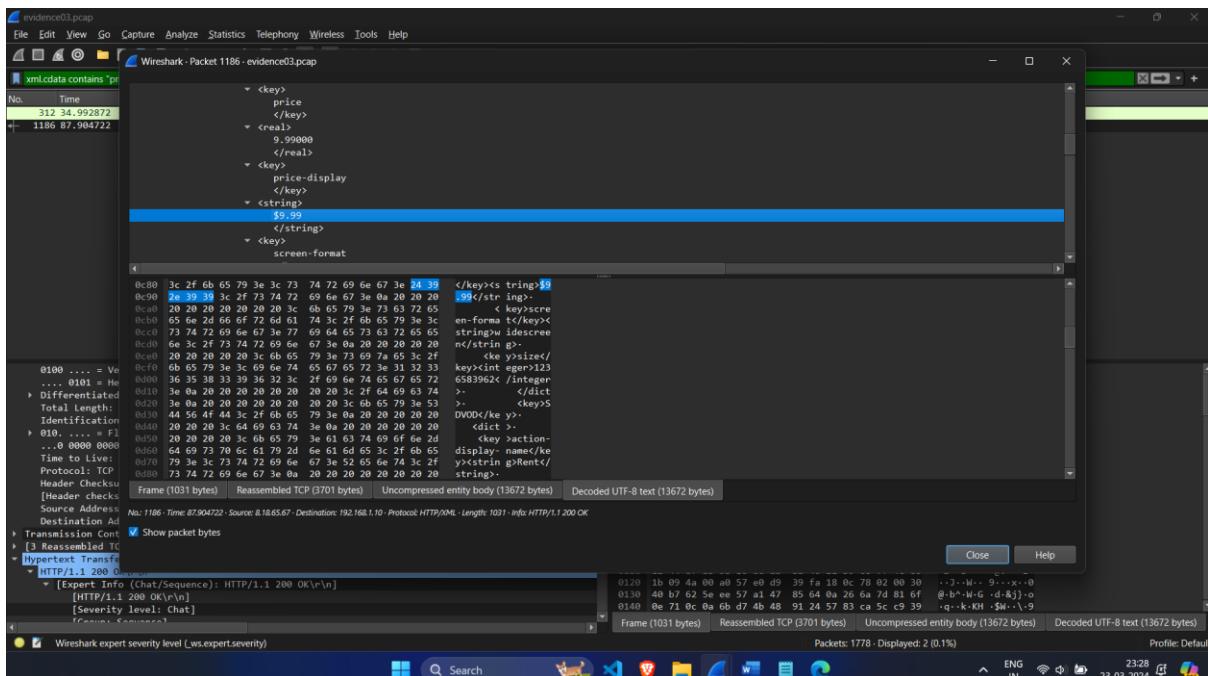
Ans: Sneakers



7.What was the price to buy it (defined by “price-display”)?

Ans: \$9.99

Search xml.cdata contains "price-display"



8.What was the last full term Ann searched for?

Ans: iknowyourewatchingme

1. http.request.uri contains "Search"
2. Follow Tcp Stream

