

PROJECT TITLE:

HEALTHKART WEBSITE PORTAL TESTING

BY:

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## **Test Plan Document for Healthkart.com**

### **Introduction**

This test plan outlines the testing approach for Healthkart.com, an e-commerce website that sells health and wellness products. The purpose of this document is to define the criteria for testing, when to use the testing approach, and when to start testing.

### **Scope**

The scope of this testing is to ensure that Healthkart.com works as expected and provides a positive user experience. The testing will include the following aspects:

- Functional testing
- Usability testing
- Performance testing
- Security testing

### **Testing Criteria**

The following are the criteria that will be used to test Healthkart.com:

#### **Functional Testing Criteria**

- Ensure that all website features are working as expected
- Validate that the search functionality is working properly
- Verify that the product pages display accurate information
- Confirm that the checkout process is smooth and functional
- Test the user registration and login functionality

### Usability Testing Criteria

- Evaluate the overall design and user interface of the website
- Verify that the website is easy to navigate and use
- Test the website's accessibility for users with disabilities

### Performance Testing Criteria

- Evaluate the website's load times and responsiveness
- Test the website's ability to handle traffic spikes
- Check that the website performs well across different devices and browsers

### Security Testing Criteria

- Verify that the website uses secure protocols (HTTPS) for data transmission
- Test the website's vulnerability to hacking attempts
- Confirm that user data is protected and secure

### Testing Approach

The testing approach for Healthkart.com will be a combination of manual and automated testing. The testing team will use a variety of tools and techniques to ensure that the website meets the testing criteria. The following are the steps in the testing approach:

1. Test planning and design
2. Test environment setup
3. Test execution and reporting
4. Test closure and analysis

### **When to Use this Testing Approach**

This testing approach should be used for the following scenarios:

- Before launching the website
- After major updates or changes to the website
- Regularly, to ensure ongoing website quality and performance

### **When to Start Testing**

Testing should begin as early as possible in the website development process. The testing team should collaborate with the development team to ensure that testing is integrated into the development process.

### **Conclusion**

This test plan outlines the testing approach for Healthkart.com, including the testing criteria, approach, and when to use and start testing. By following this plan, the testing team will be able to ensure that Healthkart.com is functional, usable, performant, and secure, providing a positive user experience.

## 5) Types of Testing Performed

### i. Robustness Testing:

Robustness testing is a type of testing that is performed to assess the ability of a system or component to function correctly when it is subjected to invalid or unexpected inputs, or when it is operating outside of its specified operating conditions.

- The purpose of robustness testing is to identify the parts of the system that are most vulnerable to failure and to determine how the system can be made more resistant to failure.
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### ii. Decision Table Testing:

Decision table testing is a software testing technique used to test system behavior for different input combinations. This is a systematic approach where the different input combinations and their corresponding system behavior (Output) are captured in a tabular form. That is why it is also called as a Cause-Effect table where Cause and effects are captured for better test coverage.

- A Decision Table is a tabular representation of inputs versus rules/cases/test conditions.
- It is a very effective tool used for both complex software testing and requirements management.
- A decision table helps to check all possible combinations of conditions for testing and testers can also identify missed conditions easily. The conditions are indicated as True(T) and False(F) values.

### iii. Unit Testing:

Unit Testing is a software testing technique by means of which individual units of software i.e. group of computer program modules, usage procedures, and operating procedures are tested to determine whether they are suitable for use or not. It is a testing method using which every independent module is tested to determine if there is an issue by the developer himself.

- Unit testing is defined as a type of software testing where individual components of a software are tested.
- The objective of Unit Testing is:
  1. To isolate a section of code.
  2. To verify the correctness of the code.
  3. To test every function and procedure.
  4. To fix bugs early in the development cycle and to save costs.
  5. To help the developers to understand the code base and enable them to make changes quickly.
  6. To help with code reuse.

### iv. Equivalence Testing and Boundary value testing:

**Boundary testing** is the process of testing between extreme ends or boundaries between partitions of the input values.

- So these extreme ends like Start- End, Lower- Upper, Maximum- Minimum, Just Inside-Just Outside values are called boundary values and the testing is called “boundary testing”.

**Equivalence Partitioning or Equivalence Class Partitioning** is type of black box testing technique which can be applied to all levels of software testing like unit, integration, system, etc. In this technique, input data units are divided into equivalent partitions that can be used to derive test cases which reduces time required for testing because of small number of test cases.

- It divides the input data of software into different equivalence data classes.
- You can apply this technique, where there is a range in the input field.

## **v. Performance Testing:**

Performance Testing is a software testing process used for testing the speed, response time, stability, reliability, scalability, and resource usage of a software application under a particular workload. The goal of Performance Testing is not to find bugs but to eliminate performance bottlenecks. Performance Testing is done to provide stakeholders with information about their application regarding speed, stability, and scalability.

- Determines whether the application responds quickly
- Determines the maximum user load the software application can handle.
- Determines if the application is stable under varying loads

## LOGIN

OBJECTIVE: To Test the functionality of LOGIN module.

PRE-REQUISITE: Load the website <https://www.healthkart.com/>.

### STEPS:

- i) Load the website.
- ii) Click “Login” Button.
- iii) Enter your Mobile number and validate OTP.
- iv) Now Login.

### DECISION TABLE

C1: Mobile Number should contain 10 digits(India number). C2 : Enter OTP sent to your mobile number through SMS. C3 : Enter OTP received through call.

A1: Login

Successful. A2: Login

Unsuccessful.

Condition	R1	R2	R3	R4	R5
C1	F	T	T	T	T
C2	-	F	T	F	T
C3	-	F	F	T	T
Rules	4	1	1	1	1
Action	R1	R2	R3	R4	R5
A1			x	x	x
A2	x	x			

S.No.	TEST CASE ID	TEST DATA(Input)	EXPECT ED RESULT	ACTUAL RESULT	STATUS
1.	TC001	58960	Login Unsuccessful.	Login Unsuccessful.	Pass.
2.	TC002	76974w,567	Login Unsuccessful.	Login Unsuccessful.	Pass.
3.	TC003	8479500605 Entering wrong OTP.(Received:440532 Entered:857654)	Login Unsuccessful.	Login Unsuccessful.	Pass.
4.	TC004	6987858790 OTP:757979	Login Successful.	Login Successful.	Pass.



5.	TC005	4456350968 OTP:485980	Login Successful.	Login Successful.	Pass.
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## SIGNUP

**OBJECTIVE:** To check the functionality of SIGNUP Module.

**PRE-REQUISITE:** Consumer has to LOGIN to the site first by entering their Mobile Number and Validating OTP.

### STEPS:

- i) After a Successful Login, Client is directed to “Sign Up” Page.
- ii) Client has to fill their details.
- iii) Click “Proceed”

Button. **DECISION**

**TABLE 2**

C1: Name should not exceed 50 letters and should contain only alphabets. C2: DOB -> dd/mm/yyyy (1-31,1-12,1940-2080).

C3: Gender -> Choose anyone of the Radio Button (Male,Female,Others). C4: Valid E-Mail ID.

A1: Registration Done.

A2: Fill the fields according to constraints and all fields are mandatory.

Condition	R1	R2	R3	R4	R5
C1	F	T	T	T	T
C2	-	F	T	T	T
C3	-	-	F	T	T
C4	-	-	-	F	T
Action	R1	R2	R3	R4	R5
A1					X
A2	X	X	X	X	

TEST MATRIX TABLE 2

S.No.	TEST CASE ID	TESTDATA	EXPECTED RESULT	ACTUAL RESULT	STATUS
1.	TC006	Leaving "Name" Field blank.	Can't Proceed Further.	Can't Proceed Further.	Pass.
2.	TC007	Name: as#34nknrk	Can't Proceed further.	Can't proceed further.	Pass.
3.	TC008	Name: SImrknnkfnnkn Rjennjjbgjggbjbf Ndntjnnnknknyttjtte	Can't Proceed Further.	Signed Successfully.	Fail.
4.	TC009	Name: Rafkkt DOB: 0-3-1980	Wrong input Can't Proceed further.	Wrong input	Pass.
5.	TC010	Name: Rknjjnd DOB: 29-02-2016	Proceed further	Proceed further to enter "Gender"	Pass.
6.	TC011	Name: TDFHK DOB: 12-01-2000 Gender: Not choosing Radiobutton.	Can't Proceed further.	Signed Successfully.	Fail.
7.	TC012	Name: urjbhj DOB: 13-09-2006 Gender: Male E-mail: Leaving blank.	Can't Proceed further.	Signed Successfully	Fail.
8.	TC013	Name : uwdujcb DOB: 13-05-2004 Gender: Female E-Mail: uhhueu@gmail.com	Proceed Further. Signed Successfully	Signed Successfully.	Pass.

## AVAILABILITY CONDITION

OBJECTIVE: To Check the availability of the Products.

PRE-REQUISITE: Load the website. Product availability can also be checked without

Login too. STEPS:

- i) Load the Website.
- ii) Click “Search” Bar.
- iii) Search the products you like to

purchase. DECISION TABLE 3

C1: “Search Product” input is valid. A1: No Products available.

A2: Display products based on the input given.

Condition	R1	R2
C1	F	T
Rule	1	1
Action	R1	R2
A1	X	
A2		X

TEST MATRIX TABLE 3

S.No.	TEST CASE ID	TESTDATA	EXPECTED RESULT	ACTUAL RESULT	STATUS
1.	TC014	1234dsz32w	No Products Available.	No Products Available. Search Instead WoW 1234 Biotin.	Pass.

2.	TC015	Samsung s12	No Product Available.	No Search Found.	Pass.
3.	TC016	Himalaya	Products Available.	Products listed	Pass.

## ADDRESS

**OBJECTIVE:** To Check whether the “Address” is saved or not.

**PRE-REQUISITE:** Client should click “BUY” option of a product. Then the page will be loaded to Address Page.

### STEPS:

i) Client should enter his/her address.

AREA AND STREET.

CITY

STATE

MOBILE NUMBER

E-MAIL

PINCODE.

ii) All fields are mandatory.

iii) He/She should save the

address. **DECISION TABLE 4**

C1: Valid Area and Street name.

C2: “City” input based Pin code entered.

C3: “State” input based on Pin Code entered. C4: Mobile Number should contain 10 numbers. C5: Valid “e-Mail” should be provided.

C6: “Pin Code” should be valid and should contain 6 numbers.

A1: Address saved successfully. A2: Re-enter Valid Address.

Condition	R1	R2	R3	R4	R5	R6	R7
C1	F	T	T	T	T	T	T
C2	-	F	T	T	T	T	T
C3	-	-	F	T	T	T	T
C4	-	-	-	F	T	T	T
C5	-	-	-	-	F	T	T
C6	-	-	-	-	-	F	T
Rule	32	16	8	4	2	1	1
Action							
A1							X
A2	X	X	X	X	X	X	

TEST MATRIX TABLE 4

S.No.	TEST CASE ID	TESTDATA	EXPECT ED RESULT	ACTUAL RESULT	STATUS
1.	TC017	Leaving area and street field empty.	Fill Area and Street Field.	Fill Area and Street Field.	Pass.
2.	TC018	Area and Street: #123,Karunya Street, Anna Nagar. City: Chennai. State: Madhya Pradesh.	Incorrec t Address .	Incorrec t Address .	Pass.
3.	TC019	Area and Street: #123,Karunya Street, Anna Nagar,Chennai. City: Coimbatore. State: Tamil Nadu. Pincode: 641001 Mobile : 8858579684 E-Mail: 123@gmail.com	Enter valid Area and Street name.	Address Saved successfully .	Fail.
4.	TC020	Area and Street: #123,Karunya Street, Anna Nagar,Chennai. City: Coimbatore. State: Tamil Nadu. Pincode: 641001	Enter e-mail to save address.	Enter e-mail to save address.	Pass.
5.	TC021	Area and Street: #123,Karunya Street, Anna Nagar,Chennai. City: State: Pincode: 6410010	Invalid Pincod e	Can't exceed more than 6 numbers.	Pass.
6.	TC022	Area and Street: #123,Karunya Street, Anna Nagar,Chennai. City: State: Pincode: #646a	Invalid Pincod e	Can't write special characters, and alphabets in the field.	Pass.

7.	TC023	Area and Street: #123,Bharathi Colony, Big Bazaar Street. Peelamedhu. City: Coimbatore. State: Tamil Nadu. Pincode: 641004	Address Saved Successfully	Address Saved Successfully	Pass.
		Mobile : 8858579684 E-Mail: 123@gmail.com			

## PAYMENT

### i) CREDIT/DEBIT CARD

OBJECTIVE: To test the payment functionality using credit/debit card.

PRE-REQUISITE: Client should have proceeded with payment and clicked “CREDIT/DEBIT CARD” option. STEPS:

- i) Choose a product.
- ii) Click “BUY NOW” option.
- iii) Fill your address page.
- iv) Proceed with Payment.
- v) Click Credit/Debit card option.
- vi) After entering credentials page will be directed to bank gateway where client have to enter his/her OTP.
- vii) After verifying OTP, the payment is successfully

done. DECISION TABLE 5

C1: Card Holder name is valid. C2: “CVV” is valid.  
C3: “Expiry Date/Month” is valid. C4: “OTP” is valid.

A1: Payment Successfully.

A2: Payment Unsuccessful.

Condition	R1	R2	R3	R4	R5
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C1	F	T	T	T	T
C2	-	F	T	T	T
C3	-	-	F	T	T
C4	-	-	-	F	T
RULES	8	4	2	1	1
ACTION					
A1					X
A2	X	X	X	X	

TEST MATRIX TABLE 5

S.No.	TEST CASE ID	TESTDATA	EXPECTED RESULT	ACTUAL RESULT	STATUS
1	TC024	CardHolder name : @3ie CCV : 567 Expiry Date: 09/24 OTP:3456	Payment Unsuccessful.	Can't proceed after Name.	Pass
2	TC025	CardHolder name : Washim CCV : 567 Expiry Date: 09/20 OTP:3456	Payment Unsuccessful.	Can't proceed after Expiry Date.	Pass
3	TC026	CardHolder name : Wjnsj CCV : 56 Expiry Date: 09/24 OTP:3456	Payment Unsuccessful.	Enter valid CVV.	Pass
4	TC027	CardHolder name : Washim CCV : 563 Expiry Date: 09/24 OTP:3456	Payment successful.	Payment done	Pass

ii) BHIM UPI

OBJECTIVE: To Test the functionality of payment using UPI.

PRE-REQUISITE: Client should have proceeded with payment and clicked “CREDIT/DEBIT CARD” option. STEPS:

- i) Choose a product.
- ii) Click “BUY NOW” option.
- iii) Fill your address page.
- iv) Proceed with Payment.
- v) Click UPI card option.
- vi) Client will be directed to UPI app or Client has to enter his/her UPI ID.
- vii) After entering UPIN, the payment is successfully done.

DECISION

TABLE 6 C1:

Valid UPI ID.

C2: Valid Upin.

A1: Payment Success.

A2: Payment  
Unsuccess.

Condition	R1	R2	R3
C1	F	T	T
C2	-	F	T
Rule	2	1	1
Action			
A1			X
A2	X	X	

TEST MATRIX TABLE 6

S.No.	TEST CASE ID	TESTDATA	EXPECT ED RESULT	ACTUA L RESULT	STATUS
1	TC028	UPI ID : skoko@rnedjs n UPI PIN: 2309	Invalid UPI ID	Wrong UPI ID	Pass
2	TC029	UPI ID : skoko@okicici UPI PIN: 2309	Payment Done	Payment confirme d	Pass

3	TC030	UPI ID : skoko@oksbi UPI PIN: 230910	Payment Done	Payment Confirmed	Pass
4	TC031	UPI ID : skoko@oksbi	Invalid Pin	Payment Failed	Pass
		UPI PIN: 230@IE			

### iii) NETBANKING

**OBJECTIVE:** To test the functionality of payment using NETBANKING.

**PRE-REQUISITE:** Client should have proceeded with payment and clicked

“NETBANKING” option. **STEPS:**

- i) Choose a product.
- ii) Click “BUY NOW” option.
- iii) Fill your address page.
- iv) Proceed with Payment.
- v) Click “NETBANKING” option.
- vi) Client will be directed to Banking website and Client has to enter his/her username and password.
- vii) The payment is successfully done.

### DECISION TABLE 7

C1: Click “NETBANKING”.

C2: Enter valid  
username.

C3: Enter valid  
password.

A1: Direct to Banking

Website. A2: Payment  
successful.

A3: Payment Unsuccessful.

Condition	R1	R2	R3	R4
C1	F	T	T	T
C2	-	F	T	T
C3	-	-	F	T
Rule	4	2	1	1

Action				
A1		X	X	X
A2				X
A3	X	X	X	

TEST MATRIX TABLE 7

S.No.	TEST CASE ID	TESTDATA	EXPECT ED RESULT	ACTU AL RESULT	STATUS
1	TC032	Username: ejrnsaj@1344 Password: @k4imdk	Payment done.	Payment done	Pass
2	TC033	Username: - Password:SWNJ a	Invalid Username	Payment Failed	Pass
3	TC034	Username: ejrnsaj@1344 Password: @k4umdl (Correct Password: @k4umdk).	Wrong Password	Payment Failed.	Pass

iv) CASH ON DELIVERY (COD)

OBJECTIVE: To test the functionality of payment using CASH ON DELIVERY.

PRE-REQUISITE: Client should have proceeded with payment and clicked “COD”

option. STEPS:

- i) Choose a product.
- ii) Click “BUY NOW” option.
- iii) Fill your address page.
- iv) Proceed with Payment.
- v) Click “COD” option.
- vi) Client have click to “Accept the terms and condition” checkbox and “Confirm the Order” option to confirm the order.
- vii) The order is confirmed and eligible for

COD. DECISION TABLE 8

C1: Click “COD”.

C2: Accept the “Terms and Conditions”.

C3: Confirm the order.

A1: Order confirmed.

A2: Order  
Unconfirmed.

Condition	R1	R2	R3	R4
C1	F	T	T	T
C2	-	F	T	T
C3	-	-	F	T
Rules	4	2	1	1
Action				
A1				X
A2	X	X	X	

TEST MATRIX TABLE 8

S.No.	TEST CASE ID	TESTDATA	EXPECTED RESULT	ACTUAL RESULT	STATUS
1	TC035	Not Clicking COD option.	Order unconfirmed.	Payment not done.	Pass.
2	TC036	Clicked COD option. Unchecked the TERMS AND CONDITIONS box.	Order unconfirmed.	Accept the TERMS AND CONDITIONS	Pass.
3	TC037	Clicked COD Checked the Terms and Condition box. Unchecked "CONFIRM ORDER" box.	Order unconfirmed.	Check the "CONFIRM ORDERBOX".	Pass.
4	TC038	Clicked COD Checked the Terms and Condition box. Checked "CONFIRM	Order confirmed	Order confirmed	Pass.



		ORDER” box.			
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## SOFTWARE TESTING

TESTING TOOL: -

APACHE JMETER

**What is APACHE JMETER:-**

1. An Open source performance testing tool

- A performance testing tool that is available as open source.

2. It is purely based on the java

- The tool is built using only Java.

3. Not require any purchase or licensing cost

- There is no cost associated with purchasing or licensing the tool.

4. Apache JMeter is a testing tool used for analyzing and measuring the performance of different software services and products.

- The tool is primarily used to analyze and measure the performance of various software services and products.

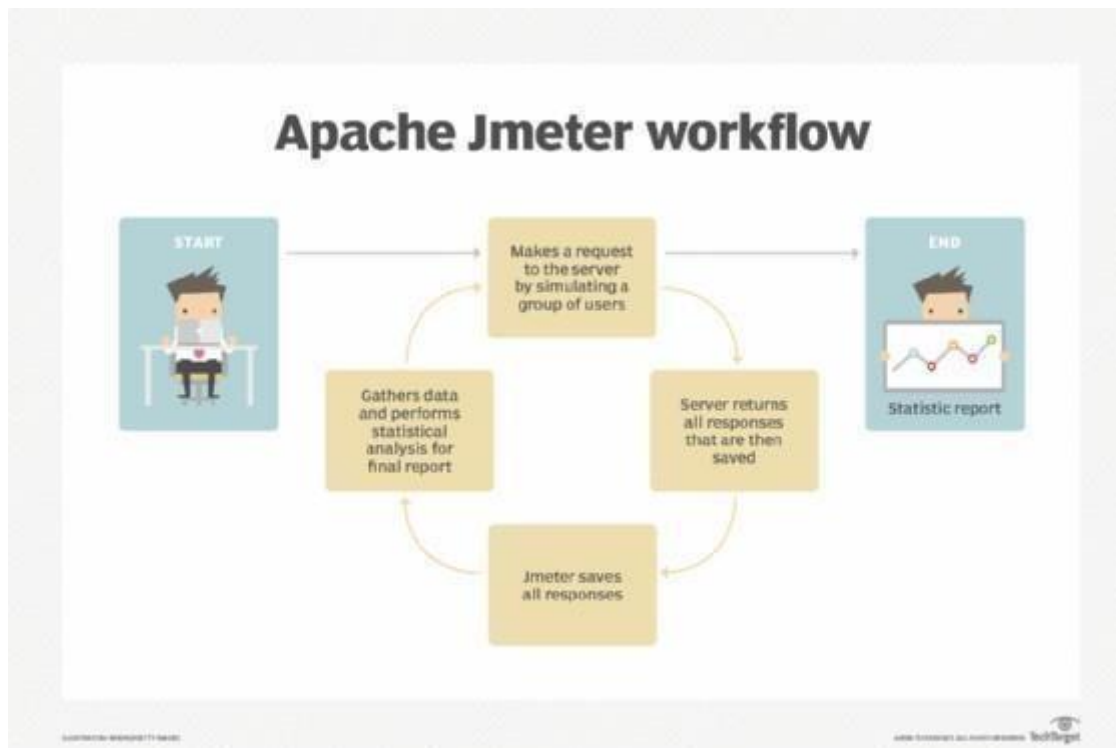
5. It is used to execute performance testing, load testing and functional testing of web applications

- Apache JMeter can be used to perform performance testing, load testing, and functional testing of web applications.

## How does JMeter perform Testing :-

**The testing procedure of JMeter involves the following steps:**

1. JMeter constructs a request and forwards it to the server.
2. After receiving responses from the server, JMeter accumulates them and presents the details in a graphical representation like charts or graphs.
3. JMeter handles the response received from the server.
4. JMeter produces the test results in various formats, including text and XML, to facilitate data analysis by the tester.



## What can u test in the jmeter

Apache j-meter enables to perform functional , load ,performance and regression tests on an application:

**Performance testing** :- It is an non functional testing to determine the system responsiveness such as:

Speed :how fast Stability :

how long Scalability : how

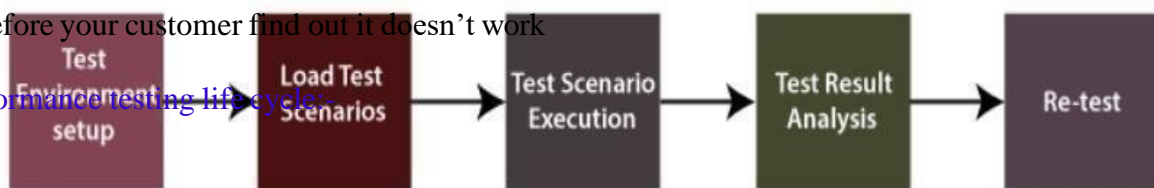
much

Reliability : how often .....and many more.

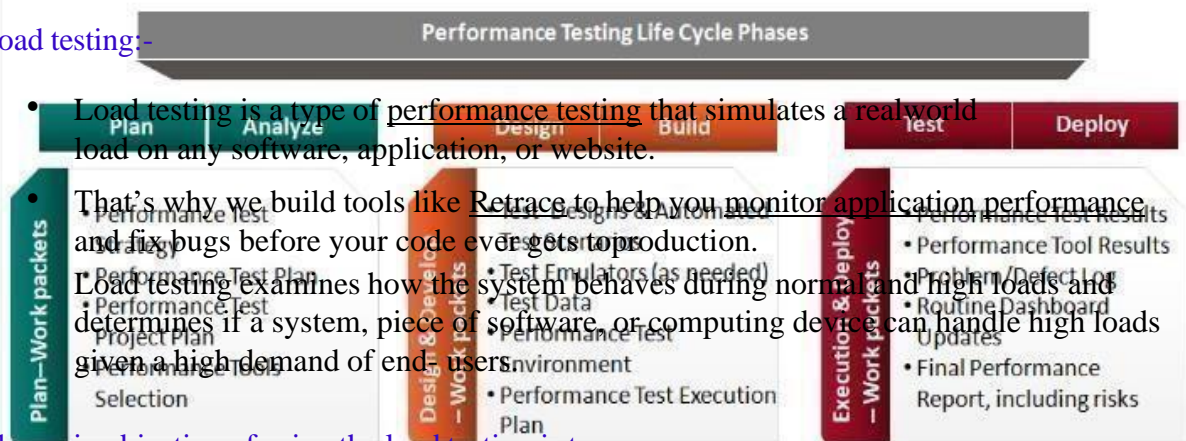
**Purpose of the performance testing is:-** It is to ensure that your applications works under real-world loads

before your customer find out it doesn't work

Performance testing life cycle:-



Load testing:-



The main objective of using the load testing is to :-

- The load testing is used to perform the maximum quantity of software applications without important performance breakdown.
- It is used to identify the total count of users that can access the application simultaneously.

Load testing process :-

Can load and performe test many different server types :- Web- HTTP, HTTPS

SOAP / REST FTP

DATABASE VIA JDBC

Native commands or shell scripts ..... etc and many more

### JMeter Features

- Being an open source software, it is freely available.
- It has a simple and intuitive GUI.
- JMeter can conduct load and performance test for many different server types – Web - HTTP, HTTPS, SOAP, Database via JDBC, LDAP, JMS, Mail - POP3, etc.
- It is a platform-independent tool. On Linux/Unix, JMeter can be invoked by clicking on JMeter shell script. On Windows, it can be invoked by starting the jmeter.bat file.
- It has full Swing and lightweight component support (precompiled JAR uses packages javax.swing.\* ).

- JMeter store its test plans in XML format. This means you can generate a test plan using a text editor.
- Its full multi-threading framework allows concurrent sampling by many threads and simultaneous sampling of different functions by separate thread groups.
- It is highly extensible.
- It can also be used to perform automated and functional testing of the applications.

**Some of the advantages of JMeter include:-**

- **Open-source** :- JMeter is an open source software. This means that it can be downloaded free of cost. The developer can use its source code, can modify and customize it as per their requirement.
- **User-friendly** :- JMeter has a comprehensive GUI, which helps to create test plan and configure the elements. Adding elements is also easy. You just have to right-click on the tree scenario and add what you need to do.
- **Support various testing approach** :- JMeter supports various testing approach like Load Testing, Distributed Testing, and Functional Testing, etc.
- **Framework** :- JMeter is a multi-threading framework which allows concurrent and simultaneous sampling of different functions by many or separate thread groups.
- **Support** :- Basically it is designed for performance testing, but also supports other non-functional tests such as Stress Testing, Distributed Testing, Web service testing, etc by creating test plans.

- ❑ **Comprehensive Documentation :-** This is one of the most important things to be highlighted. Because of its robust documentation, user can have a clear idea on each and every step, starting from scratch including installation and configuration of the test settings and generating final report.
- ❑ **Recording :-** JMeter allows user to record HTTP/HTTPS to create Test plan using Recording facility. We use Proxy Server that allows JMeter to watch and record your actions while you browse your web application with your normal browser
- ❑ **Reporting :-** JMeter supports dashboard report generation. A host of reports are generated through JMeter which helps the user to understand Performance test execution results.
- ❑ **Support various server types :-** JMeter is highly extensible and capable to load the performance test in different server types:

Web:-HTTP,HTTPS,SOAP,

Database:-JDBC,LDAP,JMS,and Mail:

POP3.

## WORKING OF TESTING TOOL WITH APPLICATION

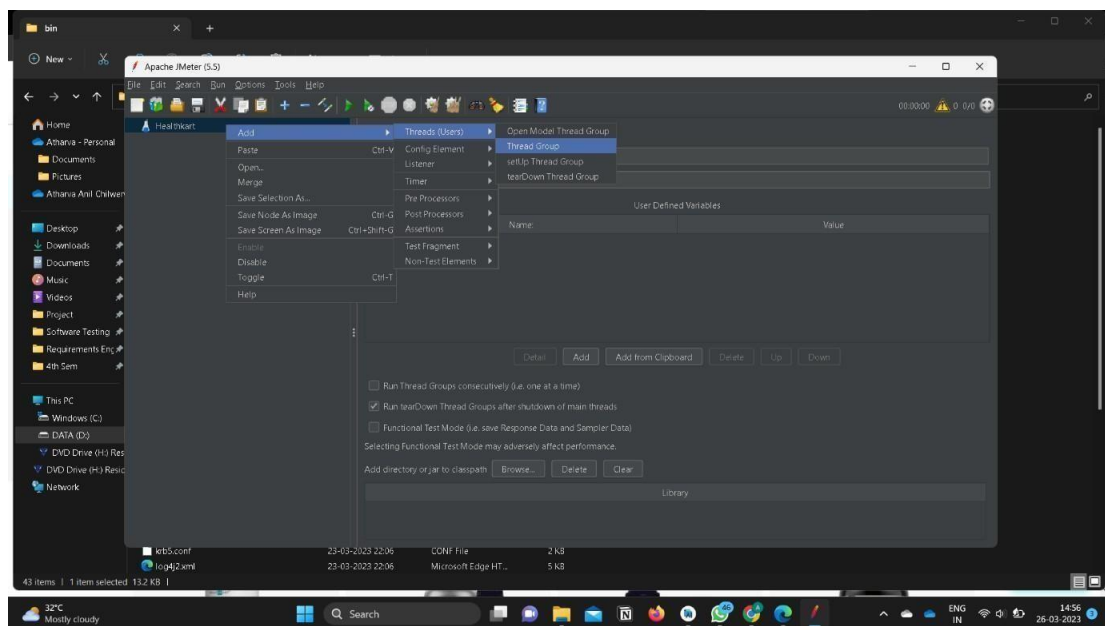
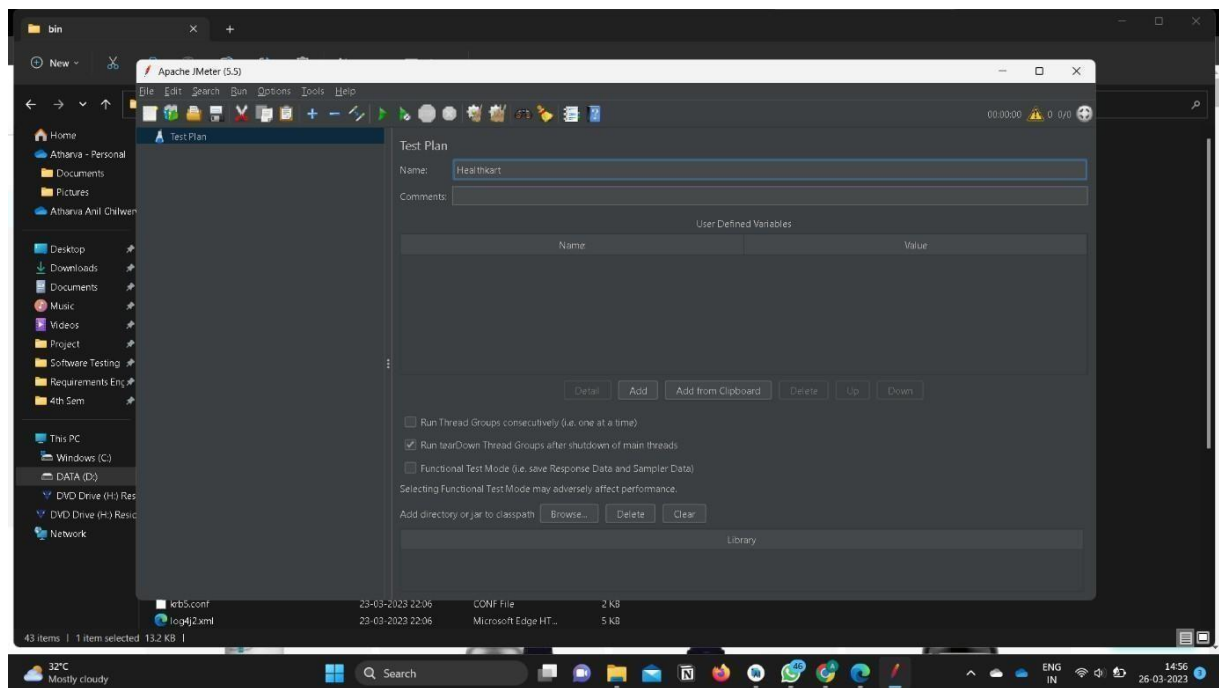
### THEORY (WORKING OF TOOL)

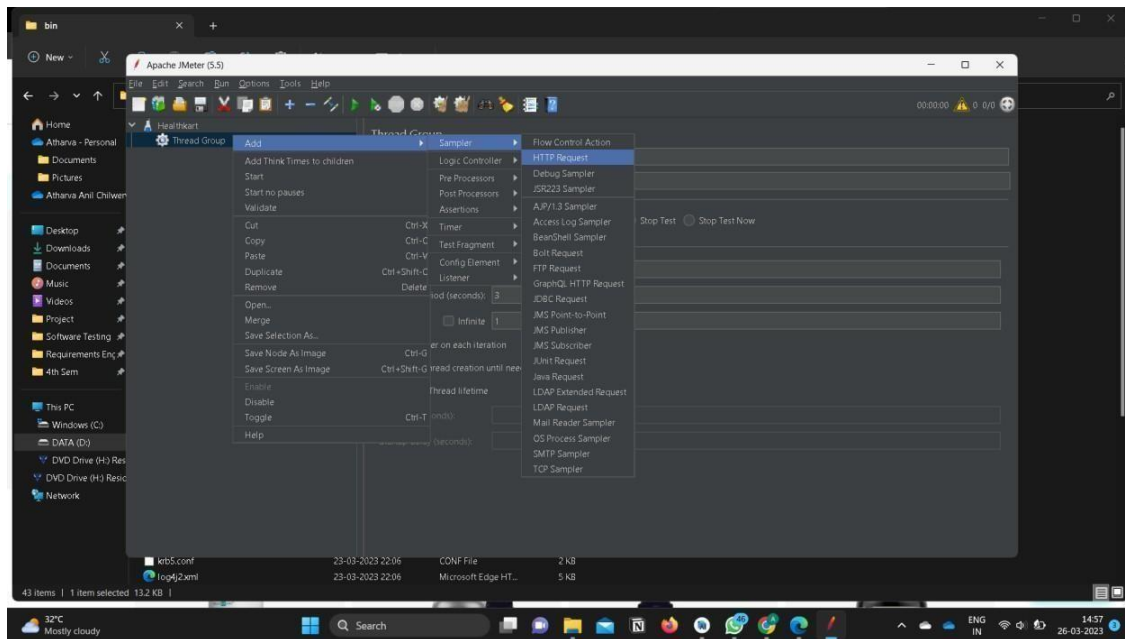
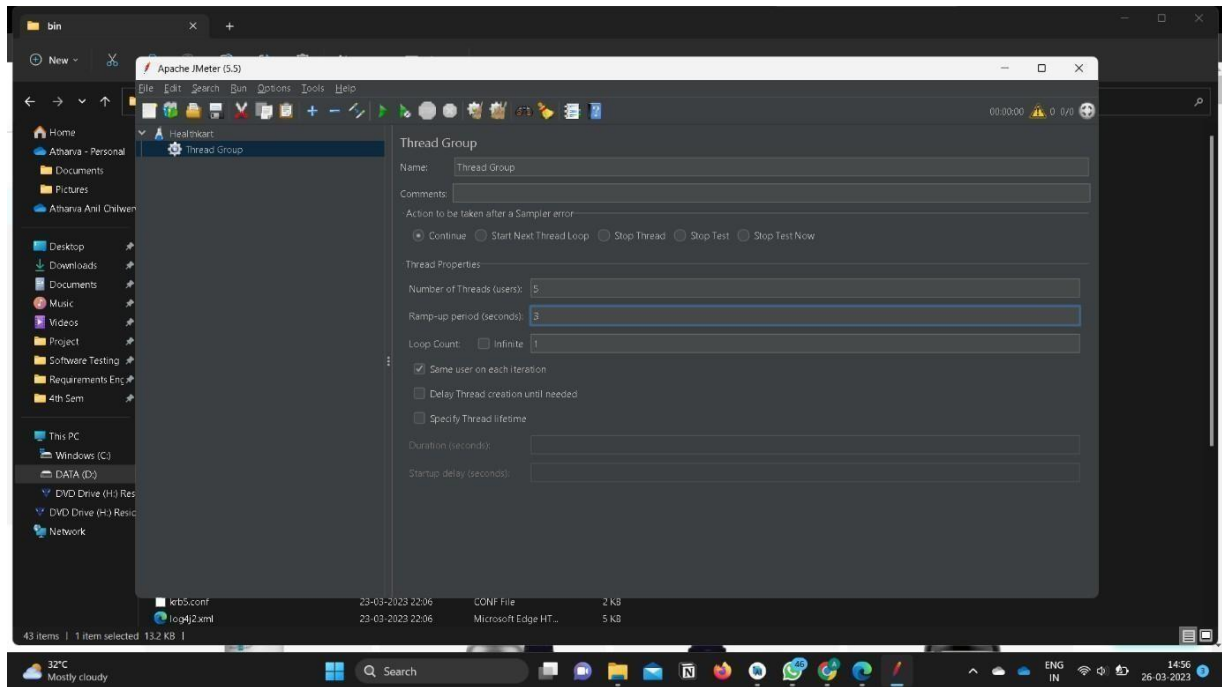
- First install the apache j meter testing tool
- After select the application to be tested
- The next step is to create a test plan
- After creating a test plan we can rename it according to Our conveniences.

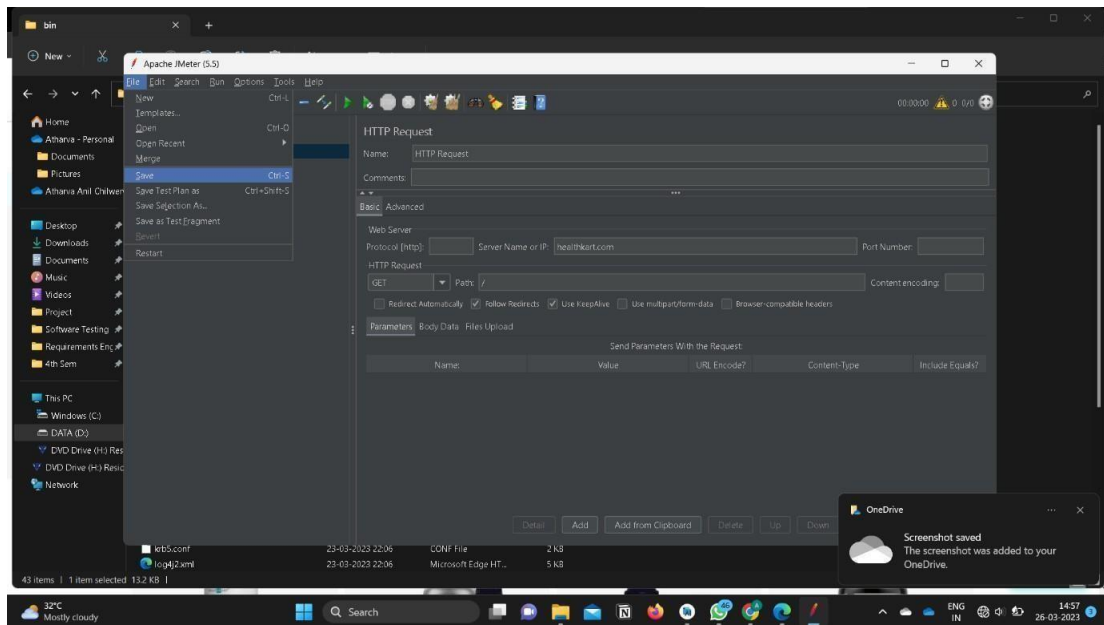
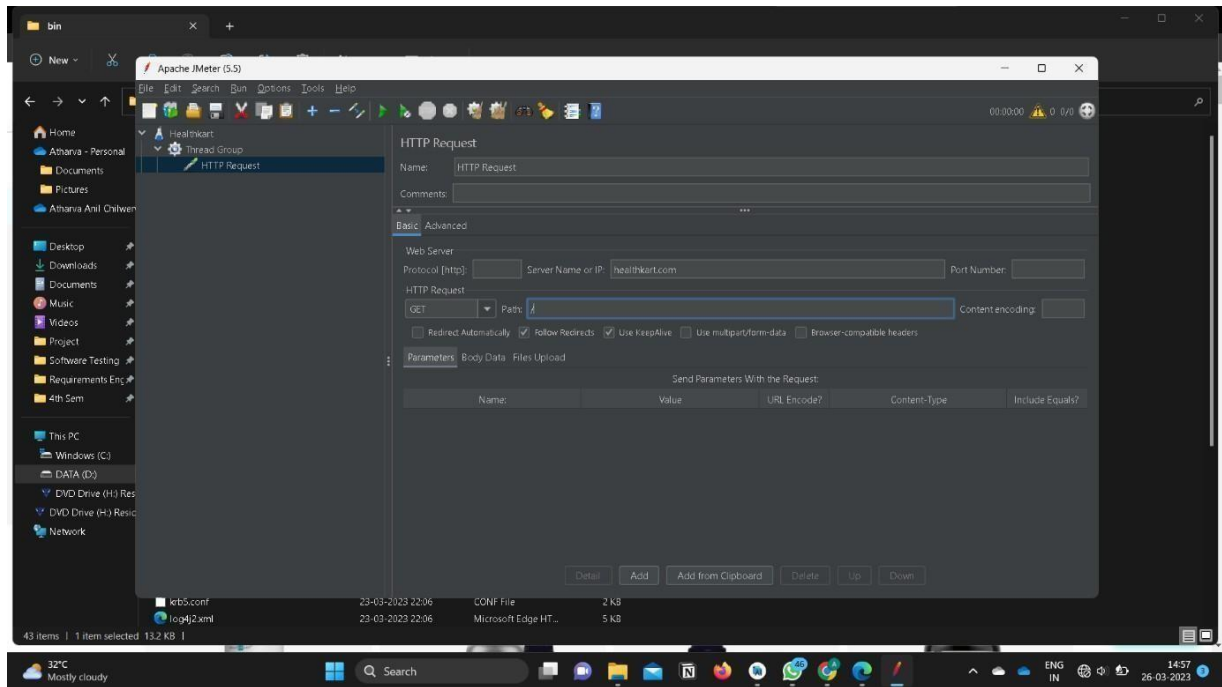
- After creating a test plan the immediate step is to create threads
- Threads are nothing but the no.of users
- The next step would be selecting the no.of threads, ramp up period and also the loop count and the step to be taken after an error occurs in the process
- After that select and take the http request from the test plan
- Add the path and the http address of the website that is going to be tested
- The path would be / for the application
- After, to view the testing results we need to select the listeners
- Listeners are nothing but the view of results
- These can be in various forms
- Like viewing results in table viewing results ,graph viewing results in tree
- Once all this process is finished, the next step will be saving the test plan
- After saving the plan we have to run it
- The running time (execution time) will be displaying at the top right corner.
- The following step will be checking the results in various forms
- These various forms include graph, tree and table
- The green icon in results section tells us that the test is passed and ok
- And the red color shows that something is not ok and need to be rectified
- After that we need to add assertions to the test plan
- Assertions are the update and checkup on the things that are happening
- Add duration assertion to the plan to know further details
- Given some amount of time in milliseconds and save
- And then add assertion results in the listeners And run the program and check the results
- Some might pass the test and some might not It depends on the nature of particular application.



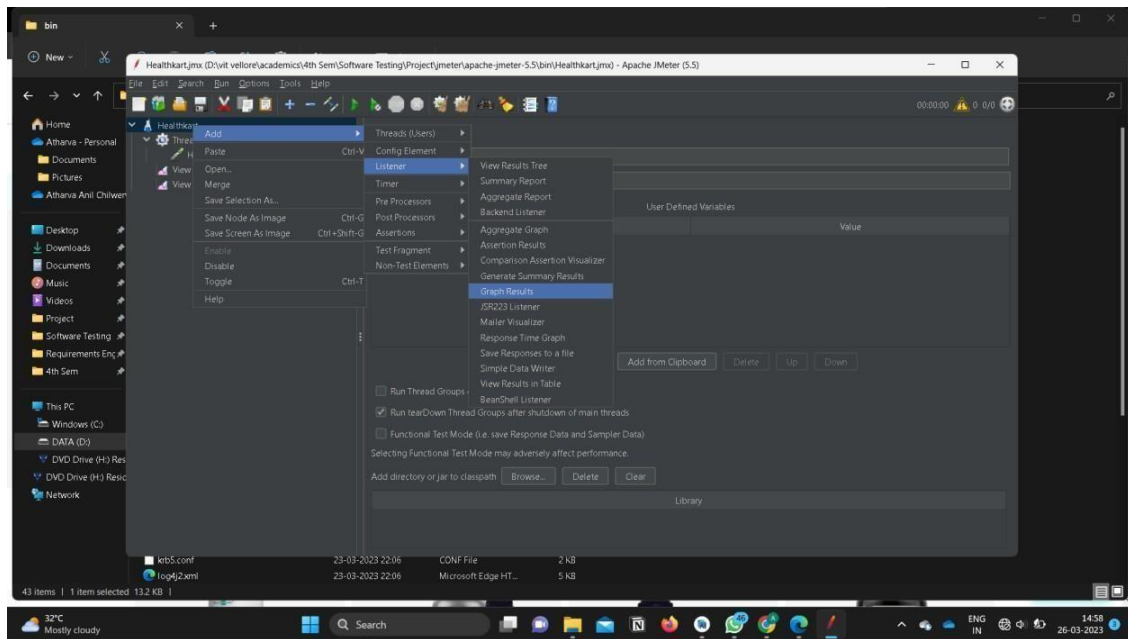
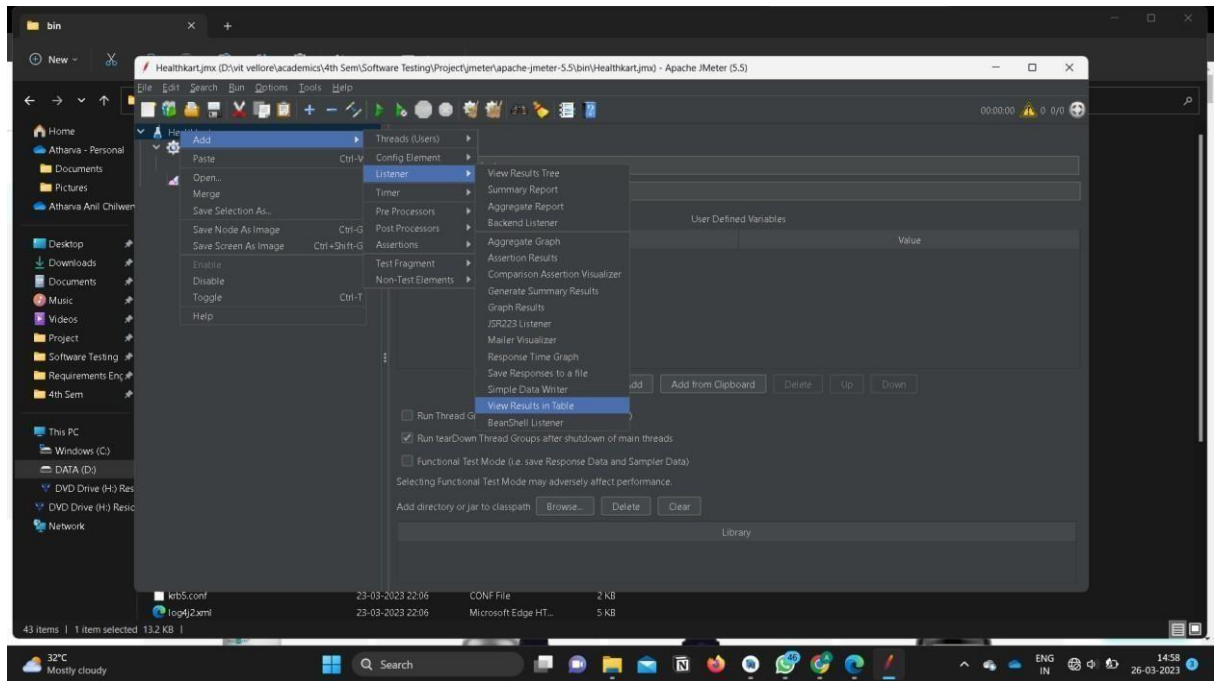
## OUTPUT (SCREENSHOTS)

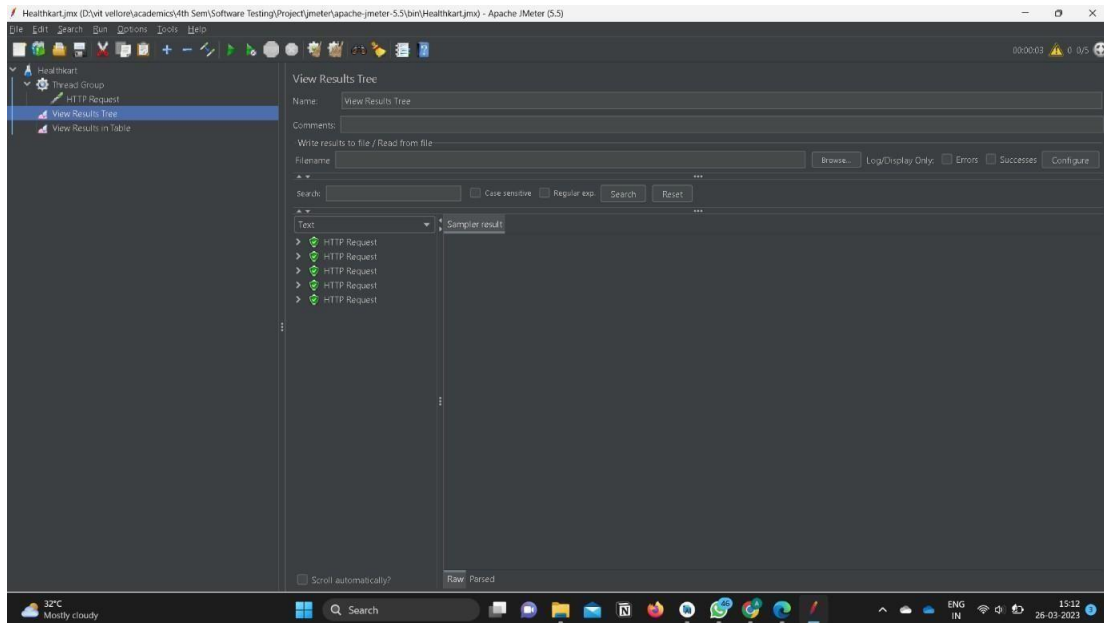
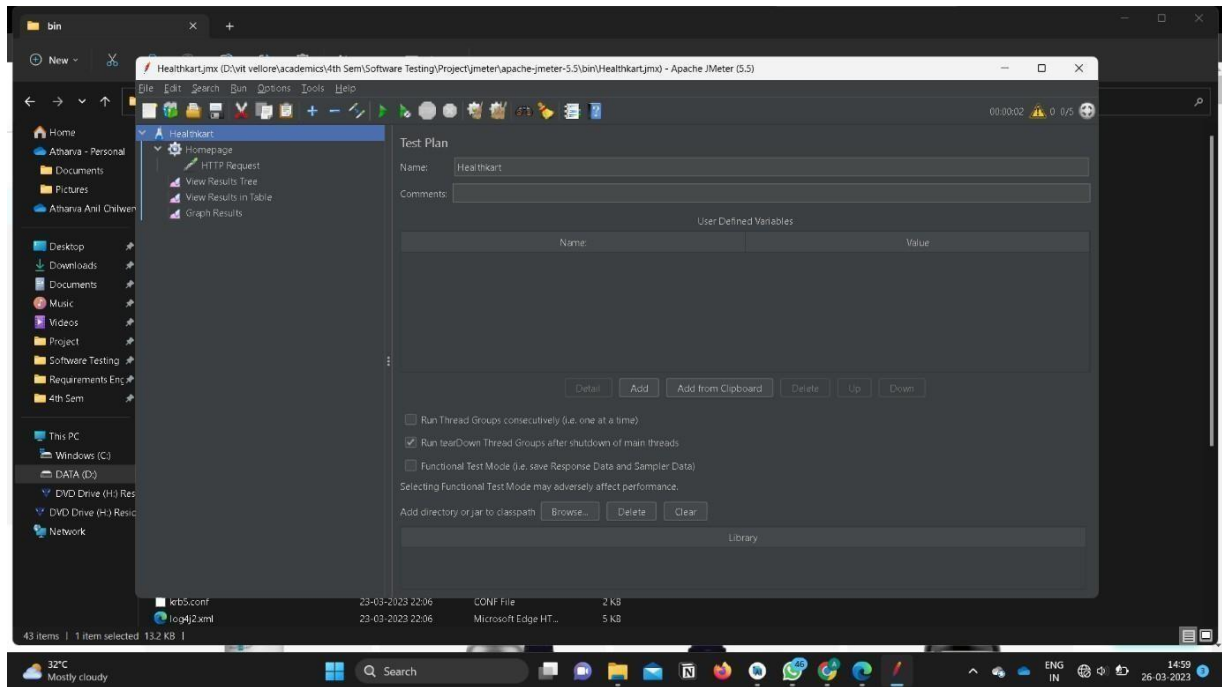


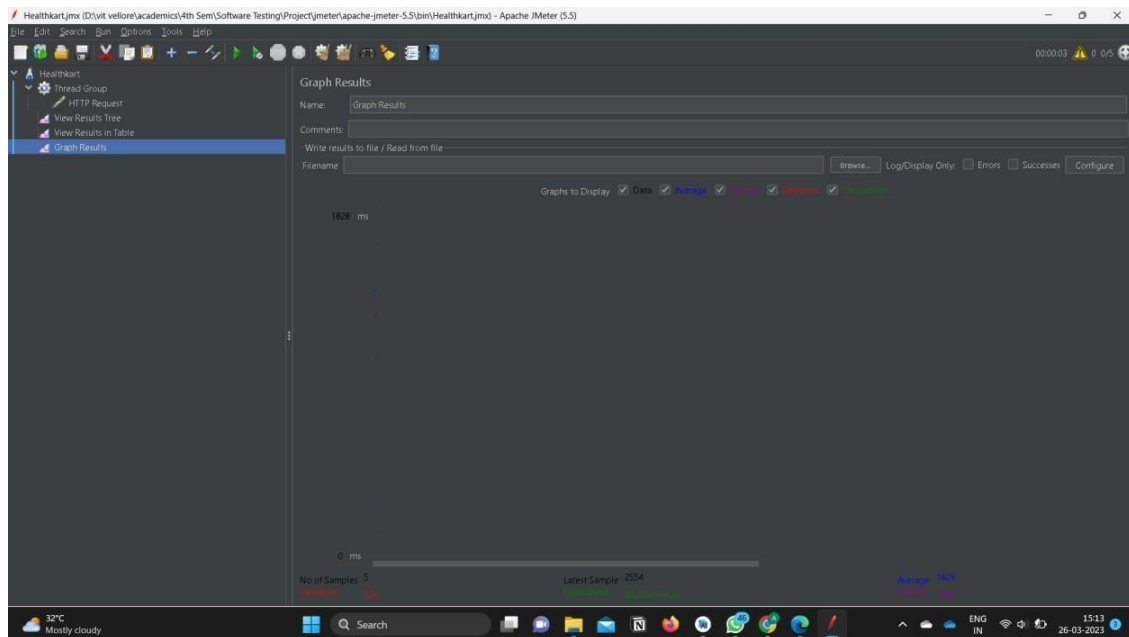
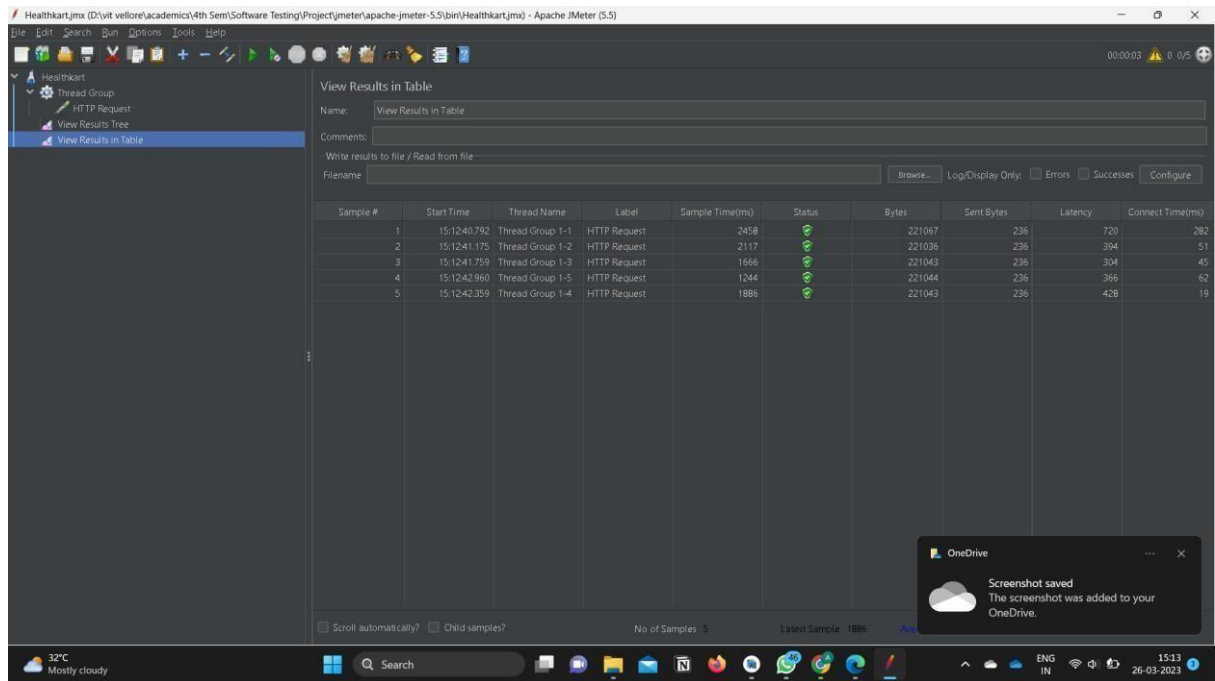


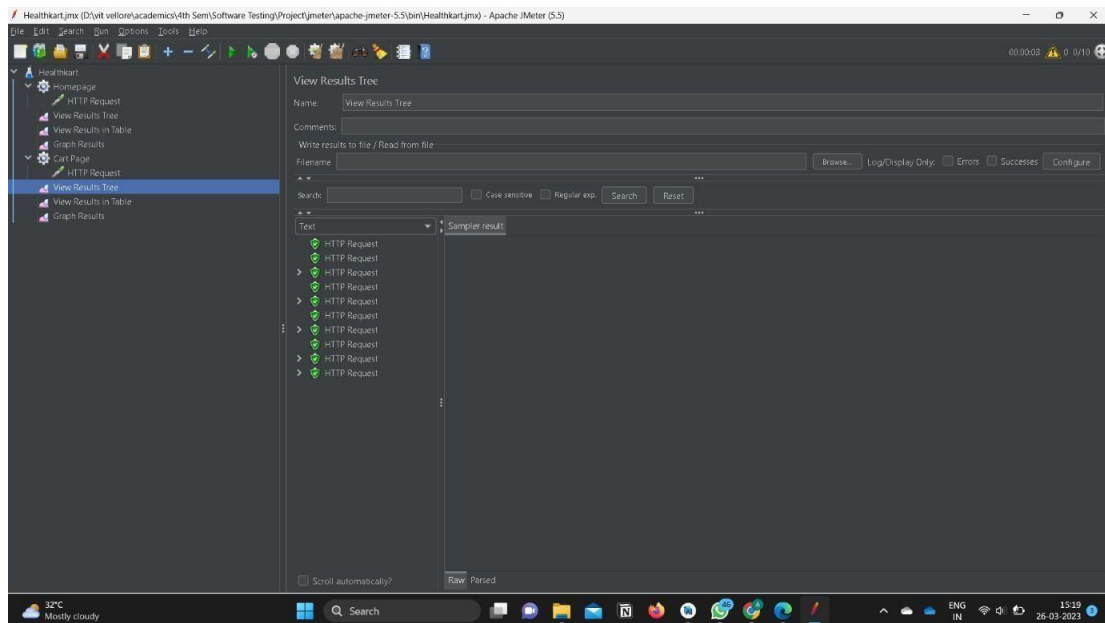
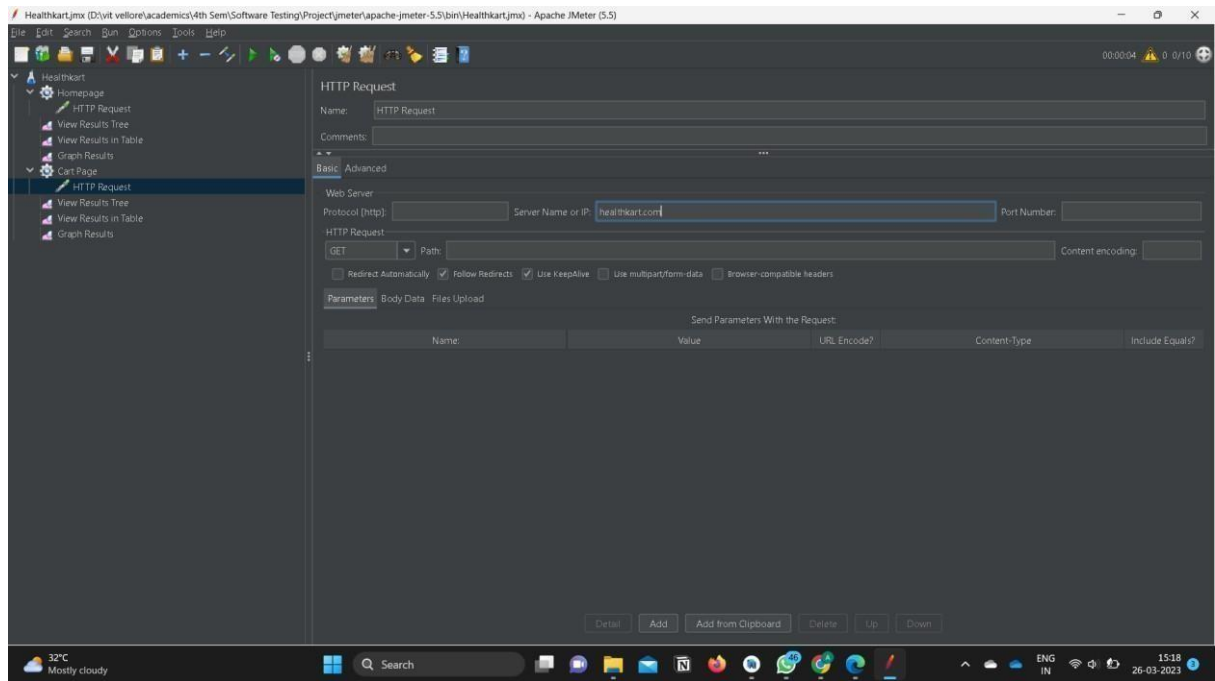




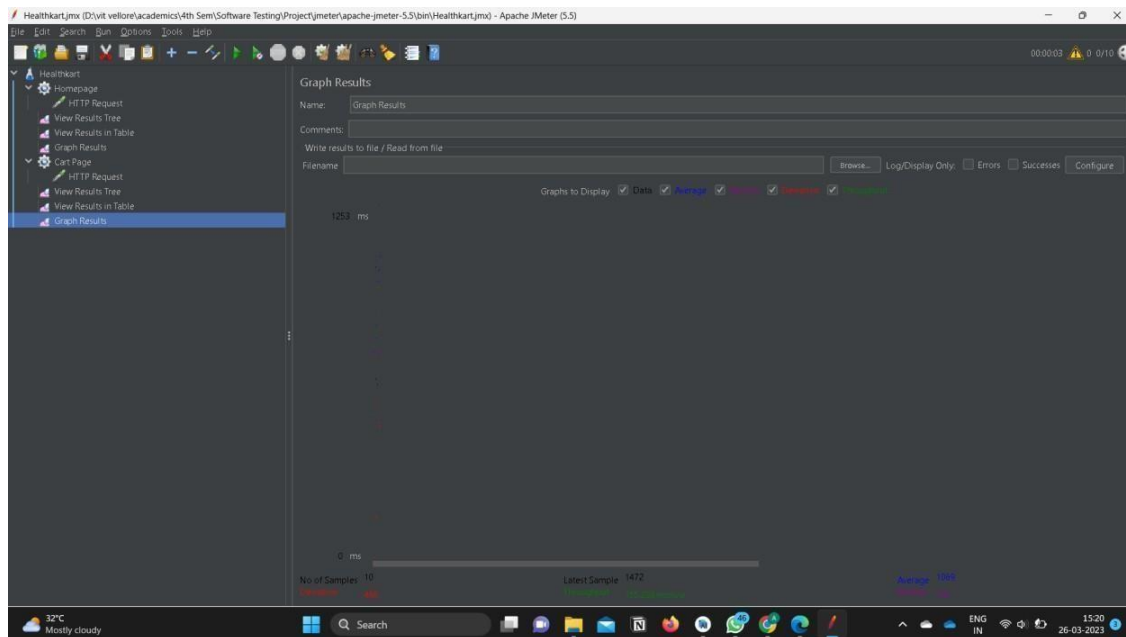
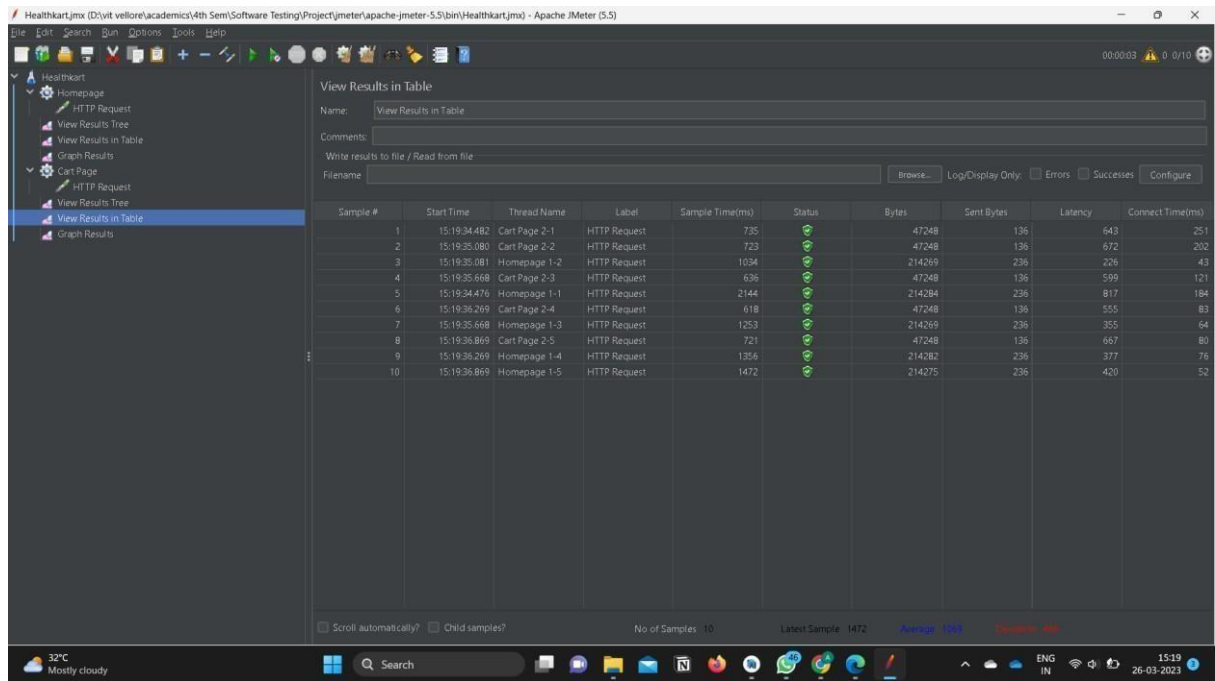


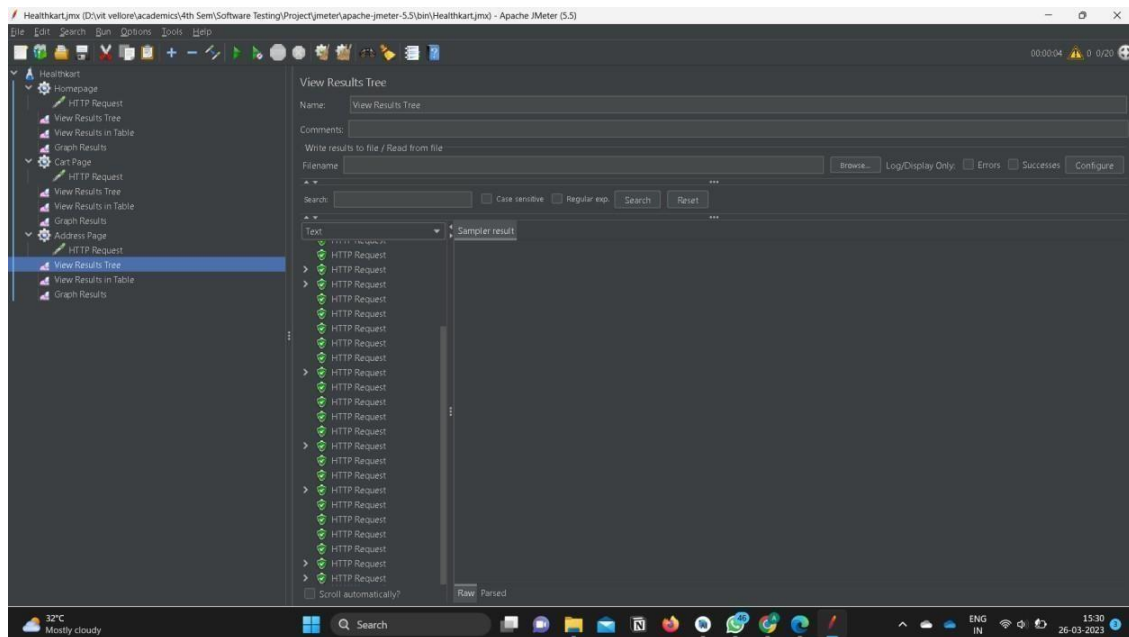
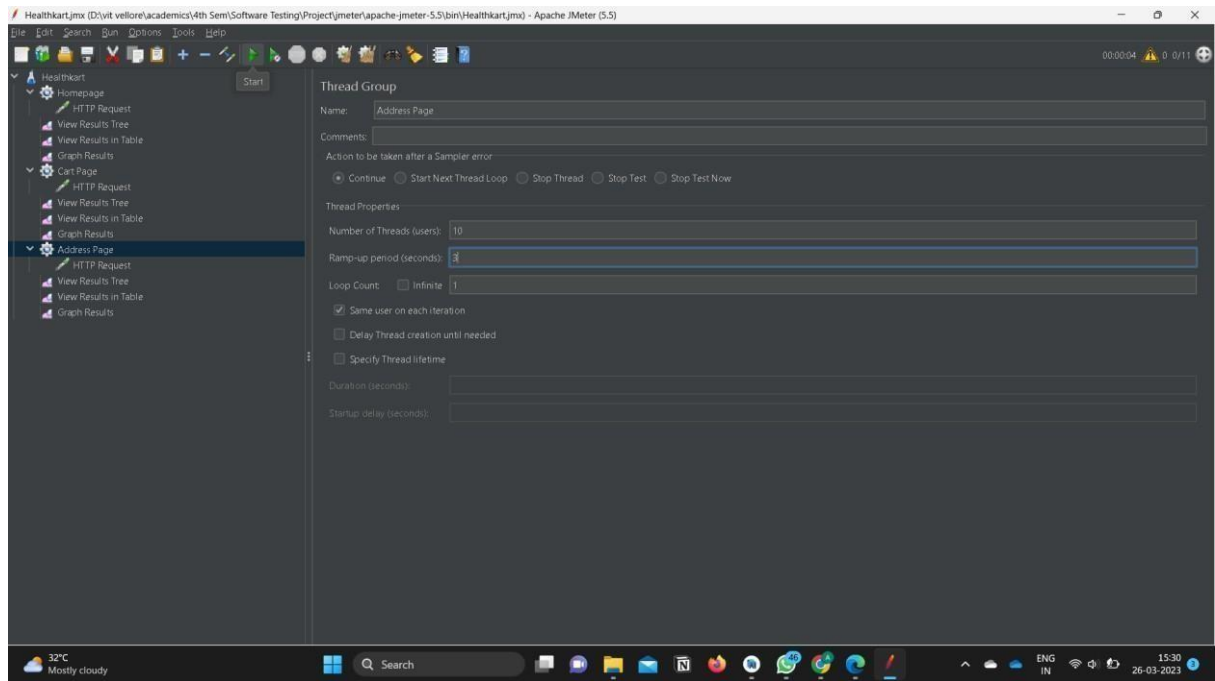


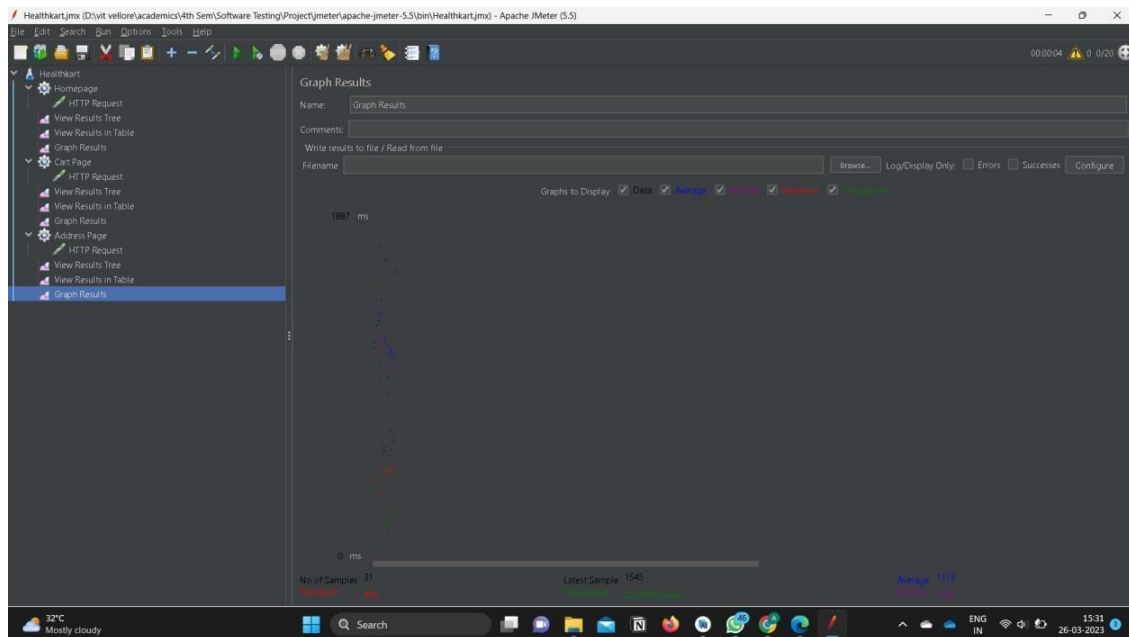
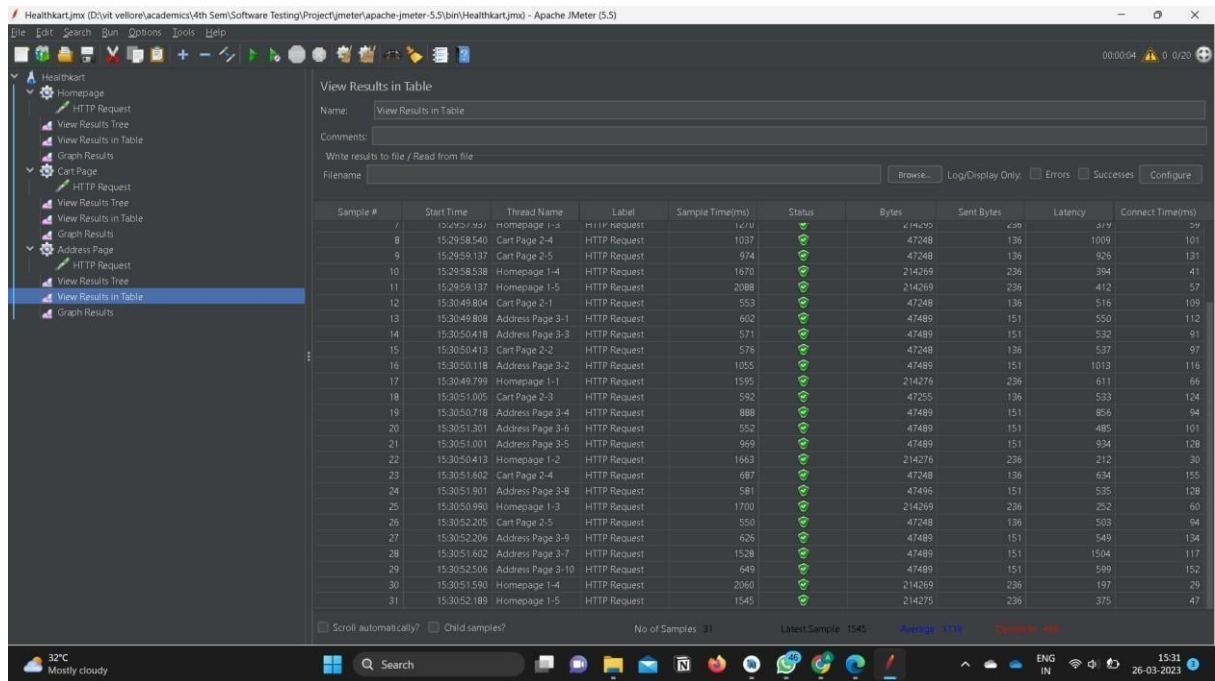


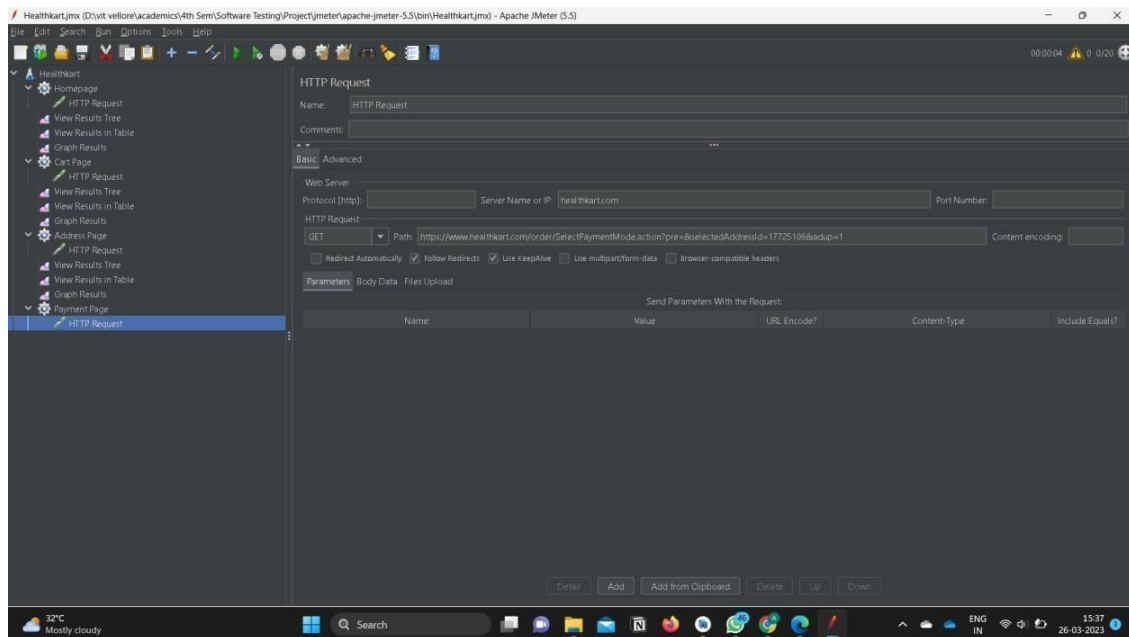
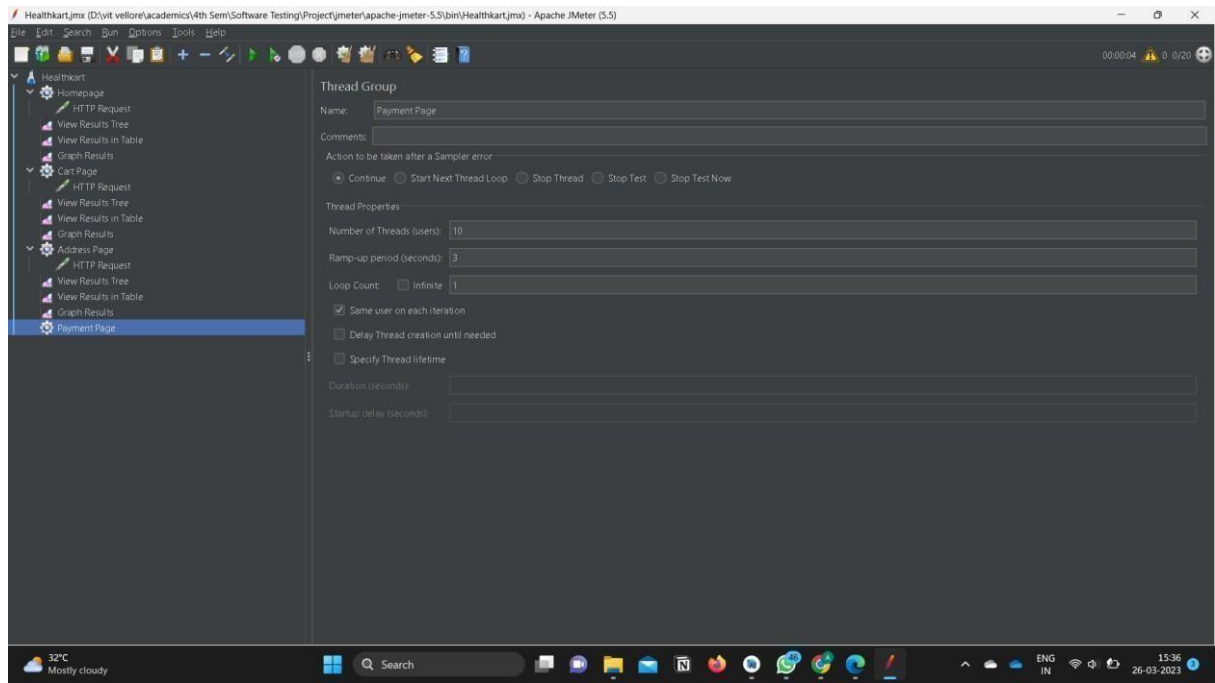




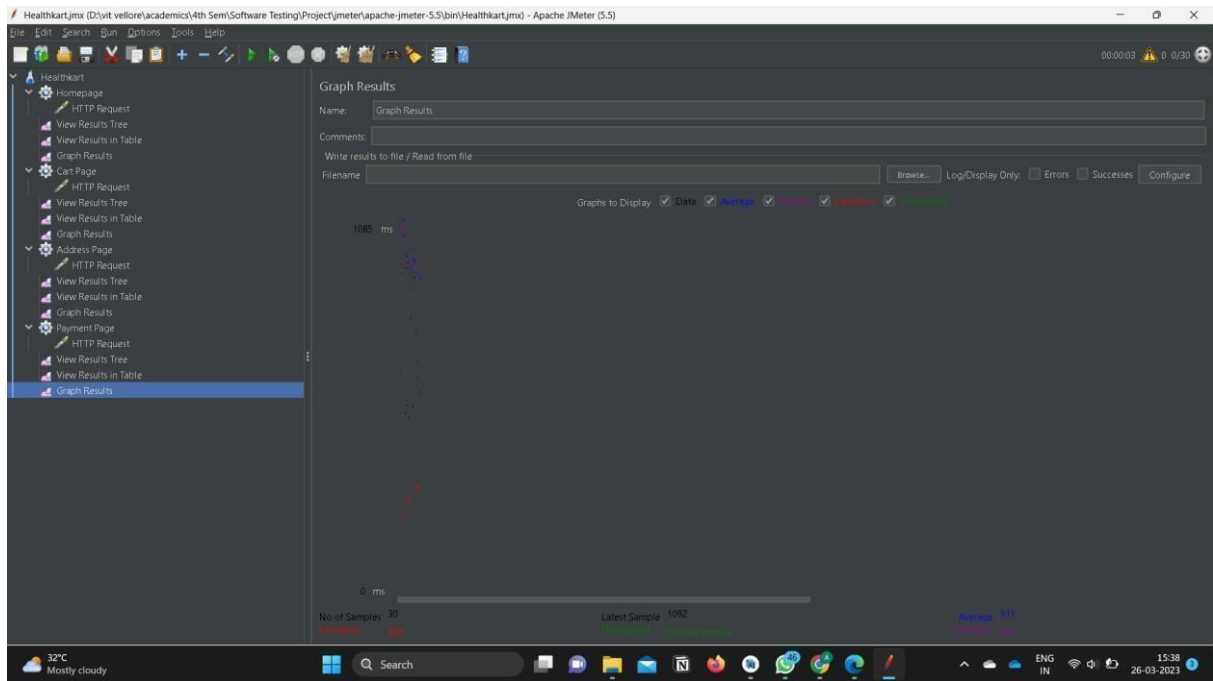




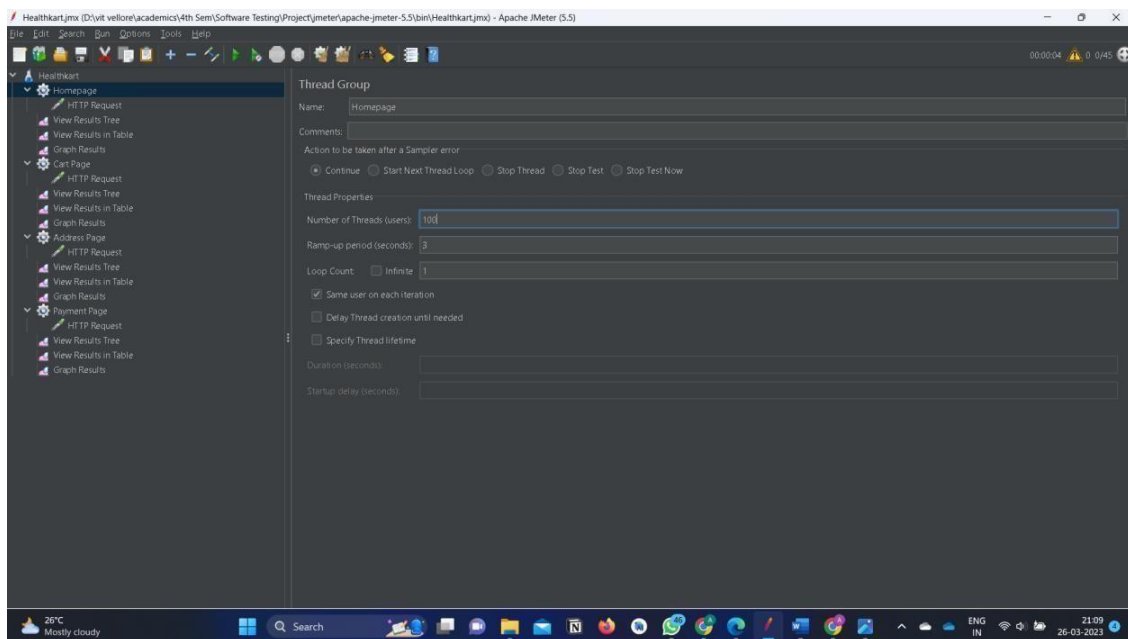


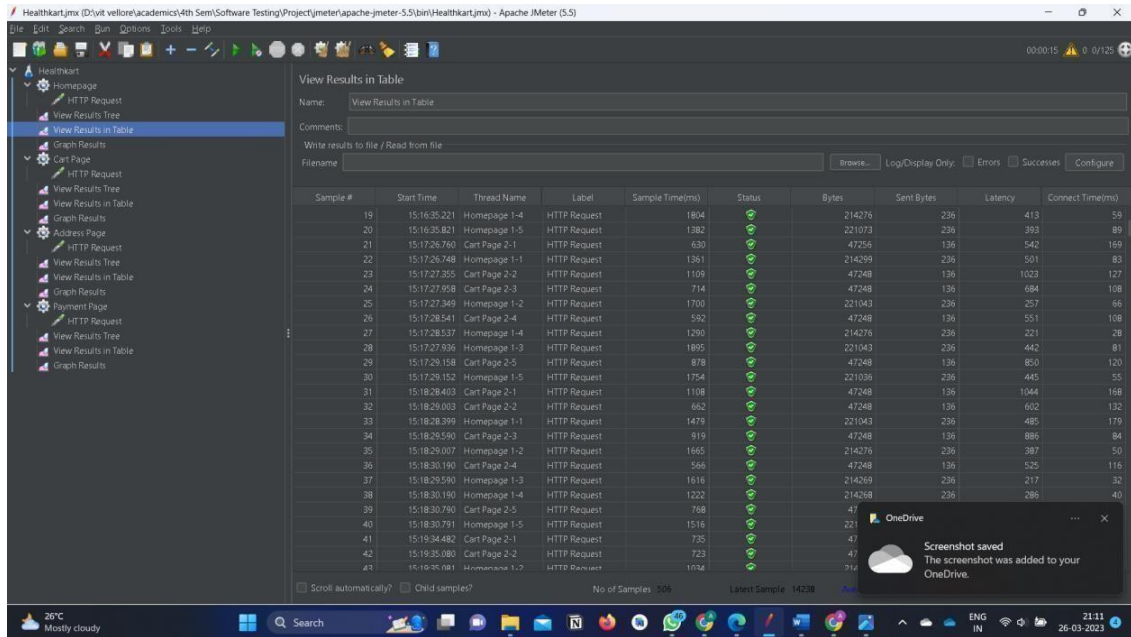
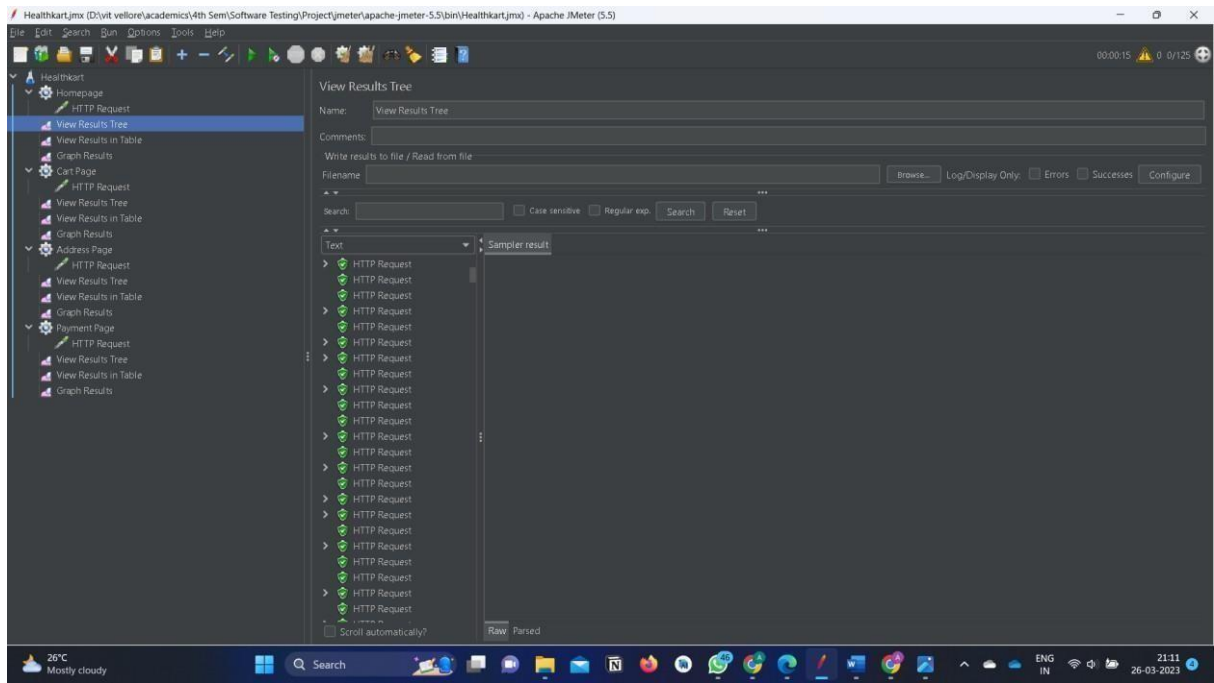


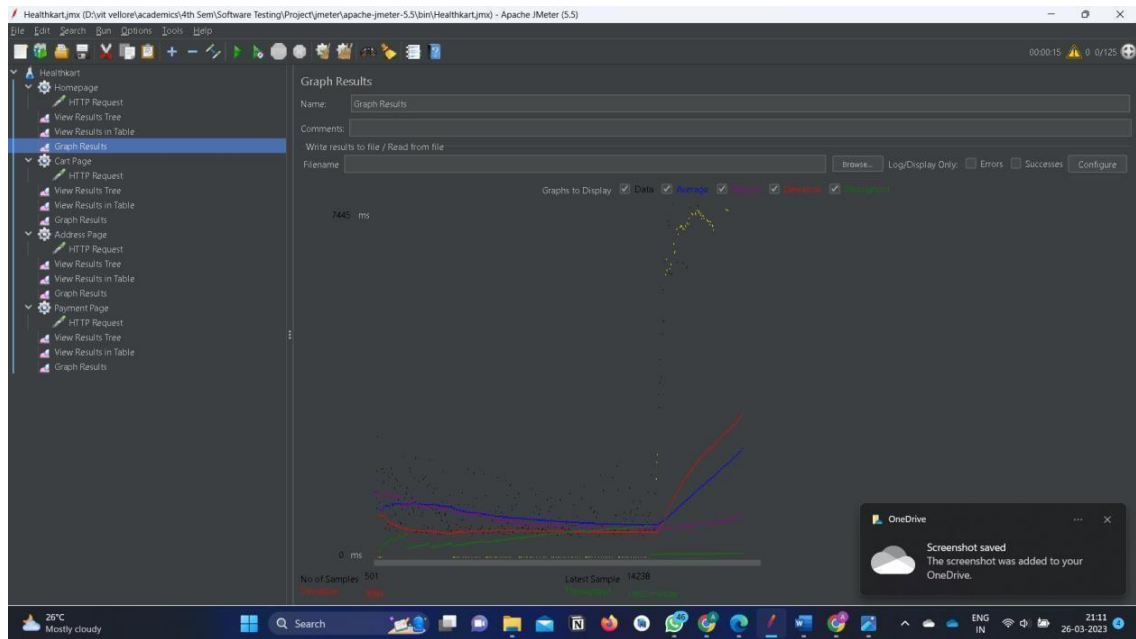




After finishing the process we can also change the no. of threads (no. of users)









## #SELENIUM TESTING TOOL









**Selenium** is a free (open-source) automated testing framework used to validate web applications across different browsers and platforms. You can use multiple programming languages like Java, C#, Python, etc to create Selenium Test Scripts. Testing done using the Selenium testing tool is usually referred to as **Selenium Testing**.

Why use selenium ?

**Why Use Selenium?**

Beating the tedious challenges of *manual testing* is the obvious reason behind using automated tools.

And, here's why Selenium is the best choice:

-  Being **Open-Source**, Selenium is available for **free**. 
-  Selenium works good with **any Operating System**. 
-  Selenium lets you perform tests on **any Web Browser**. 
-  Selenium supports **multiple Programming Languages**. 

The infographic also features a red stick figure thinking on the left and a vertical blue line separating the icons from the text.

## Selenium vs. its Counterparts

Features	HP QTP	IBM RFT	TestComplete	Selenium
License	Required	Required	Required	Open Source
Cost	High	High	High	Free
Customer support	Yes	Yes	Yes	Yes; Open source community
Coding skills	Low	Low	High	Very High
Environment support	Only Windows	Only Windows	Windows only (7, Vista, Server 2008 or later OS)	Windows, Linux, Mac
Language support	VB Script	Java and C#	VB Script, JS Script, Delphi Script, C++ & C#	Java, C#, Ruby, Python, Perl & PHP

What is selenium ?

## What is Selenium?

*"Selenium is an open-source tool that can automate almost any web browser."*

So many test cases, so much work..... So much stress !!!!!!!





Testing with Selenium has made life so relaxing !!

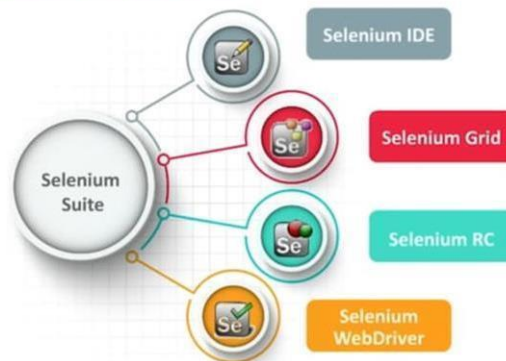


- Selenium can only be used to test web applications.
- Selenium is fast and easy to use even with large sets of data, and has a guaranteed accuracy.
- Selenium directly runs scripts for any web browser to automate the web application and test it.

## Versions and Suite of Tools

As of April – 2018, the latest release of the tool is Selenium Version 3.12.0.

The Selenium suite comprised the following four components:



*Selenium RC, however, was merged with WebDriver and launched anew as Selenium WebDriver with better functionalities.*

### Version and suite of tools for selenium

## Versions and Suite of Tools



## How to setup selenium

### How to Set-up Selenium?

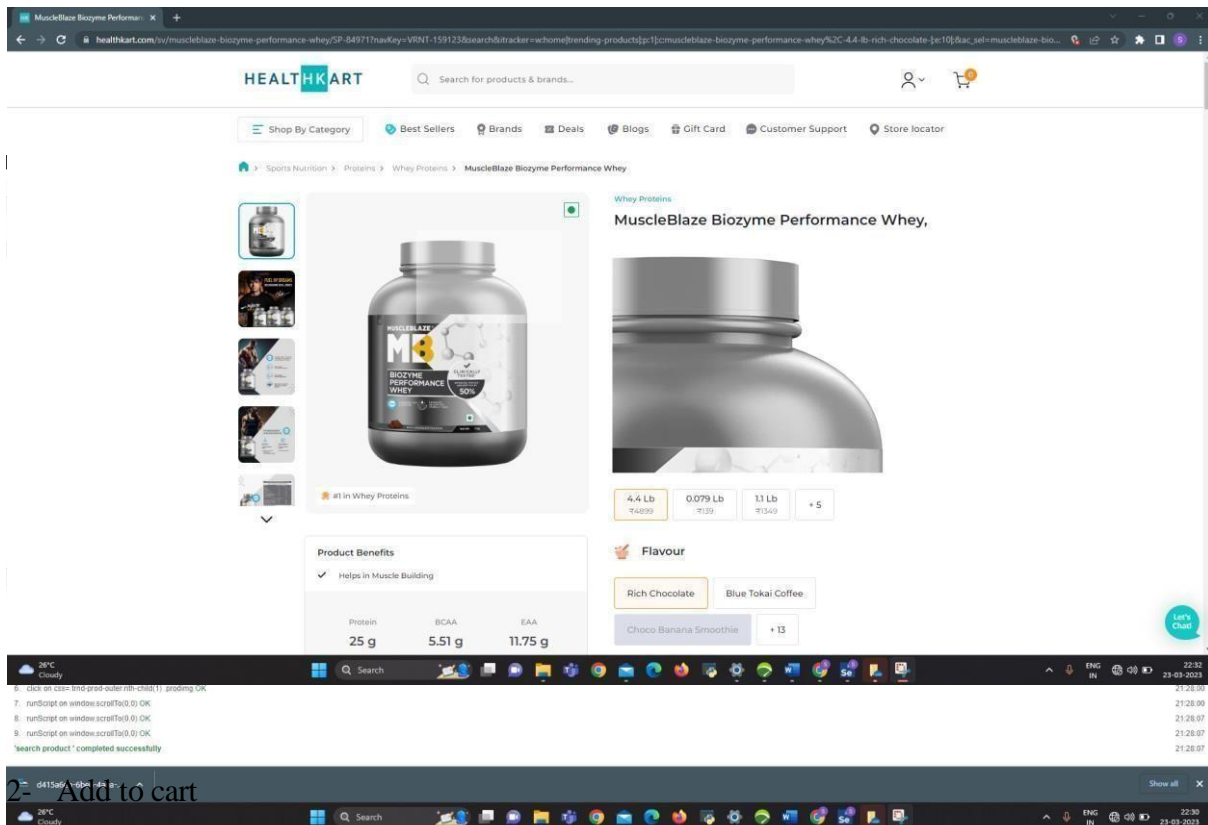
The following three software are prerequisite to begin using Selenium.

#### 1- TEST CASE FOR SEARCH PRODUCT

I. Java → *Programming Language to write scripts*

II. Eclipse → *Environment to compile and run scripts*

III. Selenium → *Framework for testing web applications*



addtocart

Project: addtocart

Executing -

addtocart

https://www.healthkart.com

Command	Target	Value
1. ✓ open	icart/Cart.action	
2. ✓ set window size	928x1032	
3. ✓ run script	window.scrollTo(0,54)	
4. ✓ click	linkText=Proceed to Pay ₹2,488	
5. ✓ run script	window.scrollTo(0,0)	
6. ✗ click	id=address-fieldset	
7. type	id=address-fieldset	vellore institute of technology katpadi vellore tamil nadu
8. type	name=name	Spansh Rajavanshi
9. type	name=mobNo	6397048156
10. type	css=fpincode-fieldset > large-input-field	632014
11. type	name=email	spansh.rajavanshi2021@vitsstudent.ac.in
12. click	name=landmark	
13. type	name=landmark	vellore institute of technology

Command

Target

Value

Description

Runs: 1

Failures: 1

Log

Reference

Running 'addtocart'

1. open on icart/Cart.action OK

2. setWindowSize on 928x1032 OK

3. runScript on window.scrollTo(0,54) OK

4. click on linkText=Proceed to Pay ₹2,488 OK

5. runScript on window.scrollTo(0,0) OK

6. Trying to find id=address-fieldset. Failed: Impact Visual timed out after 3000ms

'addtocart' ended with 1 error(s)

22:46:43

22:46:44

22:46:44

22:46:44

22:46:45

22:46:45

22:46:45

22:46:49

22:47:19

7508209b-8366-4cb7-...

Show all

25°C

Cloudy

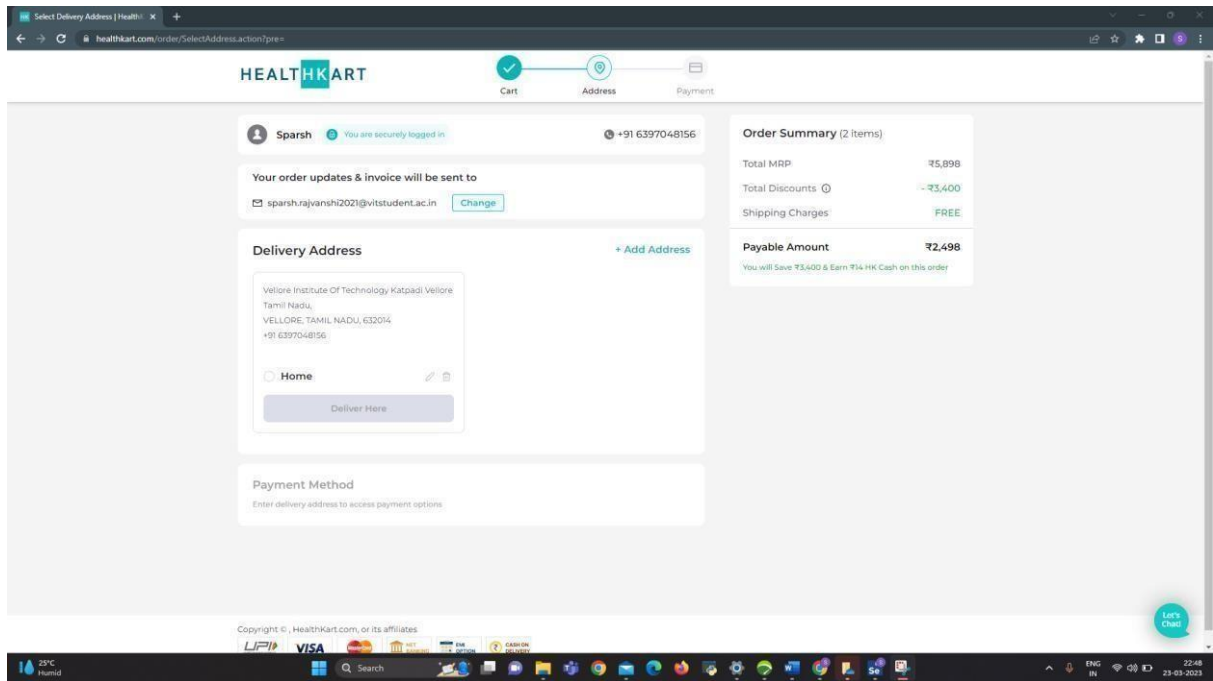
Search

ENG

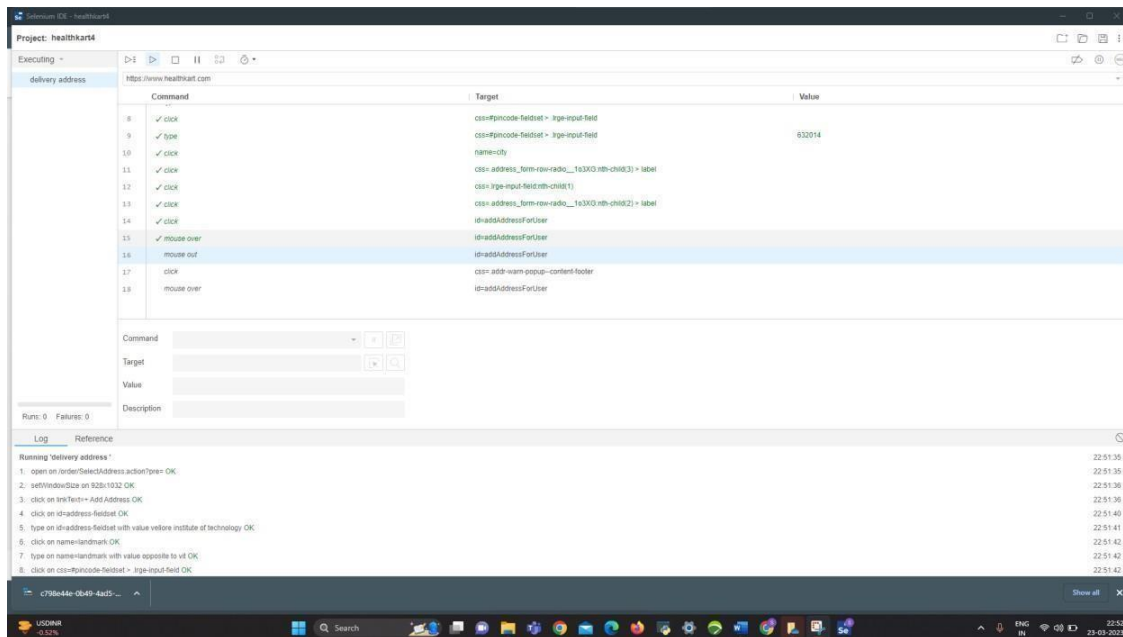
IN

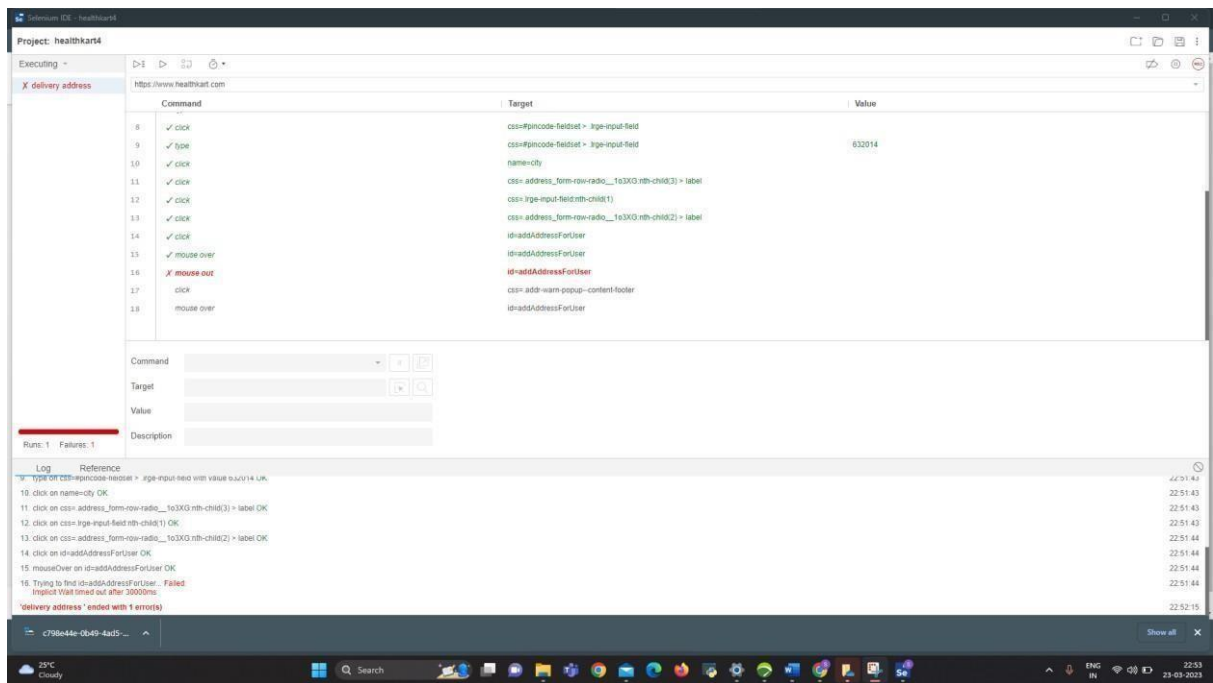
22:47

23-03-2023

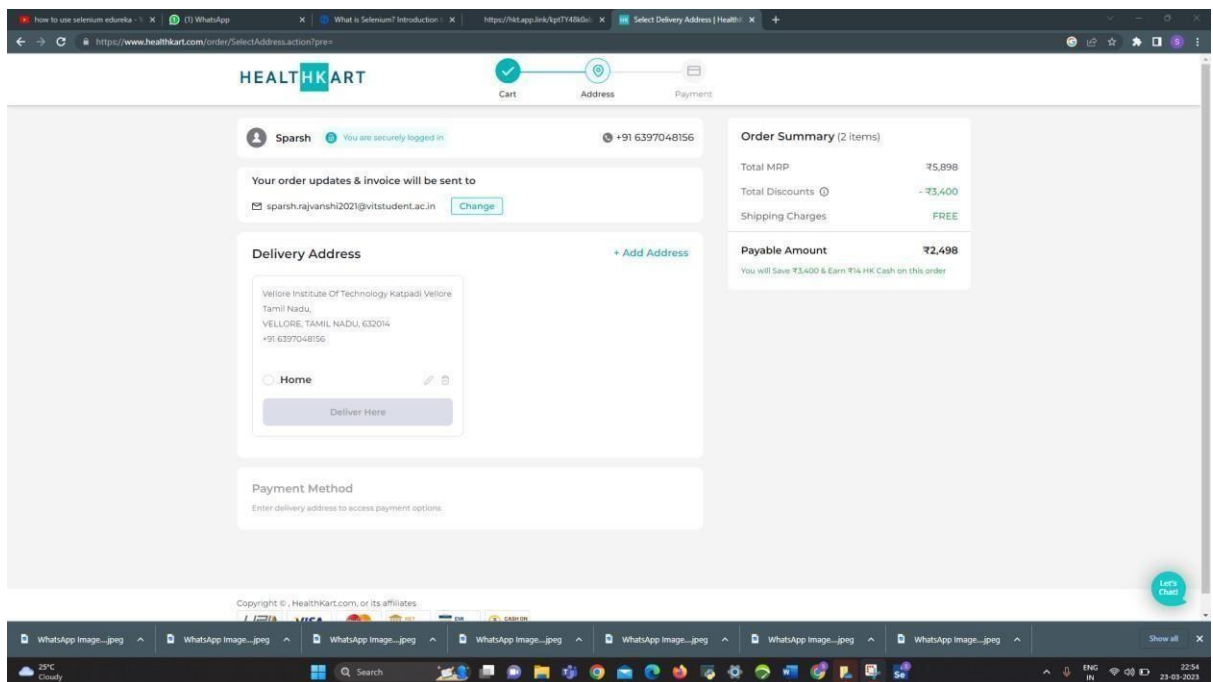


### 3 delivery address





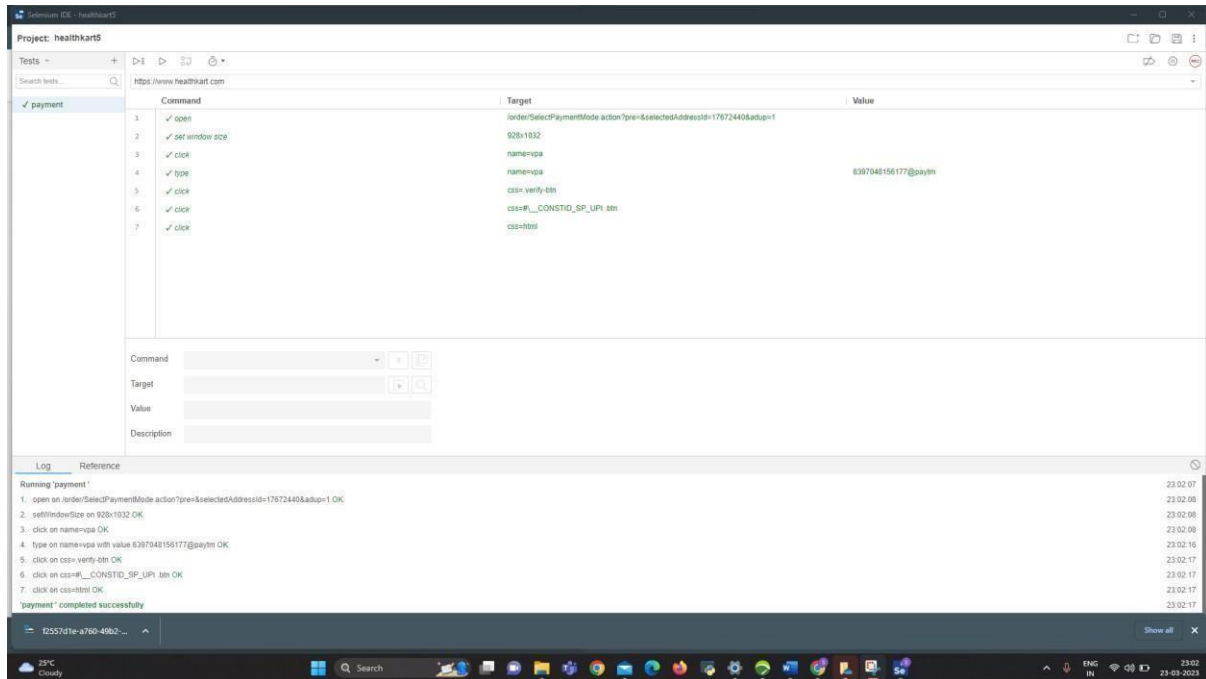
## Output



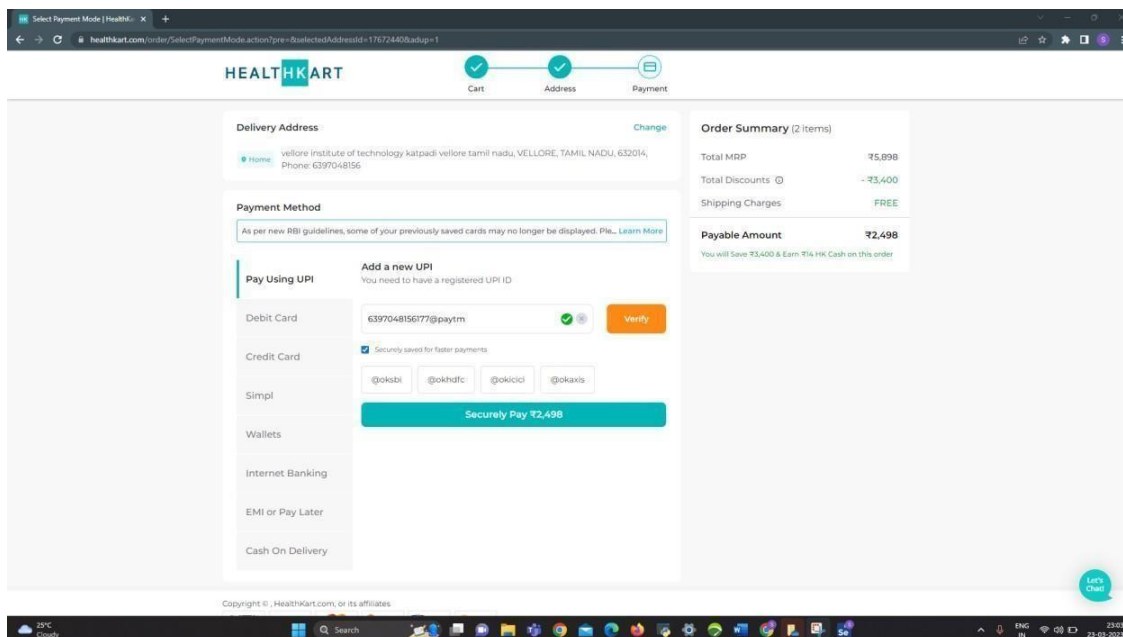
## 4 – payment



## 4 – Payment



## Output –





## **JUNIT**

JUnit is an open source Unit [Testing](#) Framework for JAVA. It is useful for [Java](#) Developers to write and run repeatable tests. Erich Gamma and Kent Beck initially develop it. It is an instance of xUnit architecture. As the name implies, it is used for [Unit Testing](#) of a small chunk of code.

Developers who are following test-driven methodology must write and execute unit test first before any code. Once you are done with code, you should execute all tests, and it should pass. Every time any code is added, you need to re-execute all test cases and makes sure nothing is broken.

Why you need JUnit testing

- It finds bugs early in the code, which makes our code more reliable.
- JUnit is useful for developers, who work in a test-driven environment.
- Unit testing forces a developer to read code more than writing.
- You develop more readable, reliable and bug-free code which builds confidence during development.

## **ANNOTATIONS OF JUNIT TESTING**

@Test annotation specifies that method is the test method.

@Test(timeout=1000) annotation specifies that method will be failed if it takes longer than 1000 milliseconds (1 second).

@BeforeClass annotation specifies that method will be invoked only once, before starting all the tests.

@Before annotation specifies that method will be invoked before each test.

@After annotation specifies that method will be invoked after each test.

@AfterClass annotation specifies that method will be invoked only once, after finishing all the tests.

#### Methods of Assert class

1. **void assertEquals(boolean expected,boolean actual)**: checks that two primitives/objects are equal. It is overloaded.
2. **void assertTrue(boolean condition)**: checks that a condition is true.
3. **void assertFalse(boolean condition)**: checks that a condition is false.
4. **void assertNull(Object obj)**: checks that object is null.
5. **void assertNotNull(Object obj)**: checks that object is not null.

#### Testing Login Module

##### Java Code (NETBEANS)

##### TEST 1

/\*

\* Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license

\* Click

nbfs://nbhost/SystemFileSystem/Templates/Project/Maven2/JavaApp/src/main/java/\${packagePath}/\${main  
Class sName}.java to edit this template

\*/

```
package sprjava.mavenproject2;
```

```

import java.util.Scanner;

/**
 * @author sprpr
 */
public class Mavenproject2 {

    public static void main(String[] args) {

        public static boolean login(String uname,String paswd)
        {
            String
            username="Hello";
            String
            password="123@";

            System.out.println("Log in:");
            System.out.println("username:
            ");

            System.out.println("password: ");

            //users check = new users(username, password);

            if(username.equals(uname) &&

            password.equals(paswd))
            {
                System.out.println("You are logged in");
                return true;
            }
            else
                System.out.println("entered credentials are wrong
                "); return false ;

            // if(username.equals(uname) && password.equals(paswd)){

            }
            //}}

```

## JUnit Test Case

```

/**
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/UnitTests/JUnit5TestClass.java to edit this template

```

```
*/  
package sprjava.mavenproject2;  
  
import  
org.junit.jupiter.api.AfterEach;  
import  
org.junit.jupiter.api.BeforeEach;  
import org.junit.jupiter.api.Test;
```

```
import static org.junit.jupiter.api.Assertions.*;

/**
 * @author sprpr
 */
public class Mavenproject2Test {

    public Mavenproject2Test() {
    }

    @BeforeEach
    public void setUp() throws Exception {
    }

    @AfterEach
    public void tearDown() throws Exception {
    }

    /**
     * Test of main method, of class Mavenproject2.
     */
    @Test
    public void testMain() {

        System.out.println("checkCredentials");
        String un = "Hello";
        String p = "123@";
        Mavenproject2 instance = new Mavenproject2();
        boolean expResult = true;
        boolean result = instance.login(un, p);
        assertEquals(expResult, result);

    }

    /**
     * Test of login method, of class Mavenproject2.
     */
}
```

## OUTPUT

-----  
T E S T S  
-----

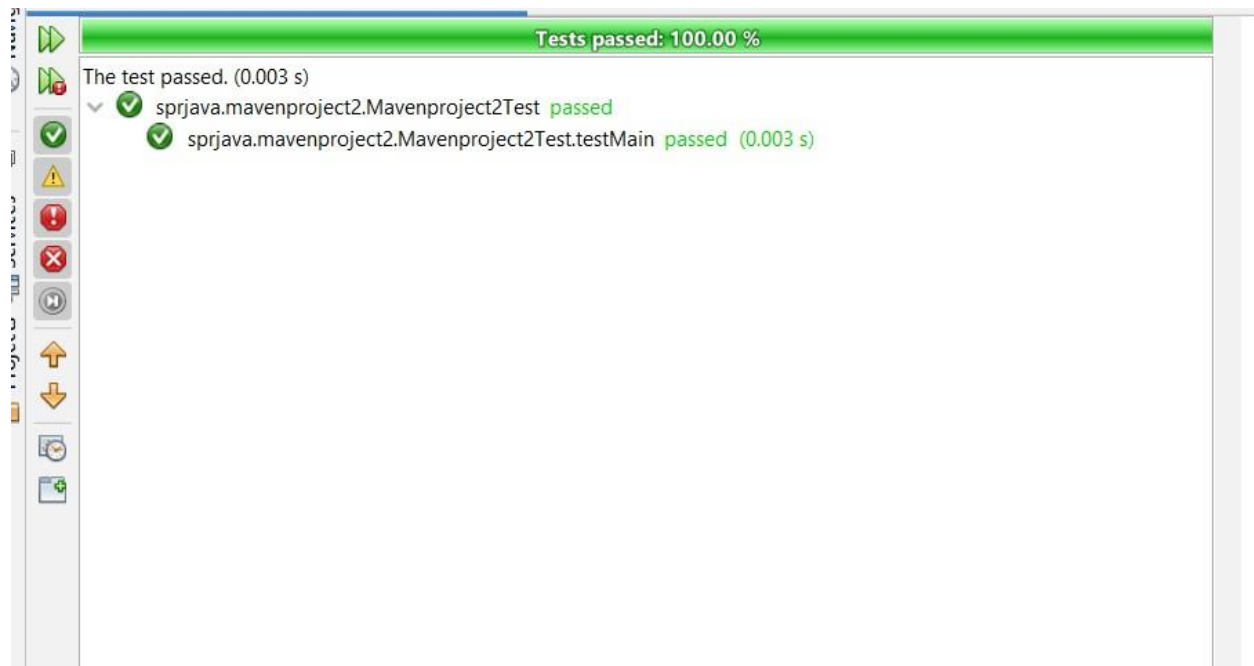
Running sprjava.mavenproject2.Mavenproject2Test  
checkCredentials  
Log in:  
username:  
password:  
You are logged in  
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0 sec

Results :

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

-----  
BUILD SUCCESS  
-----

Total time: 0.980 s  
Finished at: 2023-04-04T14:32:00+05:30  
-----



## TEST 2

### JUnit Test Case – 2

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/UnitTests/JUnit5TestClass.java to edit this template
 */
package sprjava.mavenproject2;

import
org.junit.jupiter.api.AfterEach;
import
org.junit.jupiter.api.BeforeEach;
import org.junit.jupiter.api.Test;
import static org.junit.jupiter.api.Assertions.*;

/**
 *
 * @author sprpr
 */
public class Mavenproject2Test {

    public Mavenproject2Test() {
    }

    @BeforeEach
    public void setUp() throws Exception {
    }

    @AfterEach
    public void tearDown() throws Exception {
    }

    /**
     * Test of main method, of class Mavenproject2.
     */
    @Test
    public void testMain() {

        System.out.println("checkCredentials");
        String un = "Welcome";
        String p = "123@";
        Mavenproject2 instance = new Mavenproject2();
        boolean expResult = true;
        boolean result = instance.login(un, p);
    }
}
```



```
assertEquals(expResult, result);
```

```
}
```

```
/**
 * Test of login method, of class Mavenproject2.
 */

}
```

## OUTPUT

```
-----
T E S T S
-----

Running sprjava.mavenproject2.Mavenproject2Test
checkCredentials
Log in:
username:
password:
entered credentials are wrong
Tests run: 1, Failures: 1, Errors: 0, Skipped: 0, Time elapsed: 0.013 sec <<< FAILURE!
sprjava.mavenproject2.Mavenproject2Test.testMain() Time elapsed: 0.012 sec <<< FAILURE!
```

