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How to Download and Install JMeter for Windows?

What is JMeter?

JMeter is an open-source testing tool that analyzes and measures the performance of software and products. The tool is entirely [Java](#)-based and ensures [performance testing](#), load testing, and functional testing.



Earlier, JMeter was originally developed for [web applications](#) but has now expanded to several other functions.

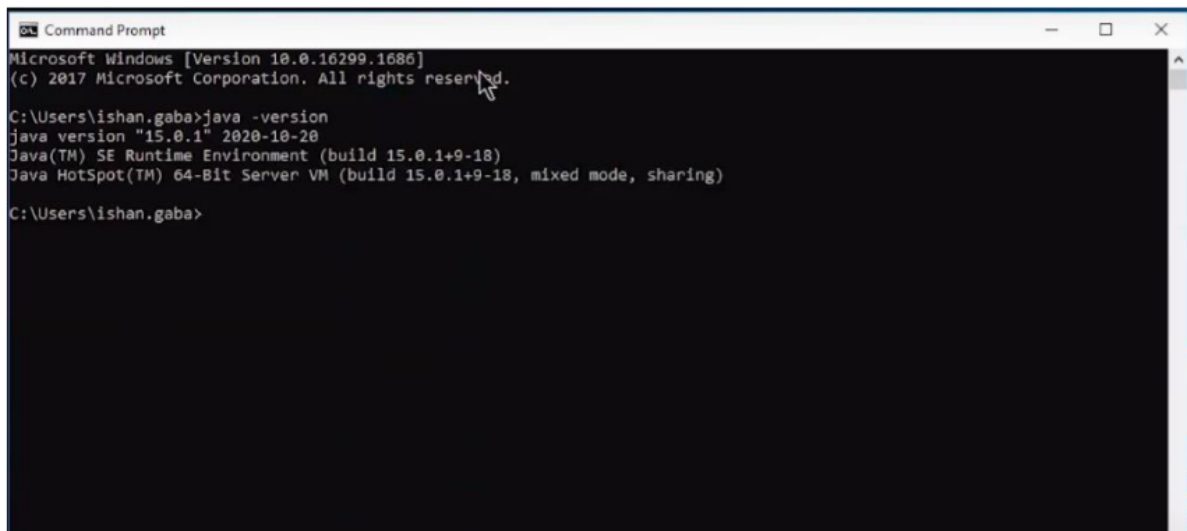
Let's have a look at the process to download and install JMeter:

How to Download and Install JMeter?

There is just one prerequisite for downloading and installing JMeter: to have Java installed in your system.

1. Check if Java Is Installed

- Open the command prompt
- Put the command `java -version`



```
Command Prompt
Microsoft Windows [Version 10.0.16299.1686]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\ishan.gaba>java -version
java version "15.0.1" 2020-10-20
Java(TM) SE Runtime Environment (build 15.0.1+9-18)
Java HotSpot(TM) 64-Bit Server VM (build 15.0.1+9-18, mixed mode, sharing)

C:\Users\ishan.gaba>
```

If you have Java installed in your system, the command will show the version of Java installed, else, before going forward with the installation of JMeter, you must install Java.

2. Download JMeter

- To download JMeter go to the Apache JMeter website

https://jmeter.apache.org/download_jmeter.cgi

- On the website go to the binaries section and download the zip file
- Wait for the zip folder to be downloaded

Apache JMeter 5.4.1 (Requires Java 8+)

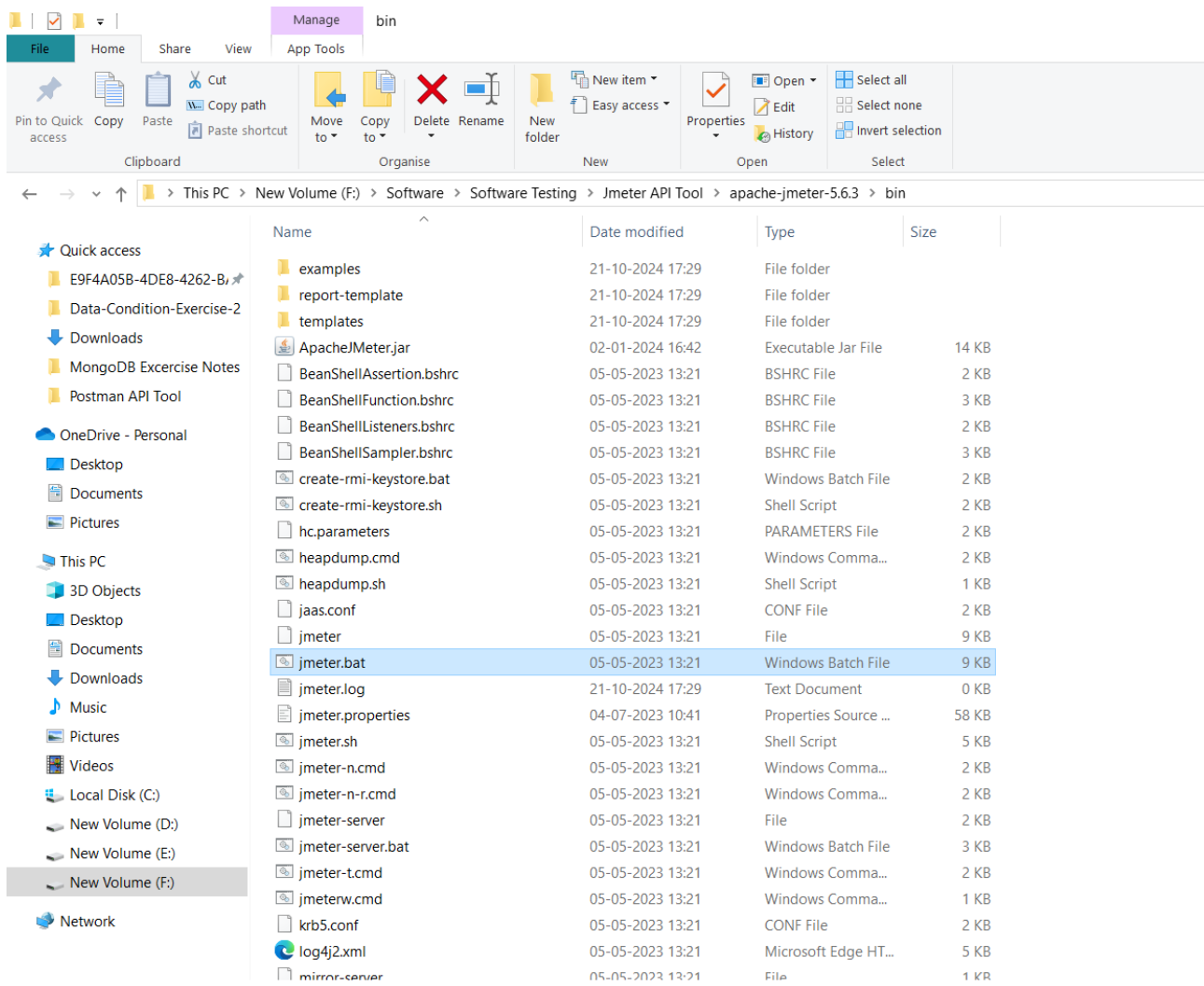
Binaries

[apache-jmeter-5.4.1.tgz sha512 pgp](#)
[apache-jmeter-5.4.1.zip sha512 pgp](#)

3. Install JMeter

- Once the zip folder is downloaded, go to the folder location, and then extract the zip folder
- Once the folder is extracted go inside that folder and then go inside the bin folder here
- In the bin folder open the jmeter.bat file



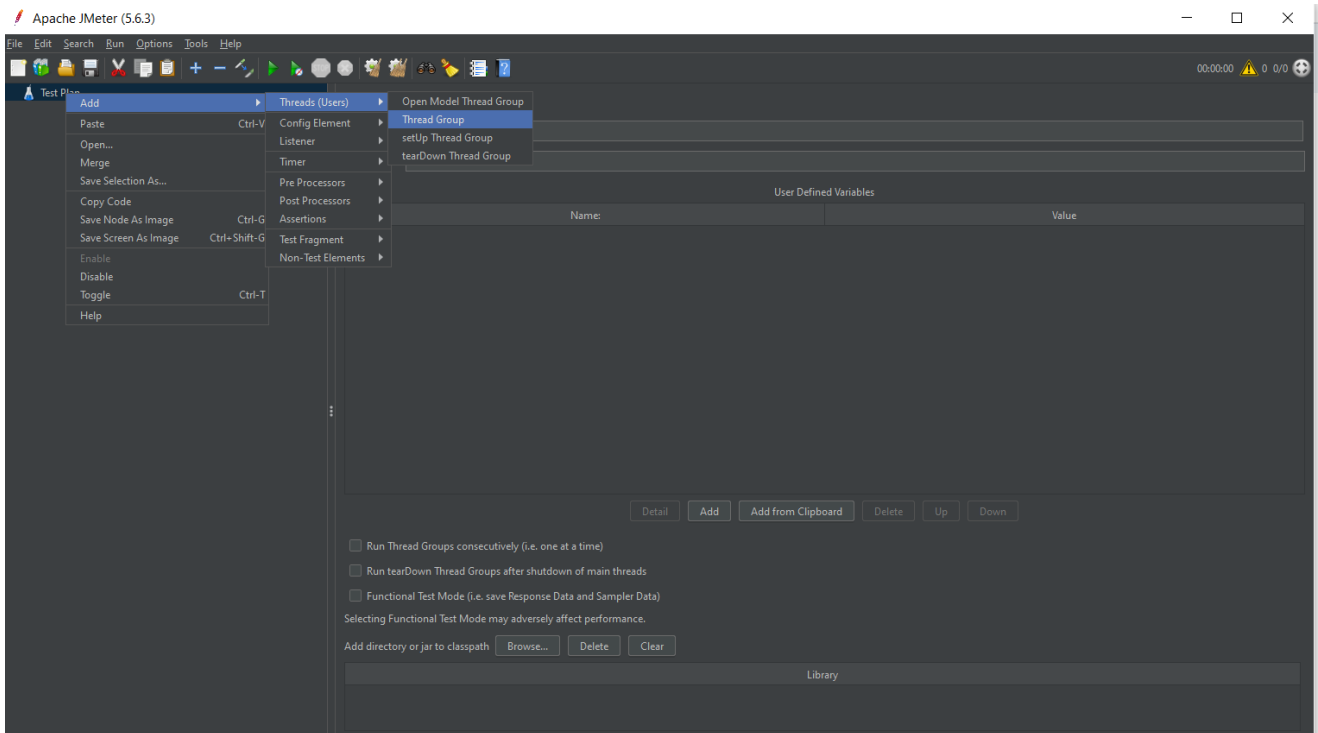


4. Create the First Test Plan

The first step in creating the test plan is

Adding a Thread Group

- Open the JMeter window
- The window is divided into two parts. The left side has all the added elements, while the right side has all the elements' configurations.
- Rename the test plan and save it
- Now, rename it as the FirstJMeter.
- Right-click on the test plan.
- Go to add -> Threads (Users) -> Thread Group



Now, once you click on the Thread Group, there are three things on the screen that are important concerning the [load test](#):

- The number of threads (users):

This is the number of threads or users JMeter will simulate.

Let's make it 100.

- Ramp-Up Period (in seconds):

This is the time that JMeter takes before starting the thread over.

Let's keep this as 12.

- Loop Count:

This is the number of times the test will be executed.

And this one, let's leave it to be 1.

Thread Group

Name:

Comments:

Action to be taken after a Sampler error

☒ Continue
 ☐ Start Next Thread Loop
 ☐ Stop Thread
 ☐ Stop Test
 ☐ Stop Test Now

Thread Properties

Number of Threads (users):

Ramp-up period (seconds):

Loop Count: ☐ Infinite

☒ Same user on each iteration
☐ Delay Thread creation until needed
☐ Specify Thread lifetime

Duration (seconds):

Startup delay (seconds):

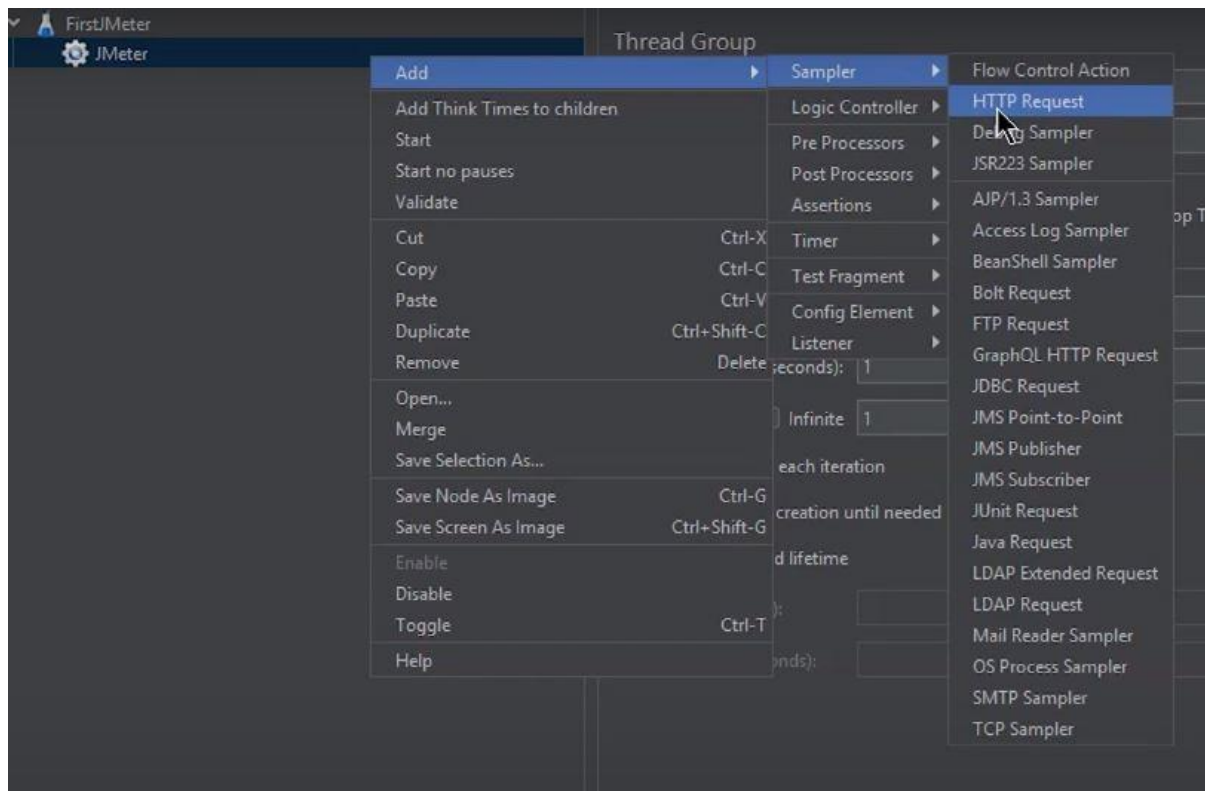
Add an HTTP Request

- Right-click on FirstJMeter and again go to add
- In the drop-down select samplers

These are all the types of requests that JMeter can work on.

- For now, choose the simplest of them all, the HTTP request.

Here you will have to give the address to some home pages or websites.



Now, rename it to be HomePages.

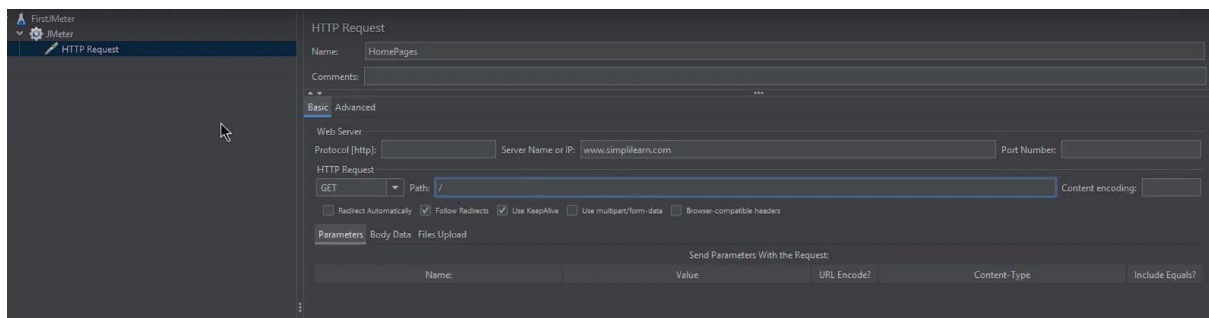
Here, in the Server Name or IP box, you have to give the server name or the IP.

Let's pick up a website; for now, take Simplilearn's website.

- Copy the URL
- Come back to the JMeter window and paste it into the Server Name box.

Don't give HTTP or HTTPS since these are protocols that will come in the other box. They will be automatically taken in the HTTP request case.

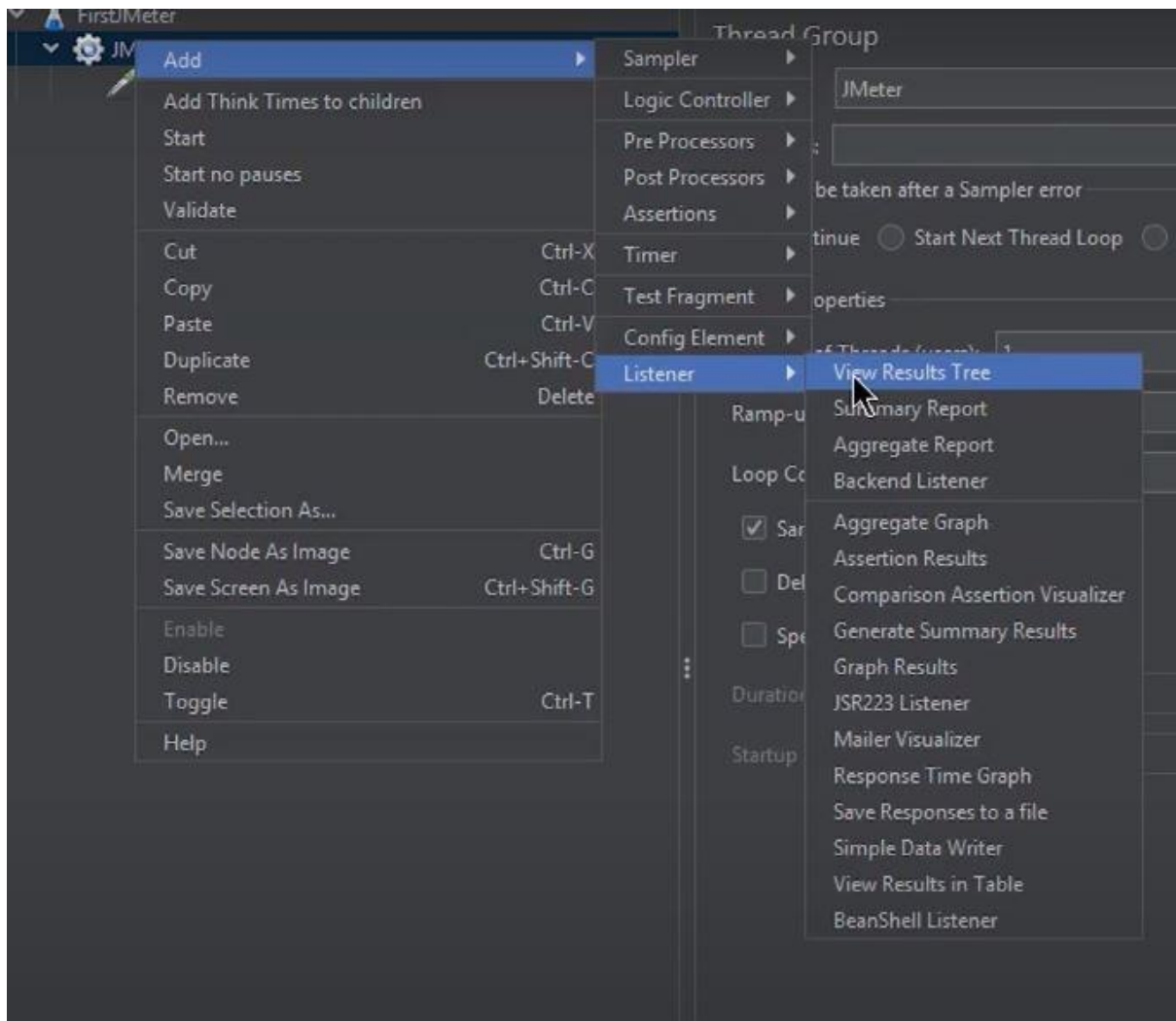
- Then in the path dialog box, leave a forward slash there.



Add Listeners

To determine what the results of the test will be, you need to add some more test elements.

- Right-click on FirstJMeter
- Go to listener options



In the box that appears, there are different types of reports that JMeter provides.

For now, select the two of these:

- View results in table
- View results tree

Run the test

- Now, save the test and run it
- For running the test, click the green button
- Now, check the results of the test
- Go to view results in table

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
1	15:43:41.932	Perform 1-2	Simpli	3092	✓	187940	242	429	352
2	15:43:41.686	Perform 1-1	Simpli	3412	✓	187893	242	676	616
3	15:43:45.098	Perform 1-1	Simpli	340	✓	187855	242	63	0
4	15:43:45.025	Perform 1-2	Simpli	440	✓	187879	242	43	0
5	15:43:45.439	Perform 1-1	Simpli	367	✓	187855	242	73	0
6	15:43:45.465	Perform 1-2	Simpli	440	✓	187855	242	42	0
7	15:43:45.807	Perform 1-1	Simpli	372	✓	187855	242	99	0
8	15:43:45.947	Perform 1-2	Simpli	419	✓	187855	242	101	0
9	15:43:46.180	Perform 1-1	Simpli	287	✓	187855	242	108	0
10	15:43:46.468	Perform 1-1	Simpli	383	✓	187855	242	80	0
11	15:43:46.366	Perform 1-2	Simpli	613	✓	187855	242	101	0
12	15:43:46.852	Perform 1-1	Simpli	319	✓	187855	242	127	0
13	15:43:46.979	Perform 1-2	Simpli	477	✓	187855	242	48	0
14	15:43:47.172	Perform 1-1	Simpli	378	✓	187855	242	238	0
15	15:43:47.550	Perform 1-1	Simpli	201	✓	187855	242	51	0
16	15:43:47.457	Perform 1-2	Simpli	322	✓	187855	242	62	0
17	15:43:47.751	Perform 1-1	Simpli	243	✓	187855	242	71	0
18	15:43:47.779	Perform 1-2	Simpli	307	✓	187855	242	43	0
19	15:43:47.994	Perform 1-1	Simpli	248	✓	187855	242	66	0
20	15:43:48.087	Perform 1-2	Simpli	362	✓	187855	242	65	0
21	15:43:48.243	Perform 1-1	Simpli	520	✓	187855	242	122	0
22	15:43:48.784	Perform 1-1	Simpli	351	✓	187855	242	120	0
23	15:43:48.449	Perform 1-2	Simpli	692	✓	187855	242	314	0
24	15:43:49.115	Perform 1-1	Simpli	267	✓	187855	242	58	0
25	15:43:49.142	Perform 1-2	Simpli	343	✓	187855	242	44	0
26	15:43:49.302	Perform 1-1	Simpli	279	✓	187855	242	74	0

You can see the green status that shows that the test was successful. The label name: FirstJMeter and the sample time can be seen.

- Then check “view results in a tree”

Thread Name: Perform 1-1
Sample Start: 2021-03-04 15:43:41 IST
Load time: 3412
Connect Time: 616
Latency: 676
Size in bytes: 187893
Sent bytes: 242
Headers size in bytes: 2372
Body size in bytes: 185521
Sample Count: 1
Error Count: 0
Data type ("text"|"bin"|""): text
Response code: 200
Response message: OK

HTTPSampleResult fields:
ContentType: text/html
DataEncoding: UTF-8

The green status or the success status can be seen here as well.

The test will be performed concerning the number of users, the ramp-up period, and the loop count set up in the first step.

Hence, here on the screen, it is evident that the test is still running. The time is taken, the number of tests being performed, and the status of each hit onto the Simplilearn website can be seen.

And this is how performance testing is performed with the help of JMeter.

Conclusion

By now, you would have learned what JMeter is, and how you can install JMeter on your system. You would have understood the entire process to download and install JMeter with the help of a hands-on demo. Furthermore, you would now be able to run a test in JMeter and perform performance testing.

For more information on how to download and install JMeter, you can watch [this](#) video.

If you have any questions for us, let us know in the comments section of the “How to download and install JUnit” tutorial. Our experts will answer them for you, at the earliest.