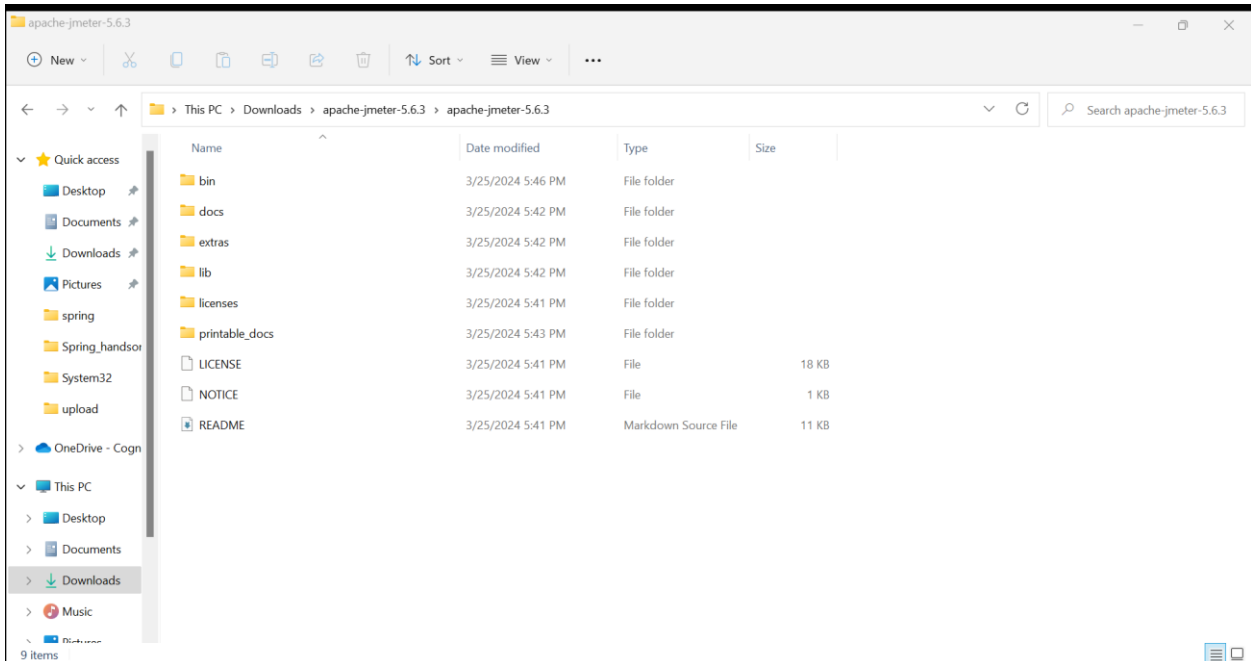


Setup and Run JMeter

Follow steps below to execute JMeter:

- Extracted the apache-jmeter-5.1.1zip file to D:
- Go to D:\apache-jmeter-5.1.1\bin in windows file explorer and executed the file jmeter.bat
- Check if this opens JMeter application

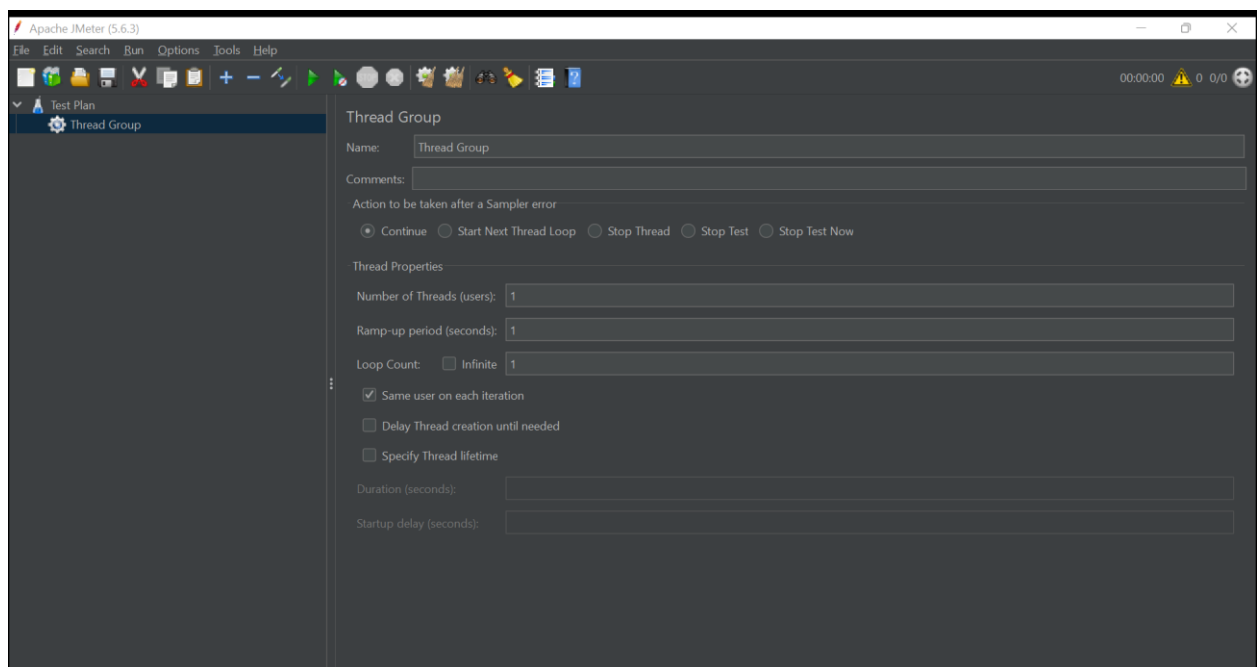


Test your favorite internet web site using JMeter

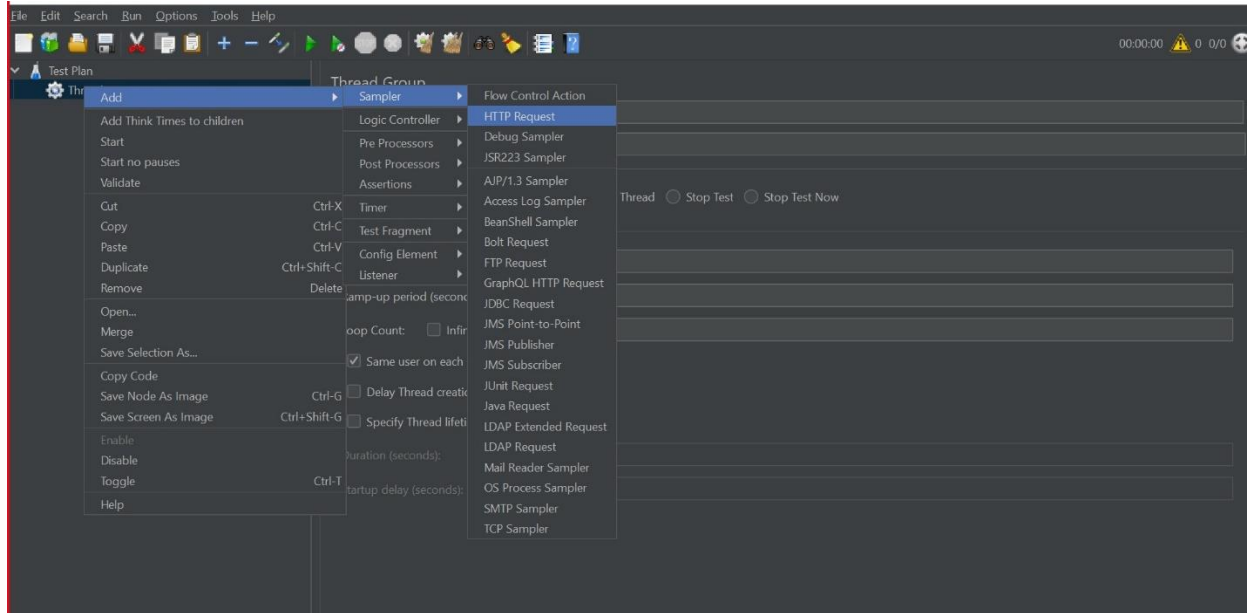
Follow steps below to configure testing of your favorite website:

Configuring the HTTP Request

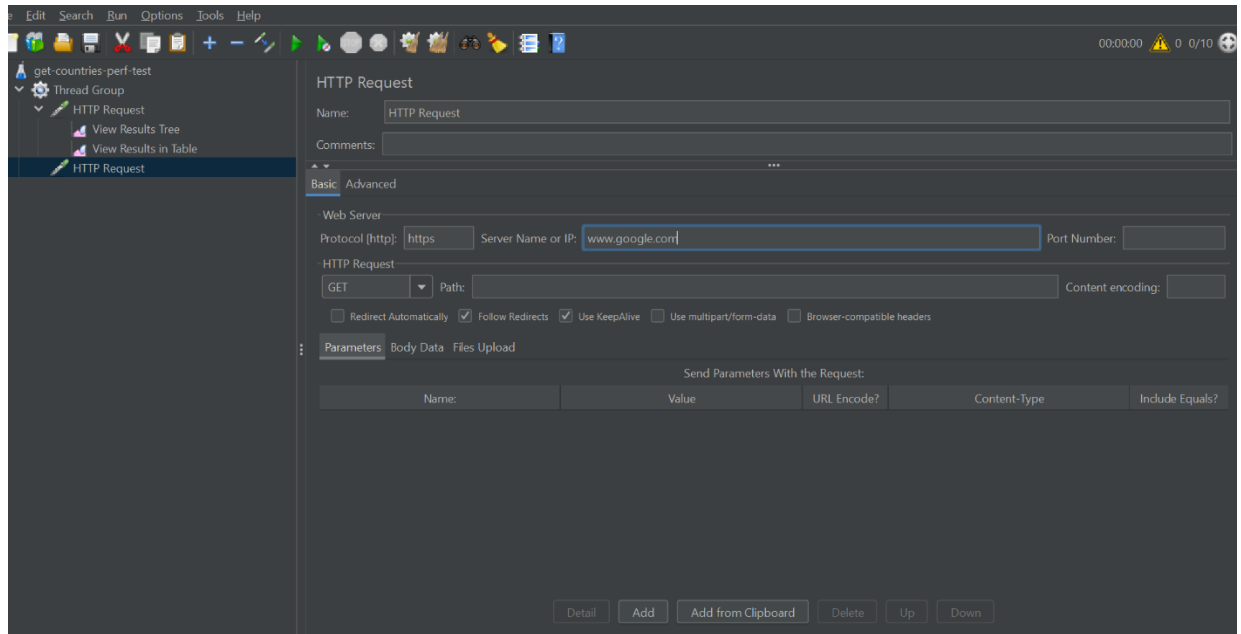
1. JMeter launch opens up new test plan creation option
2. Key in the test plan name as 'favorite-site-test'
3. Right click on the 'Test Plan' in the left hands side and choose the below option:
 - Add > Thread (User) > Thread Group



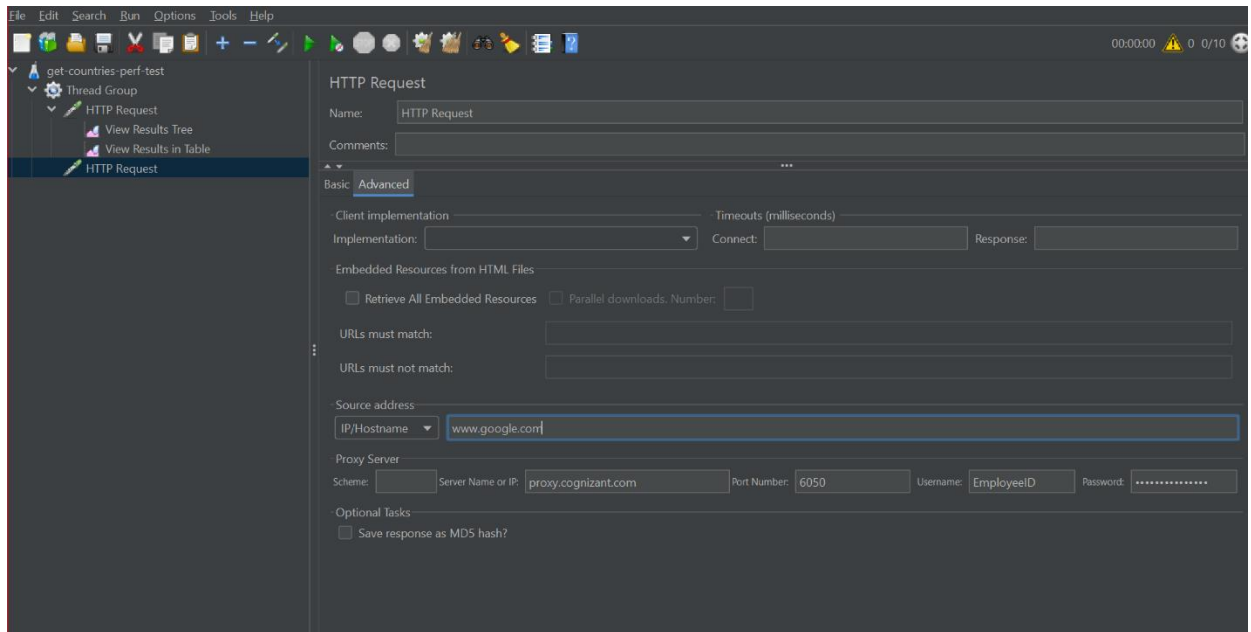
4. Leave the 'Thread Group' with default values
5. Right click on 'Thread Group' and select below option:
 - Add > Sampler > HttpRequest



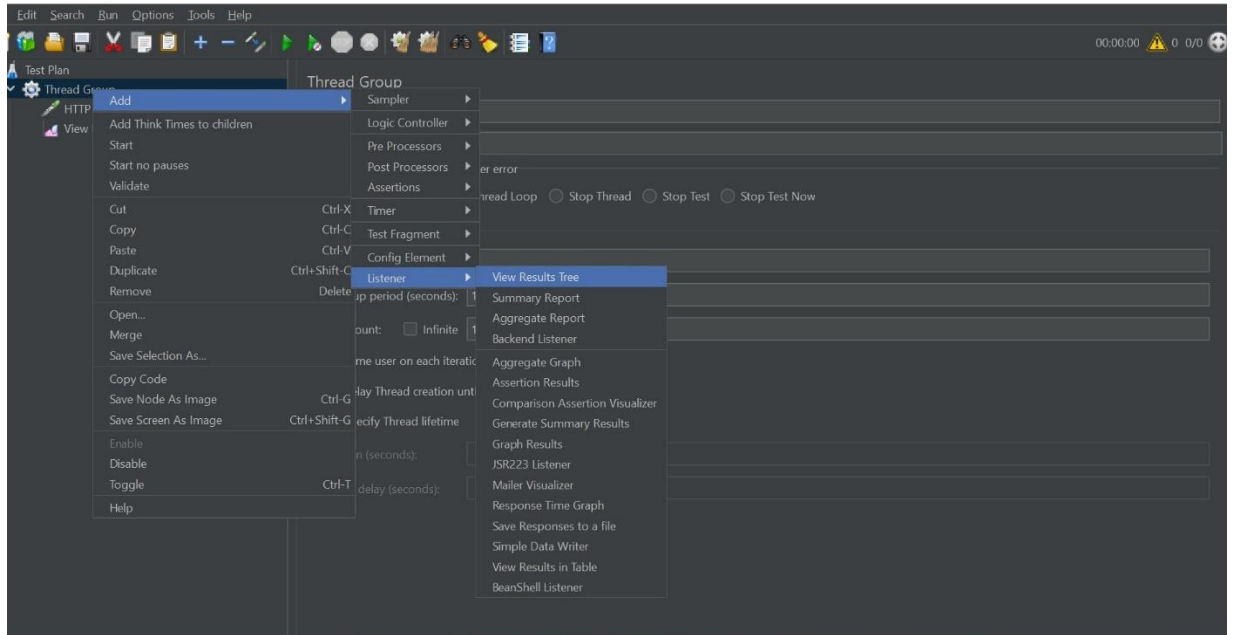
- Set protocol as http or https based on the prefix of your favorite website url (for example, if the URL is https://www.google.com, then enter https)



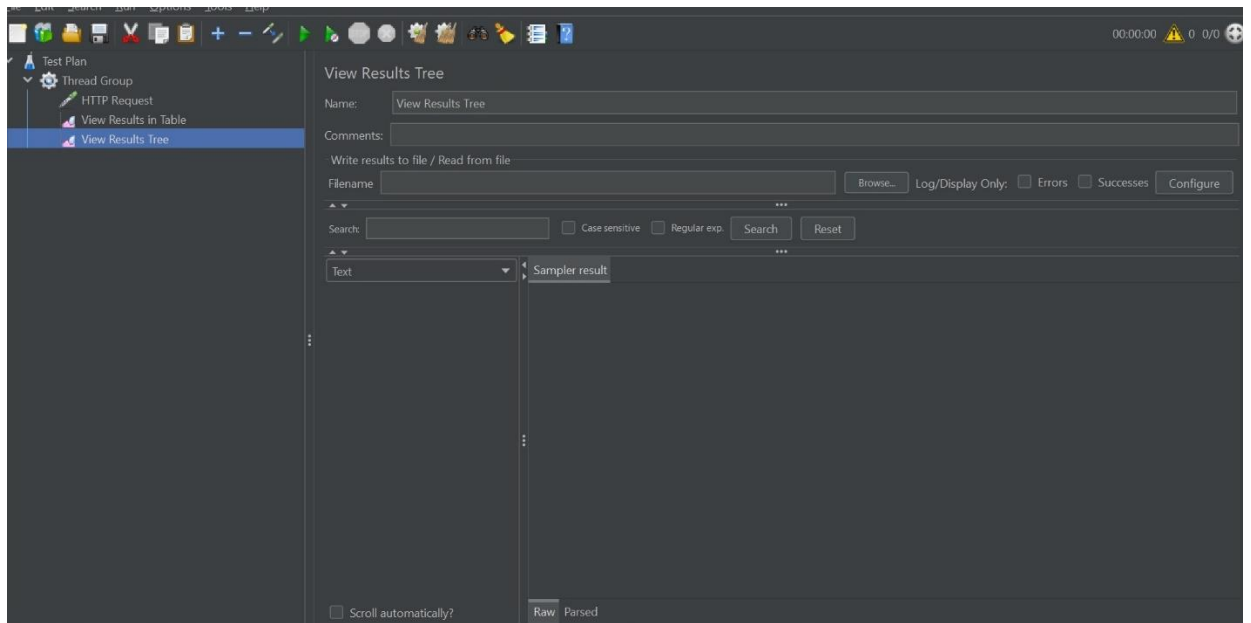
7. Click Advanced tab and set the proxy details:
 - Server Name: proxy.cognizant.com
 - Port Number: 6050
 - User Name: Employee ID
 - Password: Network Password
8. Enter host name (Example: www.google.com or www.cognizant.com)

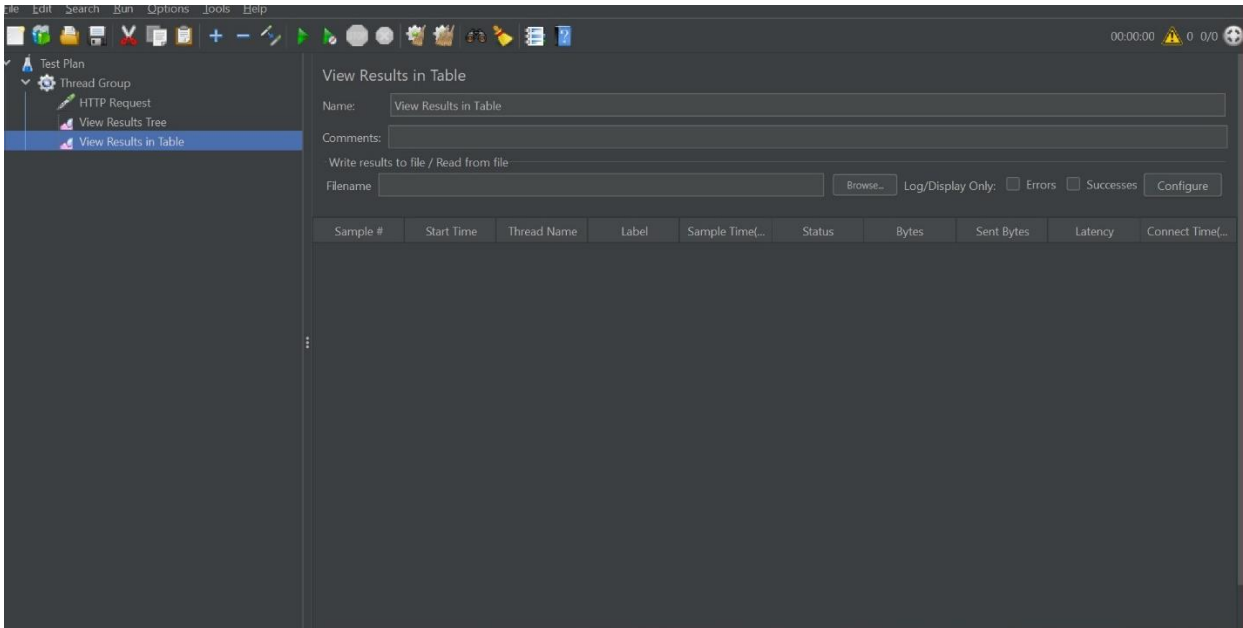
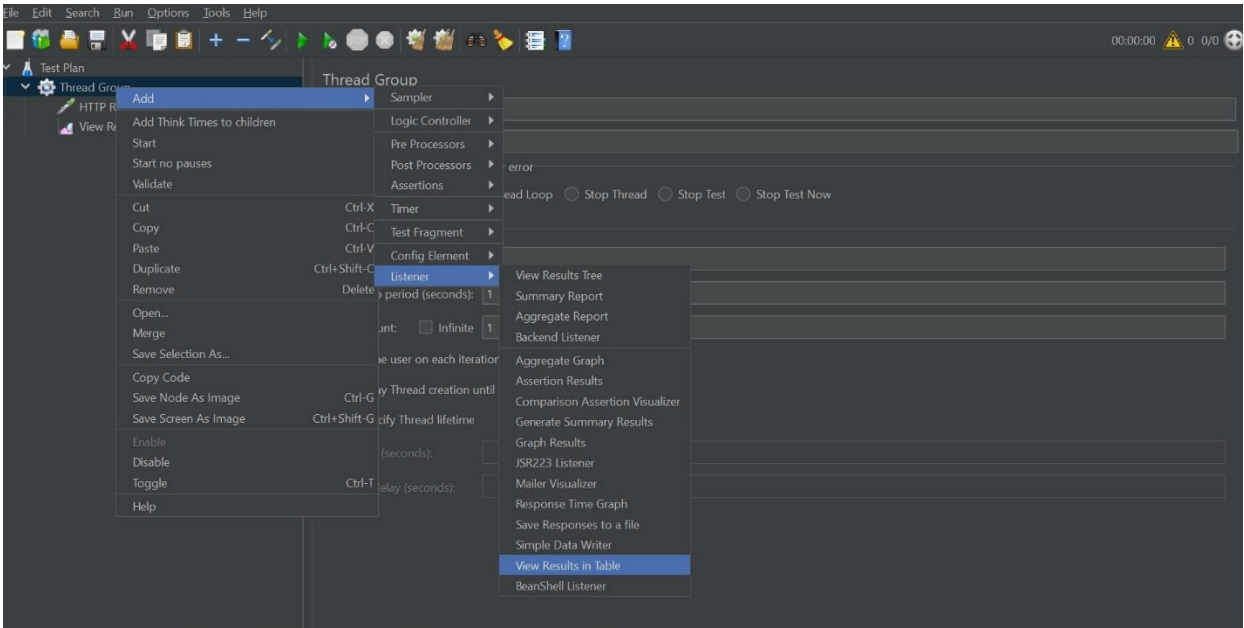


9. Right click on 'Thread Group' and select the below specified options separately:
- Add > Listener > View Results Tree
 - Add > Listener > View Results in Table



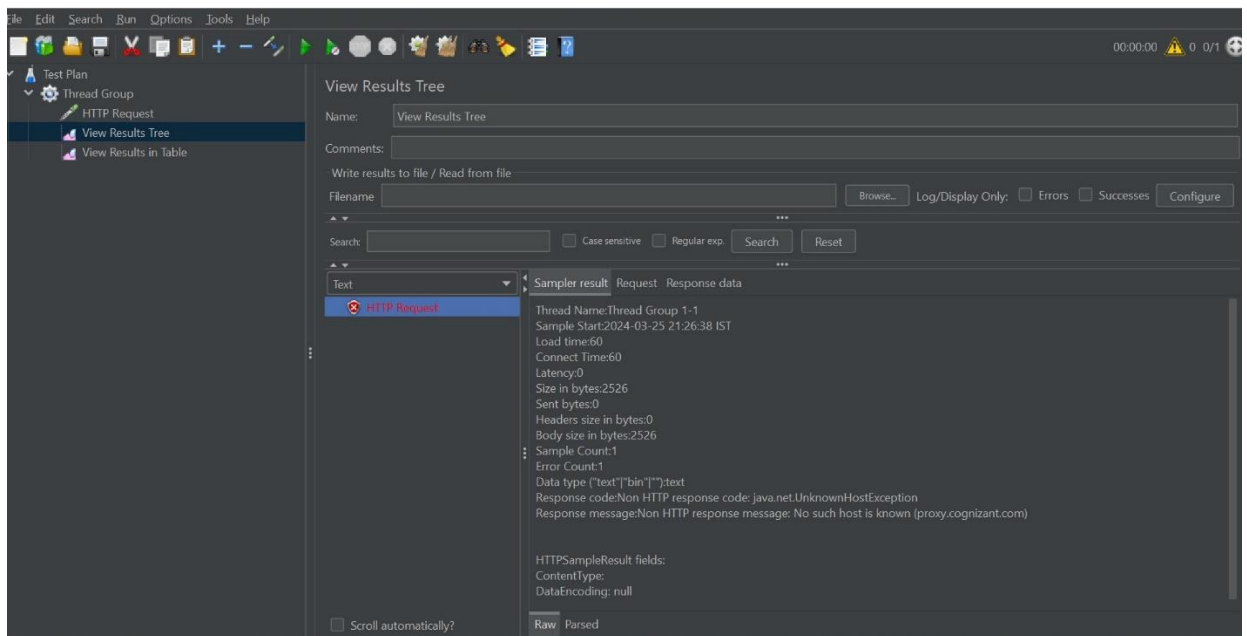
10.
11.

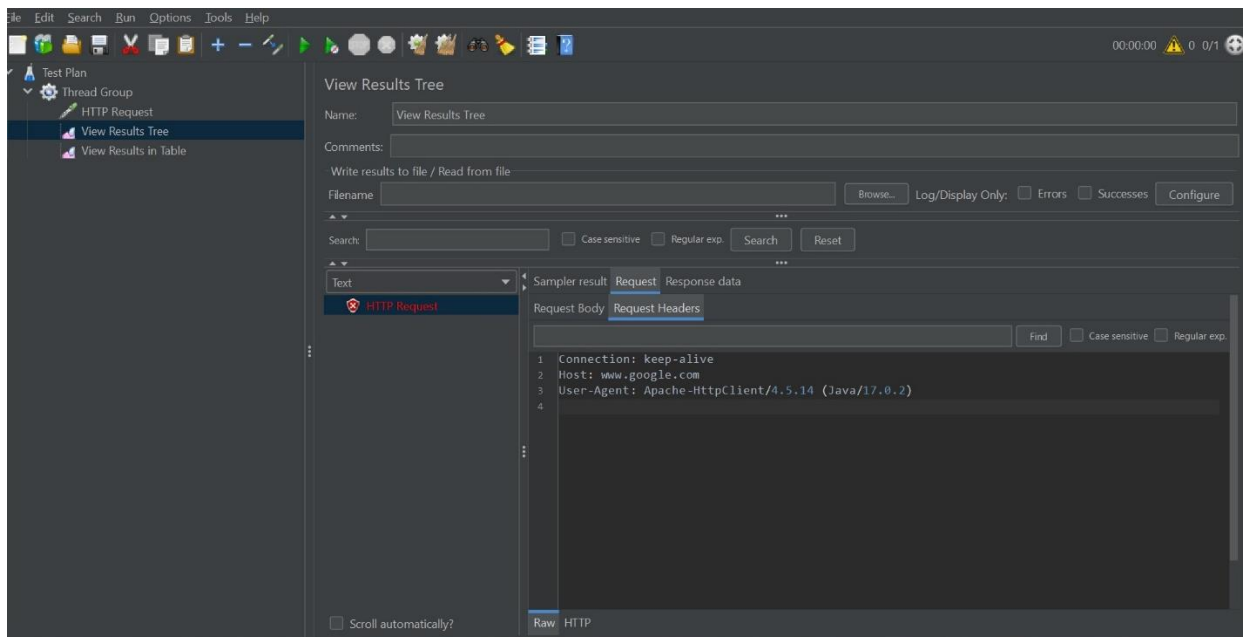
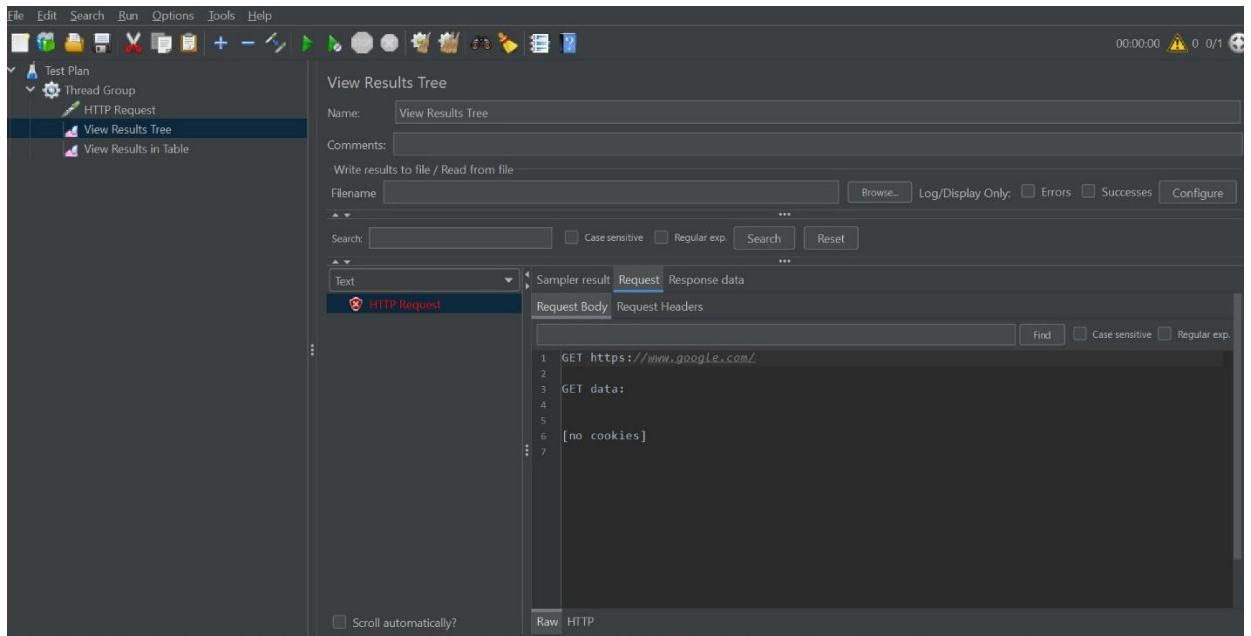


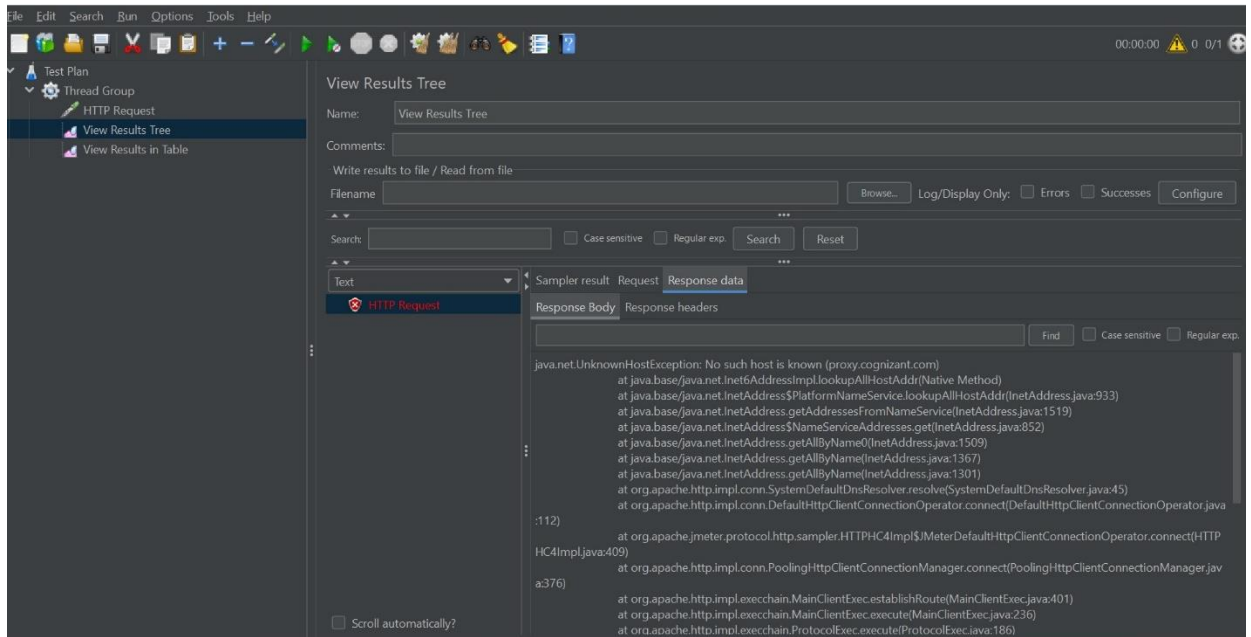


Executing the test and analysing the results

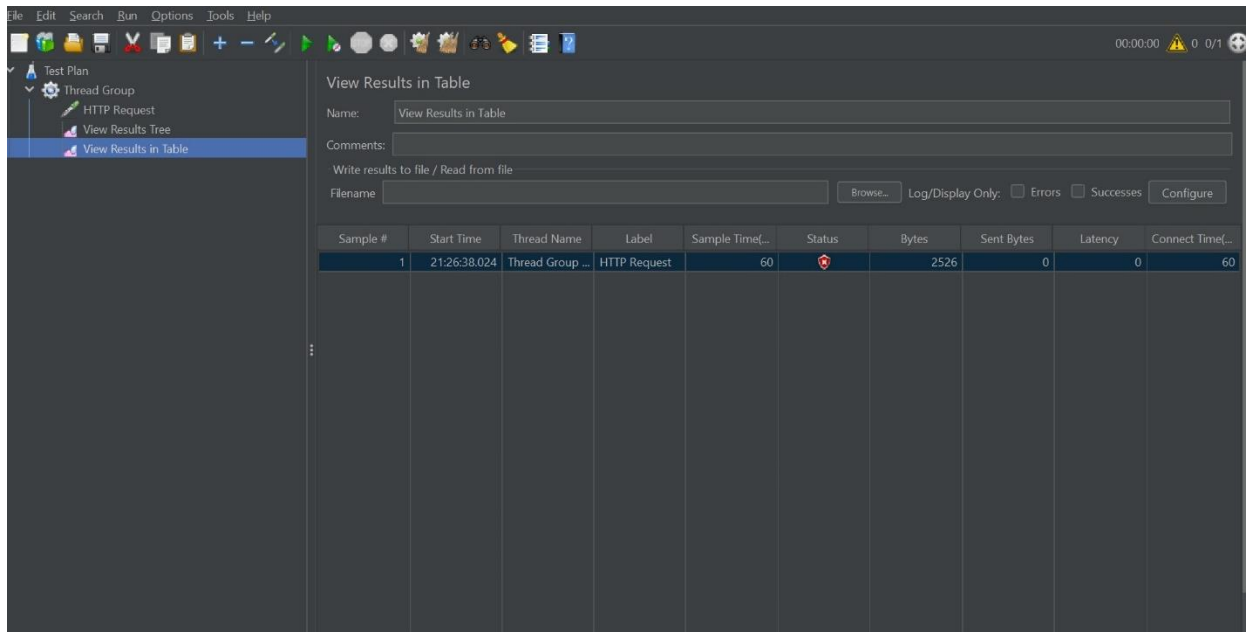
- To execute the test using the green play icon or using menu 'Run > Start'
- Click on View Results Tree and View Result in Table to see the results
- View Results Tree
 - Click on 'HTTP Request' in the left hand side
 - Click below tabs and view the details
 - Sampler Result
 - Request > Request Body
 - Request > Request Header
 - Response Data





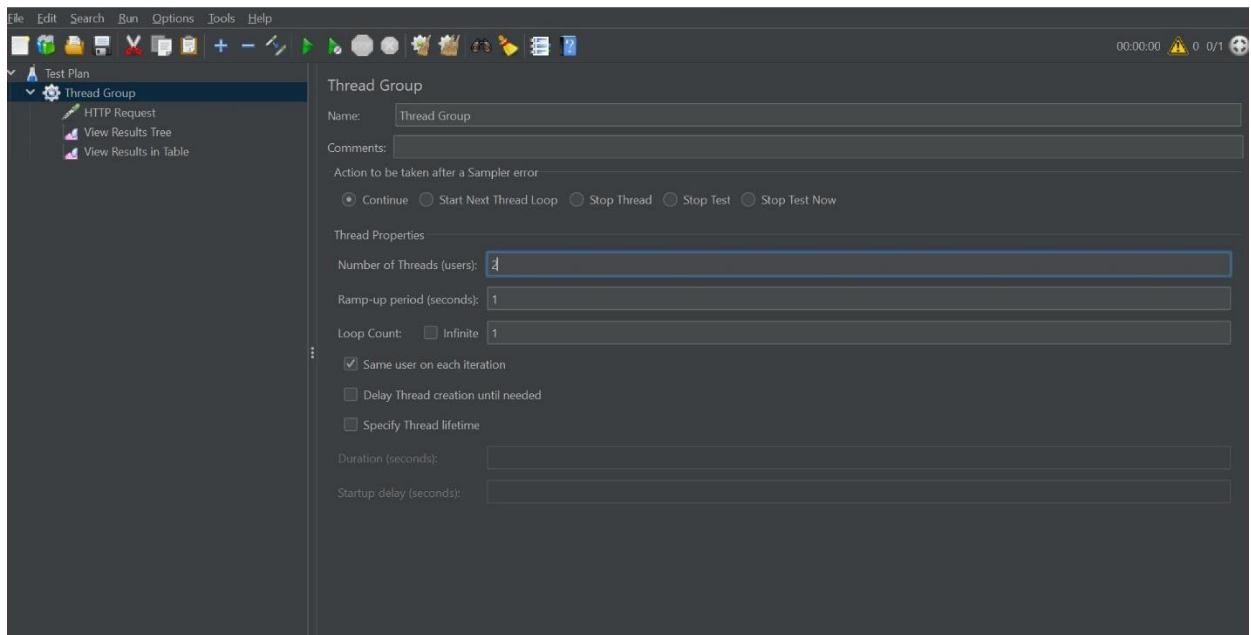


-
- View Results in Table
 - Sample Time (ms) - denotes the total time taken to receive the response. This data is represented in milliseconds (1 Second = 1000 milliseconds)
 - Status - HTTP Response Status
 - Bytes - Number of bytes received in response
 - Sent Bytes - Number of bytes sent as request
 - Connect Time (ms) - Number of milliseconds it took to connect to the server
-



Executing with multiple requests

- Clear the existing results by right clicking on 'View Results Tree' and 'View Results in Table', then selecting the 'Clear' option in the menu.
- Click on 'Thread Group'
- Change 'Number of Threads' to 2
-



- Run the test using play button.
- Now there will be two requests present in 'View Results in Table'

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file:

Filename: Log/Display Only: ☐ Errors ☐ Successes

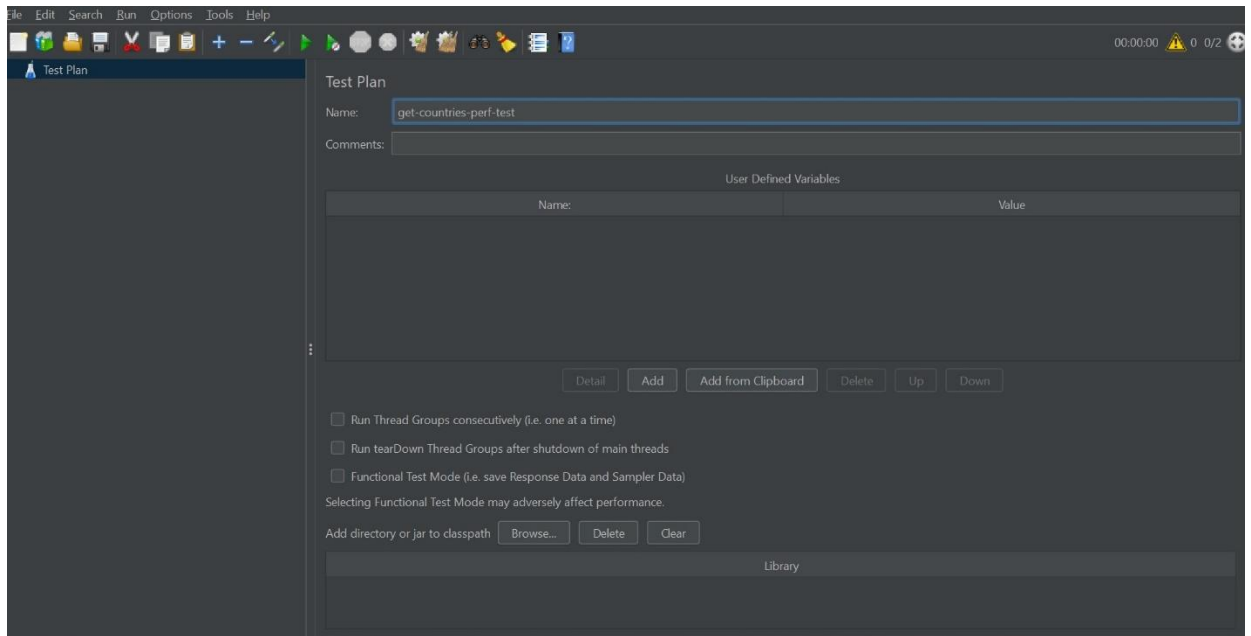
Sample #	Start Time	Thread Name	Label	Sample Time(...)	Status	Bytes	Sent Bytes	Latency	Connect Time(...)
1	21:32:11.401	Thread Group ...	HTTP Request	33	Error	2526	0	0	33
2	21:32:11.852	Thread Group ...	HTTP Request	0	Error	2240	0	0	0
3	21:32:14.281	Thread Group ...	HTTP Request	1	Error	2240	0	0	1
4	21:32:14.783	Thread Group ...	HTTP Request	1	Error	2240	0	0	1
5	21:32:15.857	Thread Group ...	HTTP Request	0	Error	2240	0	0	0
6	21:32:16.365	Thread Group ...	HTTP Request	0	Error	2240	0	0	0

Execute Performance Testing of RESTful Web Service with JMeter

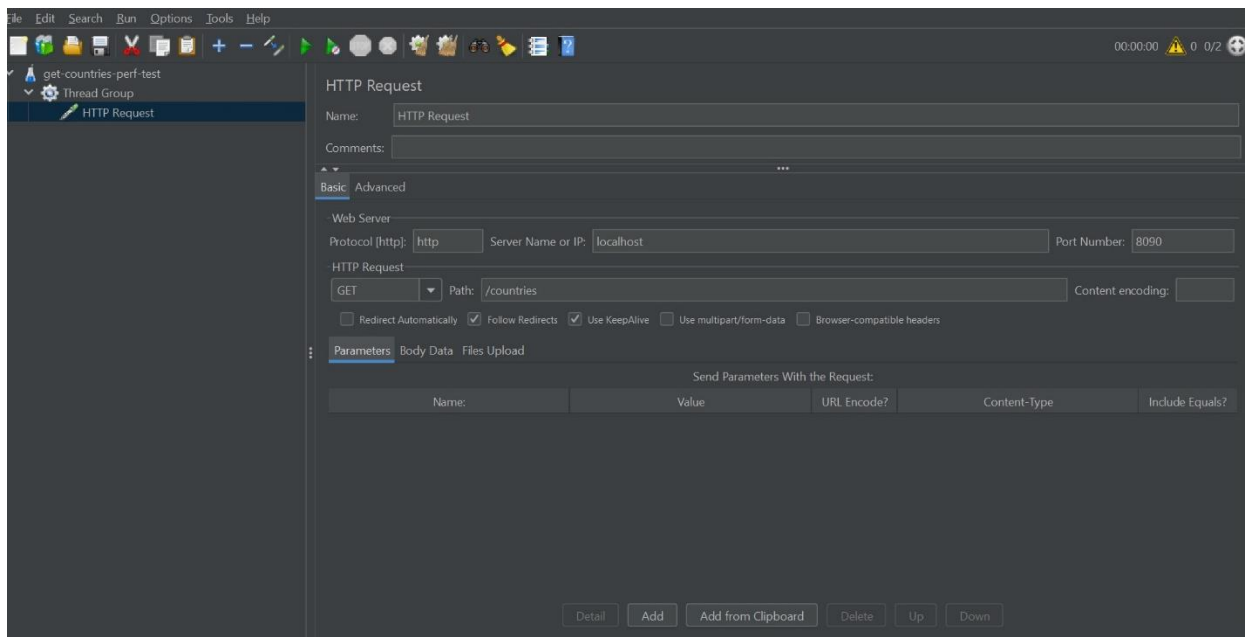
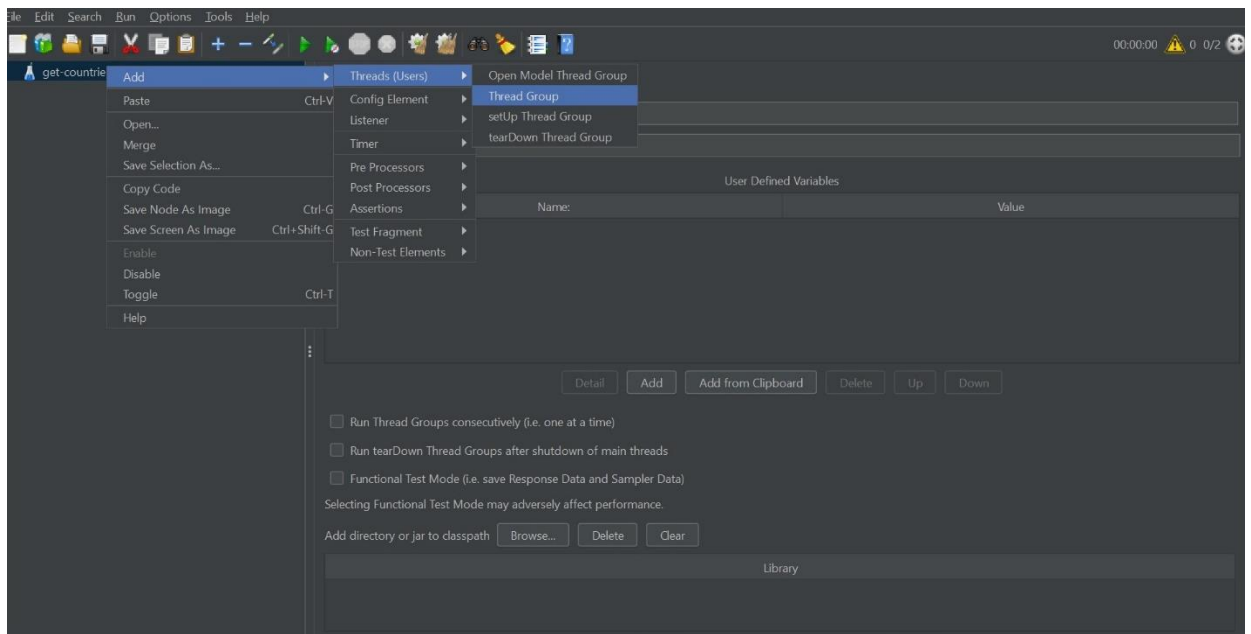
The RESTful Service for getting all countries needs to performance tested. Identify the maximum threshold of your service.

Follow steps below to complete the performance testing activity:

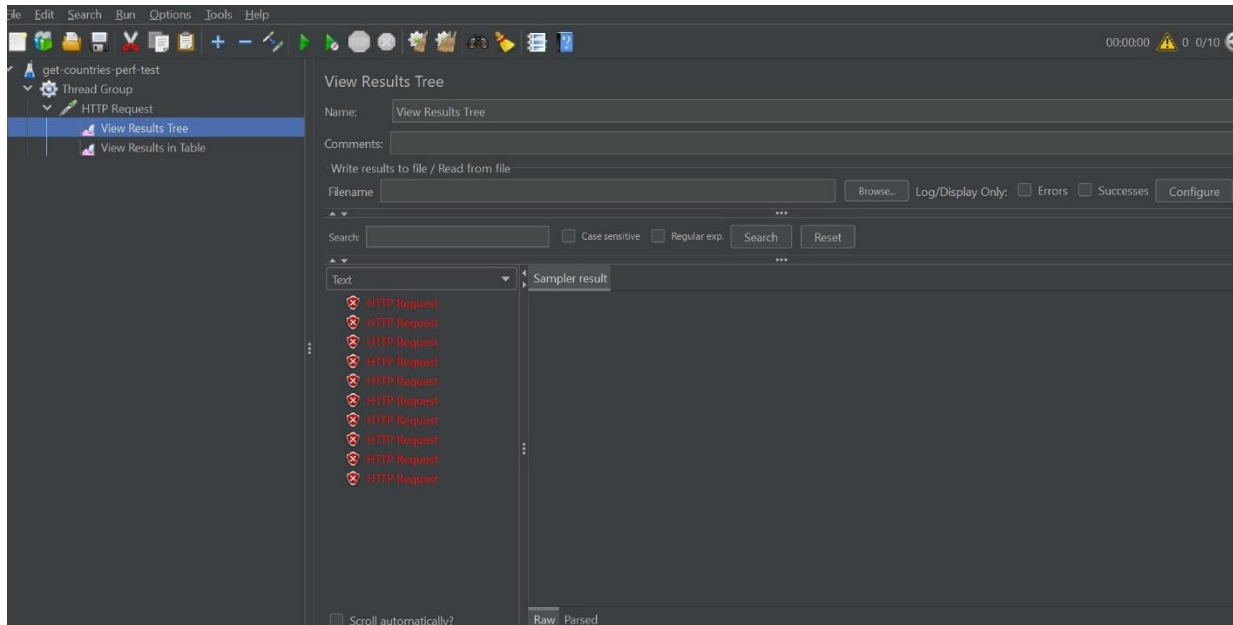
- Create a new Test Plan using menu File > New
- Name the test plan as 'get-countries-perf-test'



-
- Follow all configuration done in the previous hands on, but following configuration values needs to be changed:
 - Thread Group > Number of Threads = 10
 - HTTP Request > Basic
 - Protocol: http
 - Server Name: localhost
 - Port Number: 8090
 - Method: GET
 - Path: /countries
-



- Execute the test and see the results



The screenshot shows the 'View Results in Table' window in JMeter. The left sidebar is the same as the previous screenshot. The main panel shows the 'Name' as 'View Results in Table' and 'Comments' as empty. Below, there are fields for 'Write results to file / Read from file' with a 'Filename' input and a 'Browse...' button. There are also checkboxes for 'Log/Display Only', 'Errors', and 'Successes', along with a 'Configure' button. A table of test results is displayed below the search bar.

Sample #	Start Time	Thread Name	Label	Sample Time(...)	Status	Bytes	Sent Bytes	Latency	Connect Time(...)
1	21:38:17.159	Thread Group ...	HTTP Request	4	✓	2630	0	0	4
2	21:38:17.258	Thread Group ...	HTTP Request	3	✓	2630	0	0	3
3	21:38:17.357	Thread Group ...	HTTP Request	4	✓	2630	0	0	4
4	21:38:17.459	Thread Group ...	HTTP Request	2	✓	2630	0	0	2
5	21:38:17.556	Thread Group ...	HTTP Request	2	✓	2630	0	0	2
6	21:38:17.656	Thread Group ...	HTTP Request	2	✓	2630	0	0	2
7	21:38:17.759	Thread Group ...	HTTP Request	1	✓	2630	0	0	1
8	21:38:17.859	Thread Group ...	HTTP Request	2	✓	2630	0	0	2
9	21:38:17.957	Thread Group ...	HTTP Request	2	✓	2630	0	0	2
10	21:38:18.056	Thread Group ...	HTTP Request	2	✓	2630	0	0	2