PRACTICAL NO 8

AIM : Perform load testing on a web application using JMeter. Generate and analyze load scenarios. Additionally, explore bug tracking using Bugzilla as a tool for logging and tracking software defects.

Solution:

Apache JMeter is open source software, a 100% pure Java desktop application, designed to load test functional behavior and measure performance of web sites. It was originally designed for load testing web applications but has since expanded to other test functions.

Apache JMeter may be used to test functional and performance both on static and dynamic resources (files, Servlets, Perl scripts, Java Objects, Data Bases and Queries, FTP Servers and more). It can be used to simulate a heavy load on a server, network or object to test its strength or to analyze overall performance under different load types. You can also use it perform a functional test on websites, databases, LDAPs, webservices etc.

JMeter is not a browser. As far as web-services and remote services are concerned, JMeter looks like a browser (or rather, multiple browsers); however JMeter does not perform all the actions supported by browsers. In particular, JMeter does not execute the Javascript found in HTML pages. Nor does it render the HTML pages as a browser does (it's possible to view the response as HTML etc, but the timings are not included in any samples, and only one sample in one thread is ever viewed at a time).

PRE-REQUISITES:
1) To Download "JDK":
• Visit https://www.oracle.com/technetwork/java/javase/downloads/jdk12- downloads-5295953.html
• Download this file "jdk-12.0.2_windows-x64_bin.exe" and install it.
2) To Download "Apache JMeter":
• Visit https://jmeter.apache.org/download_jmeter.cgi
• Under section "Apache JMeter 5.6.3 (Requires Java 8+)"
• Under sub-section "Binaries", download "apache-jmeter-5.6.3.zip" file. • Installation:
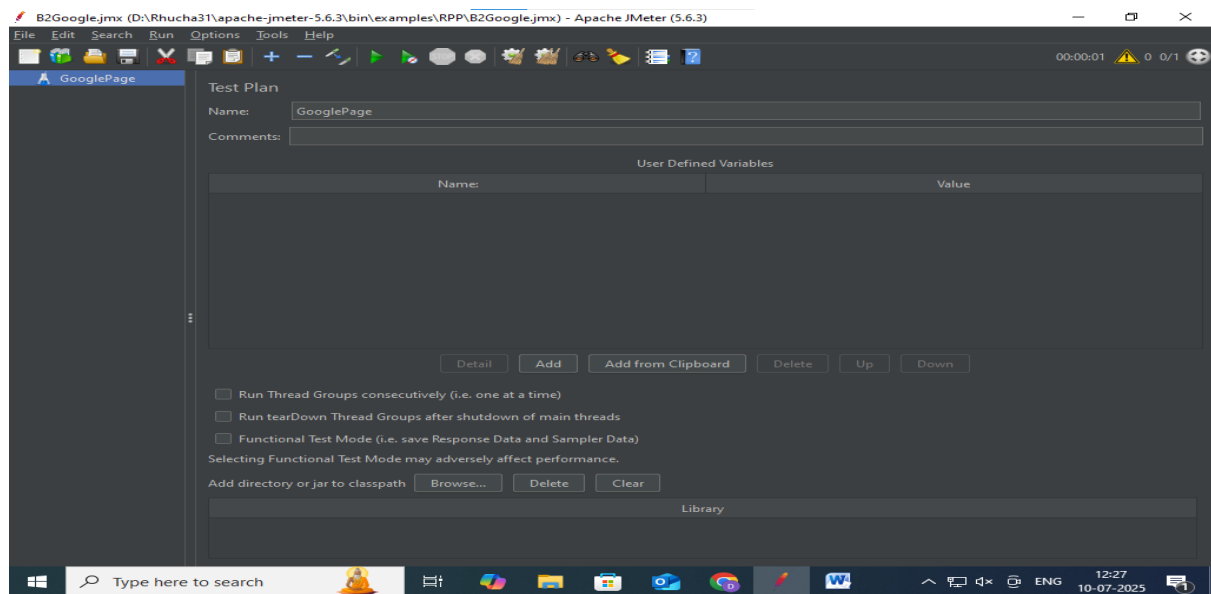**➢ Extract the "apache-jmeter-5.6.3.zip" file.**

➢ Navigate to: apache-jmeter-5.6.3 > bin > the "ApacheJMeter.jar" file is your working space.

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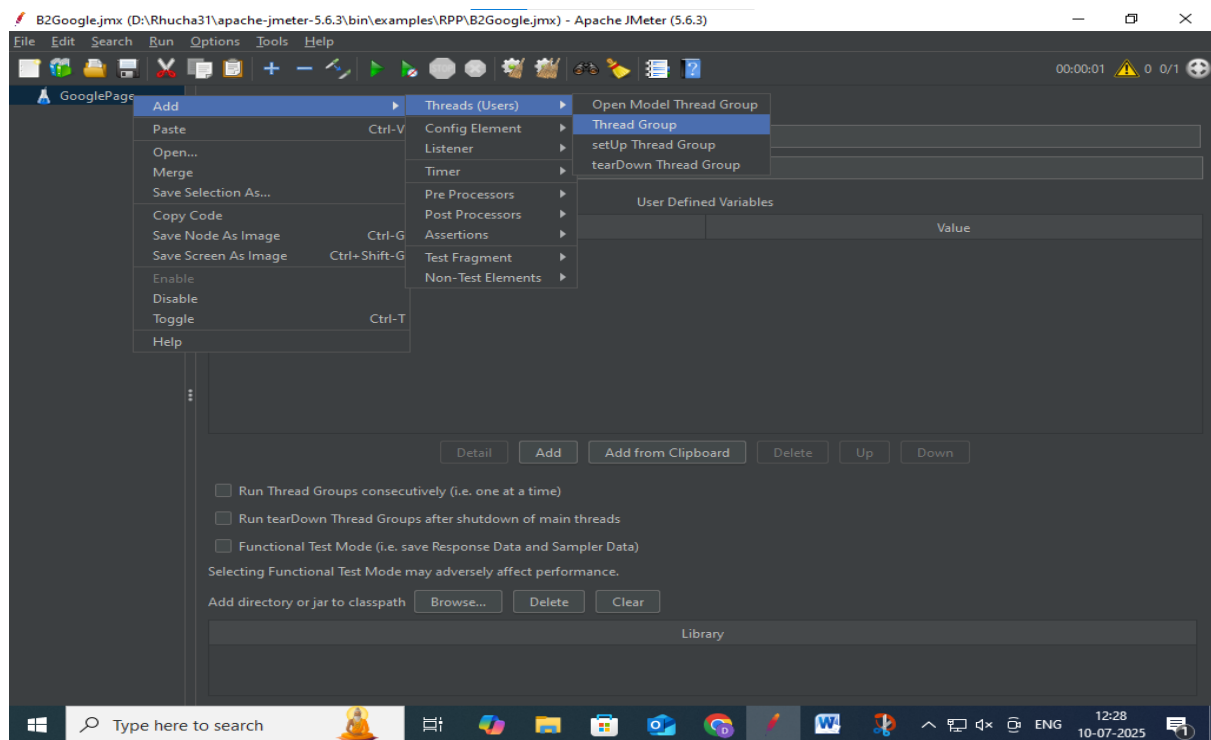**Load Testing /Performance Testing using Apache –jmeter-5.0**

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Step1: Open Jmeter folder □ bin □ Open executable jar file □ Create test plan □ Change name of created test plan □ Name according to the websites
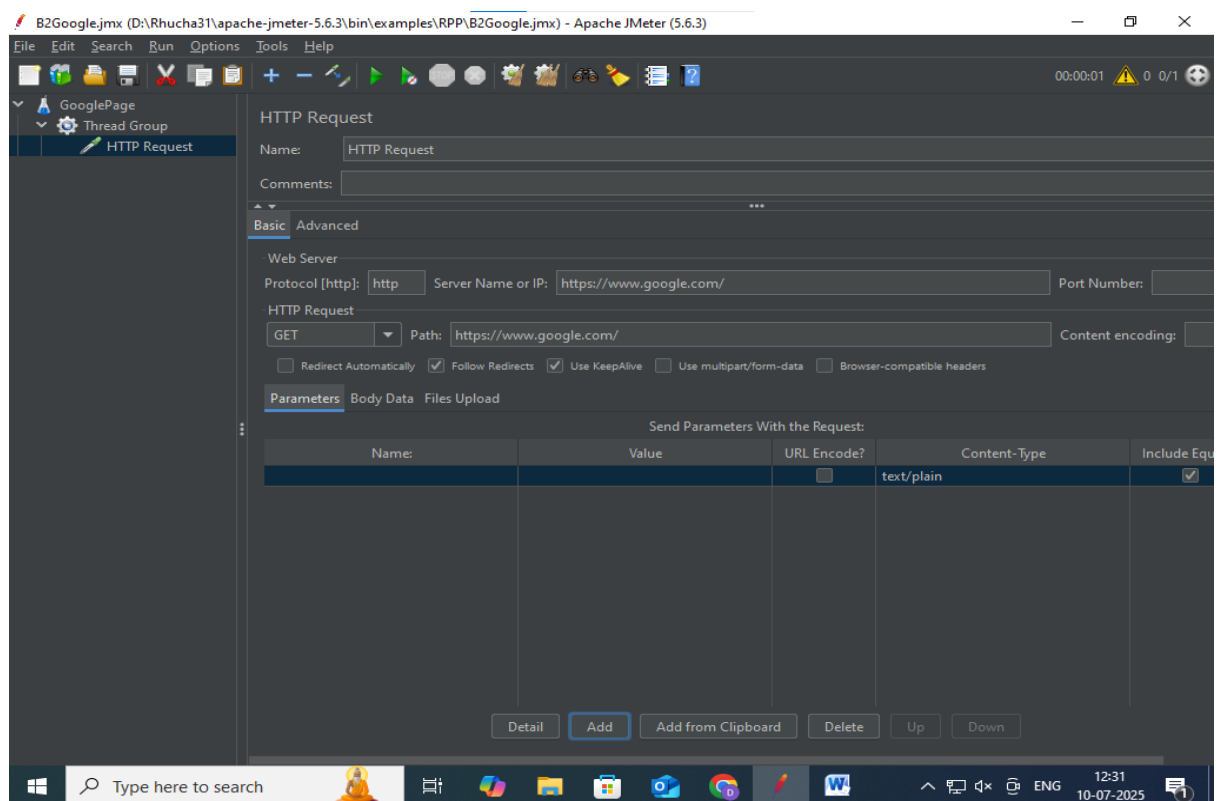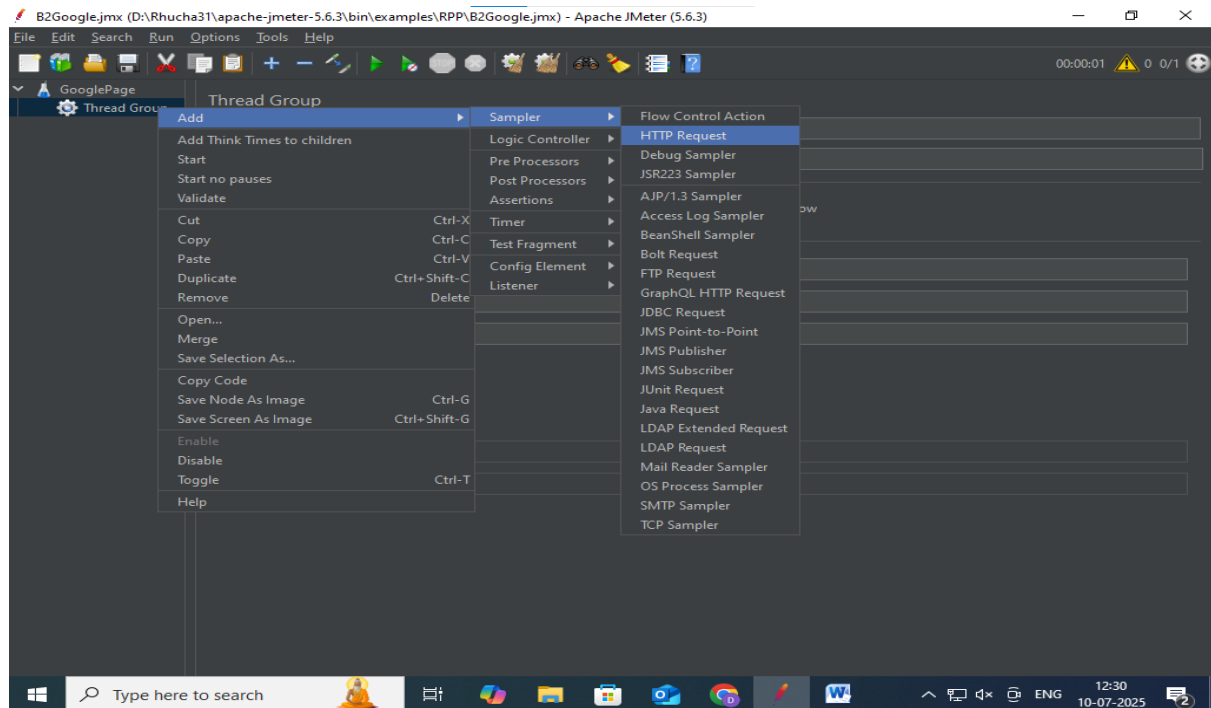

Step2: Create thread group

Right click on project □ Add □ Threads □ Thread Groups Name it according to desire.
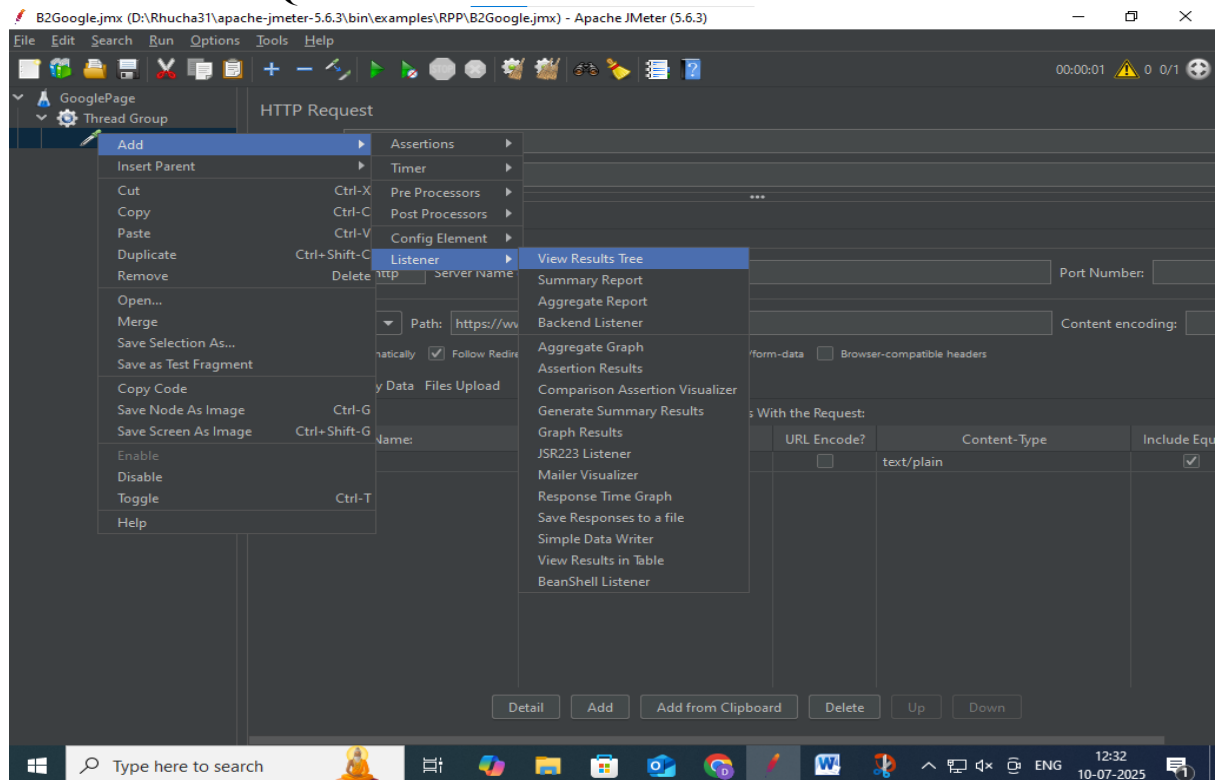

Step3: Add Http Request

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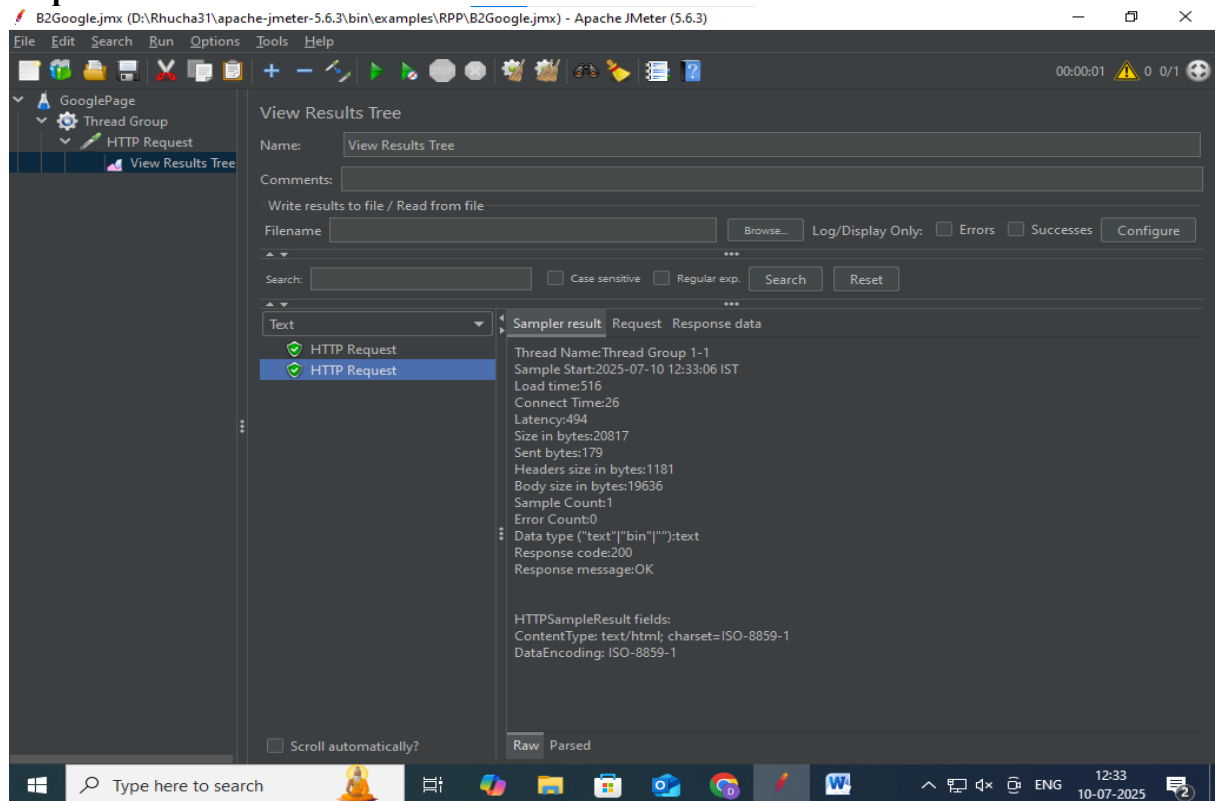Right click on created Thread group ☐ Add ☐ Sampler ☐ Http Request

Step4: Add Results for output

Right click on created Thread group ☐ Add ☐ Listener ☐ View Result Tree

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Step5: Run

Step 6: Add Results for output

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Right click on created Thread group ☐ Add ☐ Listener ☐ View Summary Report