Non-Functional Testing
(Load Testing)

Non Functional Testing is a performance testing technique that uses Apache JMeter and Brazemeter, an open-source tool, to evaluate the performance and behavior of web applications, APIs, and other services under different load conditions. It simulates multiple users or requests accessing the system to analyze its performance, reliability, and scalability. JMeter testing is commonly used to identify bottlenecks and ensure that applications can handle anticipated trafc loads effectively.

Characteristics of JMeter Testing:

1. **Simulative**:
   Models real-world scenarios by simulating multiple users and requests.

2. **Versatile**:
   Supports testing of web applications, APIs, databases, and more.

3. **Scalable**:
   Can simulate both small-scale and large-scale loads by increasing the number of virtual users.

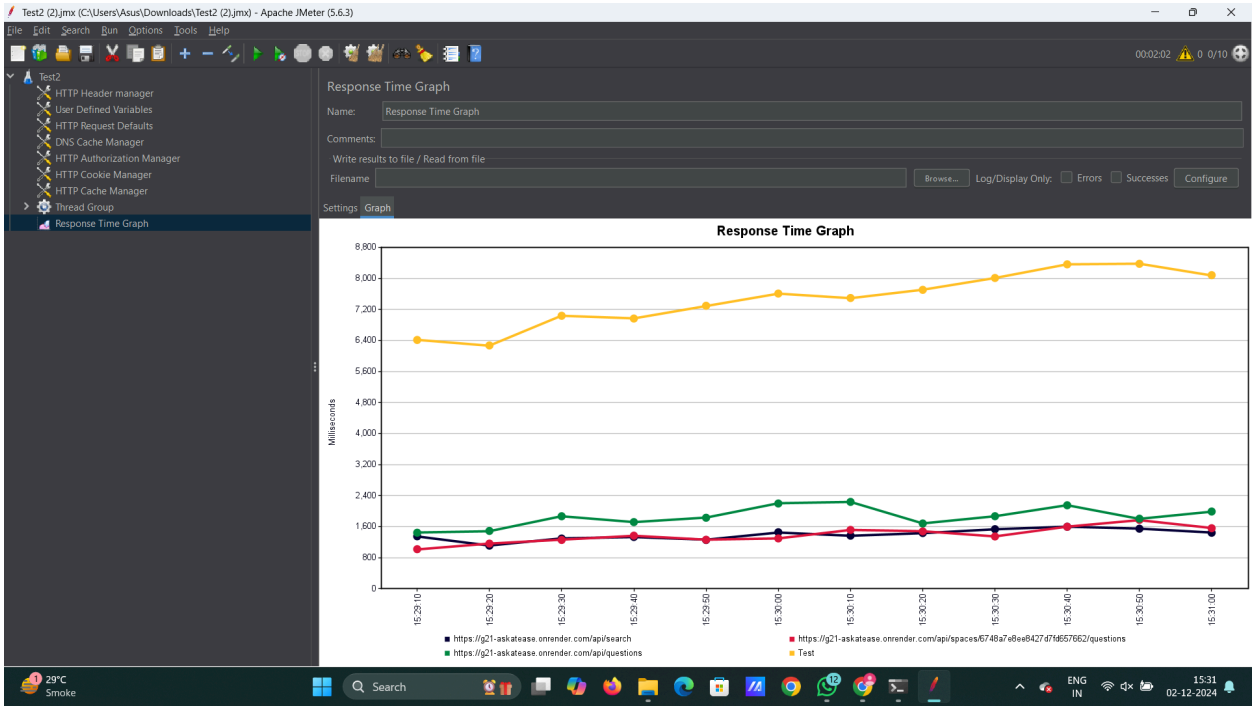
4. **Insightful**:
   Provides detailed reports and visualizations, such as graphs and tables, to analyze performance metrics like response time, throughput, and error rates.

5. **Efficient**:
   Automated and script-based, enabling rapid test execution and reusability.

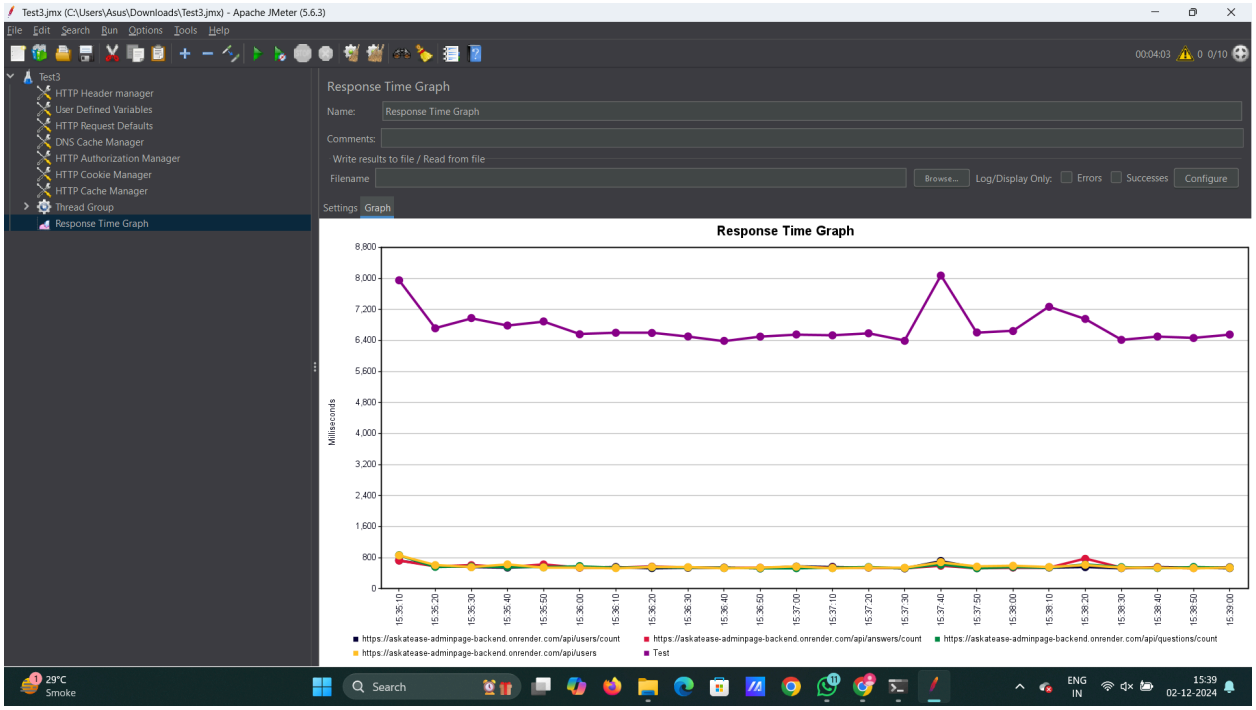
6. **Extensible**:
   Supports plugins and integrations for additional functionalities.

Brazemeter : Brazemeter is an online web site and extension to convert site visit information into .jmx le which is executable in jmeter.

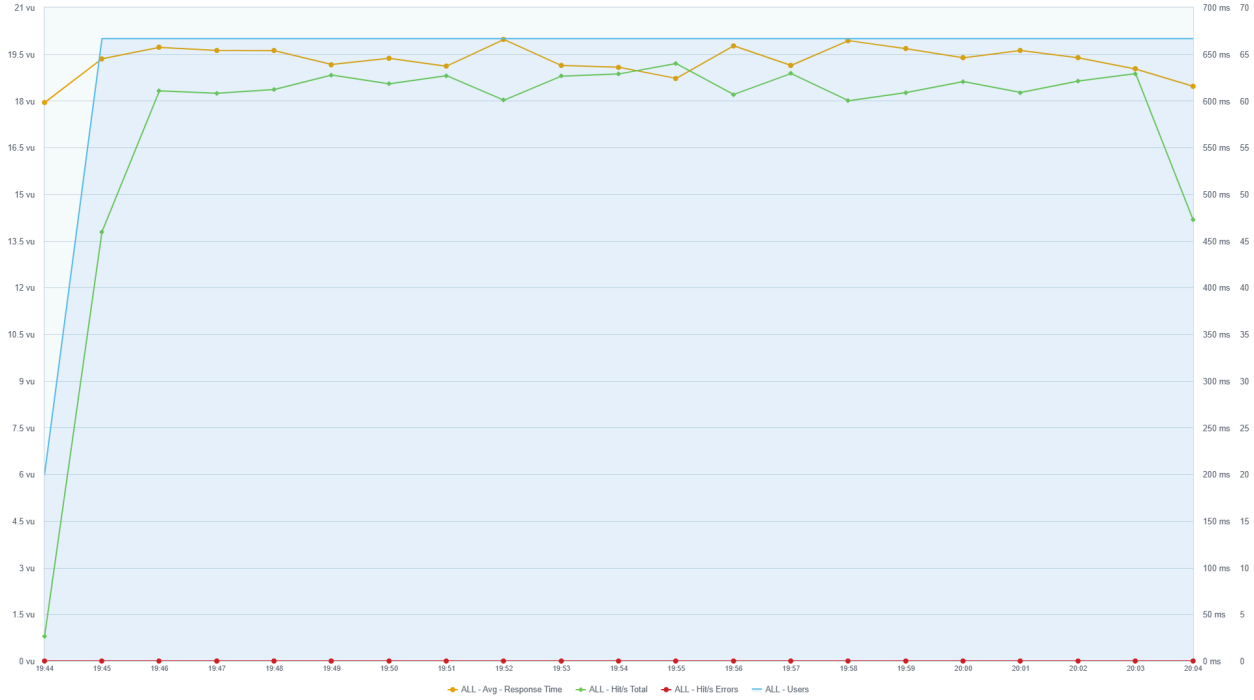
Response time graph of home page (using Apache JMeter):



Response time graph of Admin side (using Apache JMeter):



Main Time-line chart (using blazemeter application):



Engin health (Engine Load) (using blazemeter application) :

Request Stats (using blazemeter application) :

Label Id	Element Label	# Samples	Avg. Response	Avg. Hits/s	90% line (i	95% line (i	99% line (i	Min Respc	Max Respc	Avg. Band	Error Perc	Has Label	Concurrency
b5c7aed7cd2a	ALL	72501	645.53	60.47	1388	2057	2477	297	5351	47.84	0		20
8e40496bb083	https://g21-askatease.onrende	58010	403.54	48.38	436	1163	1438	297	3851	23.93	0		20
532eaabd9574	Test	14491	1614.25	12.11	2365	2465	2795	1242	5351	23.95	0		20

Overall testing (Summary) (using blazemeter application) :