Performance Testing

Date	7.11.25
Team ID	NM2025TMID00037
Project name	Streamlining ticket assignment for efficient support operation
Maximum mark	4

1. Introduction

Performance testing is a critical phase that ensures the ticket assignment system performs efficiently under different workloads and user demands.

The main objective is to evaluate how well the system handles multiple support requests, maintains speed, and ensures stability while managing ticket operations automatically.

2. Purpose of Performance Testing

- The goal of performance testing in this project is to:
- Assess response time of the ticket assignment system.
- Check scalability when multiple users access the support platform simultaneously.
- Identify bottlenecks in automatic ticket routing and prioritization.

3. Key Performance Metrics

Metric	Description	Result
Response Time	Time taken for the system to assign a ticket after submission	Less than 3 seconds
Scalability	System's ability to handle increased workload	100 concurrent users
Throughput	Number of tickets assigned per minute	50+ tickets/minute
CPU/Memory Usage	Resource usage during heavy operations	Below 70% utilization
Error rate	Percentage of failed assignments	Less than 1%

4. Types of Performance Testing Conducted

1 Load Testing – To check the performance when multiple users submit tickets at the same time.

2 Stress Testing – To test how the system behaves under extreme ticket loads.

3 Scalability Testing – To determine whether the system can scale up or down with increased workload.

4 Endurance Testing – To verify system stability over long periods of continuous operation.

5. Tools Used

- JMeter / LoadRunner – for simulating multiple users and measuring response times.
- Postman – for API performance testing.
- System Monitor Tools – for tracking CPU and memory usage during load tests.

7. Conclusion

The performance testing confirms that the Streamlined Ticket Assignment System operates with high efficiency, stability, and scalability.

It can handle large volumes of support requests without significant delays, making it suitable for real-time customer support operations.

Minor optimizations can further improve performance under extreme conditions.