

# Performance Testing Phase Report

## Project Title: FoodBridge – Supplying Leftover Food to the Poor

Team ID:	NM2025TMID03850
Team Size:	4
Team Leader:	Karthick Yogesh M
Team Members:	Sargunan S, Selvabharathi S, Vishal J

### 1. Objective:

To evaluate the system's performance under various conditions and ensure the FoodBridge platform runs efficiently when multiple users interact simultaneously, especially during peak hours.

### 2. Scope:

This testing focuses on measuring response time, system stability, resource utilization, scalability, and data handling capacity under different user loads.

### 3. Tools Used:

- Apache JMeter – for load and stress testing.
- Postman – for API performance checks.
- Firebase Performance Monitoring – for backend performance tracking.

### 4. Test Scenarios:

Test Case ID	Scenario	Expected Result	Actual Result	Status
TC01	50 users request food data simultaneously	Response time < 3s	Response time 2.4s	Passed
TC02	100 users access the donor list	Server remains stable	Server stable	Passed
TC03	API stress test (500 requests/min)	No timeout errors	Few timeout errors	Minor Issue
TC04	Database performance under heavy write operations	Data correctly inserted	All entries successful	Passed

### 5. Observations:

- The system handled concurrent requests efficiently.
- Response time increased slightly during stress testing but remained within acceptable limits.
- Database performance and API throughput were stable.

### 6. Conclusion:

The FoodBridge system demonstrated good scalability, reliability, and response time under load. Minor optimizations can further improve API efficiency and caching mechanisms.