# Demo Blaze Website

## Performance Requirements Document

**Date: June 13, 2025**

## Objective

- Ensure that the Demoblaze website can handle expected user traffic under normal and extreme conditions, without degradation in user experience or critical failures.

## Target User Load

- The system should be tested with 100 concurrent users to simulate normal daily load.
- A short spike of 150 users should be simulated for about 2 to 5 minutes to reflect peak traffic scenarios.
- The entire test duration should be 30 minutes, including ramp-up and steady-state phases.
- Users should be ramped up gradually until the target load is reached.
- During load, users will perform realistic actions like browsing products, adding items to the cart, and viewing the cart page.

## Stress Test Goals

- The objective of the stress test is to find the breaking point of the system.

- Gradually increase the load up to 300 virtual users.

- Load should be increased in steps.

- Monitor the system's response under high pressure, looking for high response times, timeouts, errors, or system crashes.

## Success Criteria

- The average response time should be under 2 seconds for all main operations.

- The 95th percentile response time should not exceed 4 seconds.

- The error rate must stay below 1% during load testing.

- The system should handle at least 30 requests per second without degradation.

- During stress testing, the system should fail gracefully (slow responses or controlled error messages), not crash entirely.

## ◆ Project Scope

The performance test must cover the following key user actions that represent the most common user flows on the website:

- **Register** – Create a new user account.
- **Login** – Authenticate using valid user credentials.
- **View Category** – Navigate to categories such as *Laptops*, *Phones*, or *Monitors*.
- **View Product** – Open the details of a selected product.
- **Add to Cart** – Add a product to the shopping cart.
- **View Cart** – Navigate to the cart page and view the list of added products.
- **Place Order** – Complete a purchase using test data.
- **Logout** – Log out from the current session.

## ◆ What You Need to Deliver

- **Aggregate Report** – A CSV or Excel file showing key performance metrics such as response time, throughput, and error rate.
- **HTML Report** – A visual report generated by the tool (e.g., JMeter HTML Dashboard) showing graphs and detailed test statistics.