

Demo Blaze Website

Performance Test Report

Version	Date	Created By
V1	13/6/2025	Abdelrahman Fahmy

Introduction

This report presents the findings from performance and stress testing conducted on the Demoblaze website. The aim was to evaluate the system's behavior under both expected and extreme user loads, ensuring it delivers a stable and responsive user experience.

Objective:

- Ensure that the Demoblaze website can sustain normal and peak user traffic without critical failures or significant degradation in performance.
- Assess the system's ability to recover and behave predictably under stress.

Features:

- **User Management:** Registration, Login, Logout
- **Shopping Flow:** Browsing Products, Add to Cart, View Cart
- **Checkout Process:** Checkout, Add Card, Pay

Response Time:

- Average response time for core actions should be **under 2 seconds**.
- The **95th percentile** response time must not exceed **4 seconds**.

Error Rate:

- The percentage of failed requests during testing. The error rate should remain **below 1%**.

Load Profile 1 [100 users - 20 minutes]

In this load profile, we simulate the system response when 100 users are doing the all scope functions in a period of 20 minutes.

Number of users	Duration	Average Response Time	95% Line	Error %
100	20 minutes	2049 ms	4401 ms	0.02 %

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Maximum	Error %	Throughput
Open Browser	100	3794	2843	6058	8912	9581	1083	12297	0.00%	2.2/sec
Register	100	628	470	1073	1128	1666	432	1696	0.00%	2.3/sec
Login	100	2681	2569	3364	4605	6524	1242	6976	0.00%	2.1/sec
View Category	3516	822	703	1281	1615	2533	195	8215	0.00%	3.0/sec
View Product	3498	2230	2123	3083	3492	5287	171	9281	0.03%	3.0/sec
Add to Cart	3478	824	773	1185	1299	1830	201	8596	0.03%	3.0/sec
View Cart	3476	3055	2983	3988	4367	5270	104	25422	0.03%	3.0/sec
Place Order	3471	3329	2979	5340	6281	8083	198	20437	0.00%	3.0/sec
Logout	100	1076	745	2147	2391	3482	412	3848	0.00%	3.3/sec
TOTAL	17839	2049	1915	3694	4401	6546	104	25422	0.02%	14.5/sec

Summary:

- **Register, View Category, Add to Cart, and Logout met the response time goal** (95% of requests \leq 4 seconds).
- **Login, View Product, View Cart, Place Order, and Opening Browser were slower**, with some taking over 6 seconds for 95% of requests.
- **Error rates were very low (0.00% to 0.03%)**, showing the system handled requests reliably.
 - Errors occurred only in **View Product** requests.
- **Average response time was 2049 ms**, slightly above the 2-second target.

Load Profile 2 [145 users - 20 minutes]

In this load profile, we simulate the system response when 145 users are doing the all scope functions in a period of 20 minutes.

Number of users	Duration	Average Response Time	95% Line	Error %
145	20 minutes	2258 ms	5054 ms	0.04 %

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Maximum	Error %	Throughput
Open Browser	145	3933	3224	6453	8013	11935	1051	12437	0.00%	2.3/sec
Register	145	836	603	1368	1773	3520	433	3549	0.00%	2.4/sec
Login	145	3019	2816	3933	4663	10875	1398	11095	0.69%	2.1/sec
View Category	4904	926	755	1498	1877	3308	207	12222	0.00%	4.1/sec
View Product	4892	2472	2246	3560	4255	6668	589	26629	0.04%	4.1/sec
Add to Cart	4864	943	815	1375	1840	2889	422	24921	0.02%	4.1/sec
View Cart	4861	3358	3137	4577	5339	8114	382	26821	0.06%	4.1/sec
Place Order	4851	3604	3178	5699	6842	9365	191	27617	0.06%	4.1/sec
Logout	145	1279	997	2091	2414	3481	389	15857	0.00%	3.4/sec
TOTAL	24952	2258	2024	4137	5054	7654	191	27617	0.04%	20.0/sec

Summary:

- **Register, View Category, Add to Cart, and Logout met the response time goal** (95% of requests \leq 4 seconds).
- **Login, View Product, View Cart, Place Order, and Opening Browser were slower**, with 95th percentile times going over 4 seconds — some reaching above 6 seconds.
- **Errors occurred mainly in Login (0.69%), View Product (0.04%), View Cart (0.06%), and Place Order (0.06%),** but overall error rates stayed low.
- **Average response time was 2258 ms**, still slightly over the 2-second target.

Load Profile 3 [150 users - 20 minutes]

In this load profile, we simulate the system response when 150 users are doing the all scope functions in a period of 20 minutes.

Number of users	Duration	Average Response Time	95% Line	Error %
150	20 minutes	2299 ms	5180 ms	0.05 %

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Maximum	Error %	Throughput
Open Browser	150	3490	2457	6164	8695	11645	751	11969	0.00%	2.2/sec
Register	150	664	519	1068	1201	1831	425	2469	0.00%	2.3/sec
Login	150	2635	2485	3552	3842	7097	1271	8071	0.00%	2.0/sec
View Category	5032	936	763	1512	1866	3224	199	19087	0.00%	4.3/sec
View Product	5022	2553	2306	3687	4467	6826	672	32349	0.10%	4.3/sec
Add to Cart	4977	936	813	1364	1807	2717	222	8310	0.02%	4.3/sec
View Cart	4970	3413	3166	4637	5461	8205	1213	27300	0.10%	4.2/sec
Place Order	4962	3713	3258	5802	6914	9622	198	76868	0.04%	4.2/sec
Logout	150	1168	731	2423	3427	4495	380	5610	0.00%	4.5/sec
TOTAL	25563	2299	2062	4222	5180	7713	198	76868	0.05%	20.4/sec

Summary:

- **Register, View Category, Add to Cart, and Logout met the response time goal** (95% of requests \leq 4 seconds).
- **Login, View Product, View Cart, Place Order, and Opening Browser were slower**, with some 95th percentile times going above **5 to 6 seconds**.
- **Errors occurred in View Product (0.10%), View Cart (0.10%), and Place Order (0.04%),** but overall error rate remained low at **0.05%**.
- **Average response time was 2299 ms**, which is slightly above the 2-second target.

Overall:

- **View Product** consistently showed errors across tests, making it the only action with repeated failures.
- **View Product, View Cart, and Place Order** also had the highest response times, often exceeding the 4-second threshold at the 95th percentile.
 - **These actions require performance optimization to meet system response time goals.**
- Other actions like **Register, View Category, Add to Cart, and Logout** performed well, staying within acceptable limits.
- **Overall, average response times were slightly above the 2-second target, and error rates remained low, except for View Product.**