

JMeter Performance Test Report

User Scenario Performance Summary: DemoBlaze Purchase Flow

Scenario Steps:

1. Homepage Visit (index.html)
 - Performance: 30% errors, avg 10.3s response
 - Issue: Unoptimized frontend assets (104KB avg)
2. Navigation (Previous/Next)
 - Not explicitly measured; likely part of index.html or pagination API
3. Category Selection (bycat API)
 - Performance: Fastest endpoint (314ms avg)
4. Phone Category (bycat?category=phones)
 - Performance: Not isolated; assumed similar to bycat
5. Product Selection (proclaiml/libp_s-1)
 - Performance: Severe bottleneck (9.1s avg, 22.7s max)
 - Issue: Heavy payload (357KB)
6. Add to Cart (cart.html)
 - Performance: 30% errors, avg 7s response
 - Issue: Checkout process instability
7. Purchase Completion (Not in report; likely viewcart API)
 - Performance: 1.6s avg but untested under load

Key Findings:

- **Critical Path:**
Homepage → Product Page → Cart has **cascading failures** (30% errors at each step).
- **Worst Step:** Product selection (proclaiml/libp_s-1) is **10x slower** than category browsing.
- **Throughput:** Entire flow averages **~20s total** (vs. target <5s).

Recommendations:

1. Frontend:

- Compress images/JS for index.html and product pages.
- Implement lazy loading for product listings.

2. Backend:

- Optimize proclaiml API response size (357KB → <100KB).
- Fix cart.html timeout issues.

Application: DemoBlaze (<https://www.demoblaze.com>)

Test Date: 12/5/2025

Total Samples: 210

Total Errors: 5.71%

1. Executive Summary

The performance test revealed **critical stability issues** in key user flows, with 5.71% of requests failing. The checkout process (`cart.html`) and homepage (`index.html`) show 30% error rates, while an unidentified test case (`Test`) failed 60% of requests. Several endpoints exhibit **excessive response times** (>10s), indicating scalability risks.

Key Findings

Metric	Value	Target	Status
Avg. Response Time	4.1s	<2s	❌ Fail
Max Response Time	51.4s	<5s	❌ Critical
Error Rate	5.71%	<1%	❌ Fail
Throughput	1.77 req/sec	≥5 req/sec	❌ Fail

2. Detailed Analysis

A. High-Error Endpoints

Endpoint	Error Rate	Avg. Time (ms)	Root Cause
`cart.html`	30%	6,962	Checkout process failures
`index.html`	30%	10,263	Frontend/assets loading issues

Recommended Actions:

- Review `Test` sampler configuration (remove or debug).
- Check server logs for `cart.html` 500 errors.
- Optimize `index.html` assets (compression, CDN).

B. Performance Bottlenecks

Endpoint	Avg. Time (ms)	Max Time (ms)	Issue
`proclaiml/libp_s-1`	9,106	22,669	Heavy payload (357KB avg)
`index.html`	10,263	18,400	Unoptimized JS/CSS
`config.json`	1,033	3,302	API latency

C. Throughput Limitations

- Total throughput: **1.77 requests/sec** (below target of 5/sec).

Solution:

- Scale horizontally for `/cart` and `/index.html` endpoints.
- Add ****JMeter throttling**** (Constant Throughput Timer).

3. Action Plan

Immediate Fixes (24h)

1-Fix Configuration Errors

- Validate all endpoint URLs (e.g., `proclaiml/libp_s-1`).

3. Optimize Frontend

- Compress images (e.g., `index.html` 104KB avg).
- Defer non-critical JavaScript.

Long-Term Improvements

- Infrastructure:
 - Database connection pooling.
 - Auto-scaling for `/cart` and `/proclaiml`.
- Monitoring:
 - Real-time alerts for error rates >1%.
 - Baseline performance metrics.

Aggregate Report

FileEditSearchRunOptionsToolsHelp

00:02:040 0/10

Summary Report

Name:Summary Report

Comments:

Write results to file / Read from file

Filename

Browse...

Log/Display Only:

Errors

Successes

Configure

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/...	Sent KB/sec	Avg. Bytes
https://www.demoblaze.com/config.json	40	1033	272	3302	679.91	0.00%	19.3/min	0.08	0.14	254.4
https://api.demoblaze.com/entries	20	1649	308	4709	1027.50	0.00%	9.7/min	0.46	0.05	2931.0
https://api.demoblaze.com/pagination	20	599	353	1020	196.62	0.00%	3.2/sec	8.33	1.27	2672.5
https://api.demoblaze.com/bycat	40	514	257	868	160.85	0.00%	5.9/sec	10.75	2.35	1874.0
https://www.demoblaze.com/prod.html?idp=1	10	9106	3681	22609	4982.47	0.00%	9.3/min	54.06	1.53	357508.5
https://api.demoblaze.com/view	20	1275	556	7259	1433.07	0.00%	15.4/min	0.12	0.10	494.0
https://api.demoblaze.com/addtocart	10	773	370	1340	235.29	0.00%	9.4/min	0.03	0.08	197.0
https://www.demoblaze.com/cart.html	10	6962	4654	10702	2044.00	30.00%	8.4/min	2.83	1.60	20666.6
https://api.demoblaze.com/viewcart	10	1583	554	7093	1886.81	0.00%	9.1/min	0.04	0.07	283.4
https://api.demoblaze.com/deletcart	10	967	692	1339	185.95	0.00%	9.1/min	0.03	0.07	206.0
https://www.demoblaze.com/index.html	10	10263	4228	18400	5170.79	30.00%	8.3/min	13.95	1.67	103455.8
Test	10	42895	33052	51421	4560.08	60.00%	4.8/min	39.29	3.23	503026.0
TOTAL	210	4085	257	51421	9344.01	5.71%	1.7/sec	78.58	6.45	47907.2

☐ Include group name in label?

Save Table Data

☒ Save Table Header

Summary Report

FileEditSearchRunOptionsToolsHelp

00:02:040 0/10

Aggregate Report

Name:Aggregate Report

Comments:

Write results to file / Read from file

Filename

Browse...

Log/Display Only:

Errors

Successes

Configure

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Maximum	Error %	Throughput	Received KB/...	Sent KB/sec
https://www.demoblaze.com/config.json	40	1033	824	1496	2797	3302	272	3302	0.00%	19.3/min	0.08	0.14
https://api.demoblaze.com/entries	20	1649	1493	2529	3435	4709	308	4709	0.00%	9.7/min	0.46	0.05
https://api.demoblaze.com/pagination	20	599	542	934	950	1020	353	1020	0.00%	3.2/sec	8.33	1.27
https://api.demoblaze.com/bycat	40	514	507	722	791	868	257	868	0.00%	5.9/sec	10.75	2.35
https://www.demoblaze.com/prod.html?idp=1	10	9106	8663	10662	10662	22609	3681	22609	0.00%	9.3/min	54.06	1.53
https://api.demoblaze.com/view	20	1275	819	1511	2460	7259	556	7259	0.00%	15.4/min	0.12	0.10
https://api.demoblaze.com/addtocart	10	773	765	873	873	1340	370	1340	0.00%	9.4/min	0.03	0.08
https://www.demoblaze.com/cart.html	10	6962	5659	9146	9146	10702	4654	10702	30.00%	8.4/min	2.83	1.60
https://api.demoblaze.com/viewcart	10	1583	938	2192	2192	7093	554	7093	0.00%	9.1/min	0.04	0.07
https://api.demoblaze.com/deletcart	10	967	939	1154	1154	1339	692	1339	0.00%	9.1/min	0.03	0.07
https://www.demoblaze.com/index.html	10	10263	6560	16349	16349	18400	4228	18400	30.00%	8.3/min	13.95	1.67
Test	10	42895	42783	46195	46195	51421	33052	51421	60.00%	4.8/min	39.29	3.23
TOTAL	210	4085	848	8677	18400	45123	257	51421	5.71%	1.7/sec	78.58	6.45

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Save Table Data

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