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.demoblase.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.

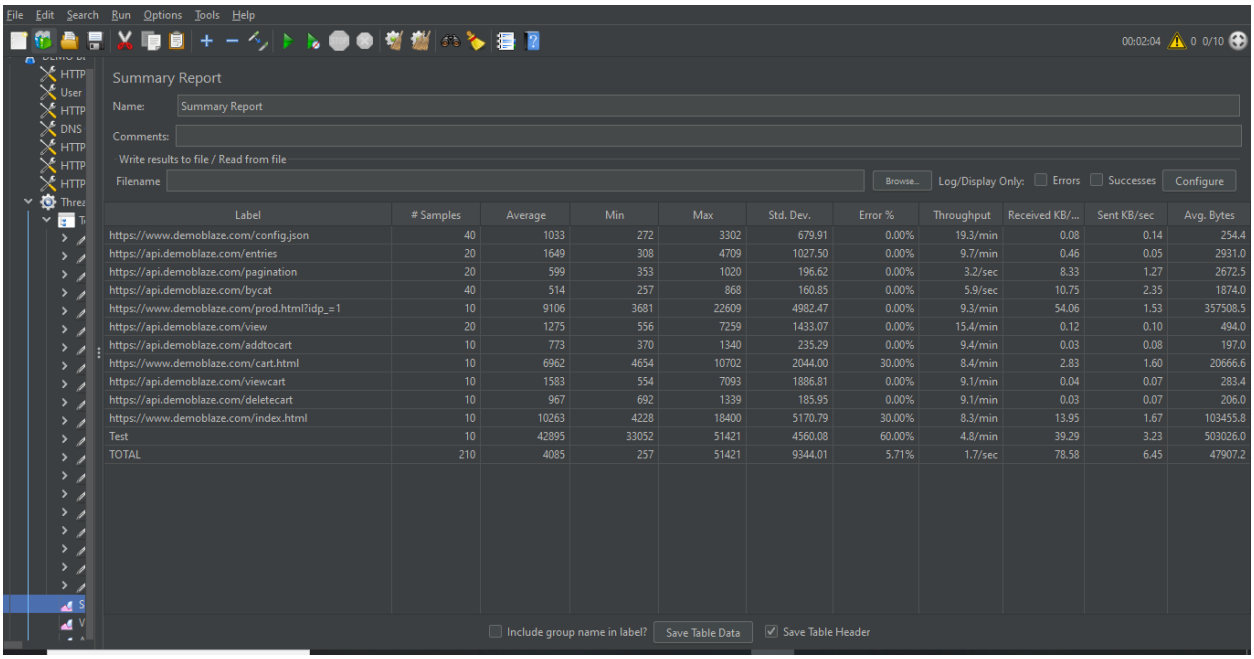
  - Auto-scaling for `/cart` and `/proclaiml`.

- Monitoring:

  - Real-time alerts for error rates >1%.

  - Baseline performance metrics.

Aggregrate Report



Summary Report