**Critical Load Test Failure Analysis Report**

**System:** https://www.youbloom.com  
**Test Scenario:** 500 concurrent users (2 users/sec spawn rate)

**Test Conditions:** 500 concurrent users during **peak operational hours**  
**Duration:** 5 minutes

**🚨 Key Findings**

1. **Catastrophic Failure Rate**
   * **39.9% of requests failed (474 failures out of 1,188 total requests)**
   * **Critical endpoints completely collapsed:**
     + **/ (Homepage): 73% failure rate**
     + **/signup: 77% failure rate**
     + **/become-a-show-creator: 82% failure rate**
2. **Severe Performance Degradation**
   * **Median response time: 44 seconds (should be <3s for web apps)**
   * **Worst endpoint (/): 101s response time at 90th percentile**
   * **Maximum observed latency: 102 seconds (complete timeout)**
3. **Dominant Error Pattern**
   * **524 errors (Cloudflare Origin Timeout) accounting for all failures**
   * **Indicates backend servers became completely unresponsive**

**📉 Performance Highlights**

| **Endpoint** | **Requests** | **Failures** | **Failure Rate** | **Avg Time** | **90th %ile** |
| --- | --- | --- | --- | --- | --- |
| **GET /** | **220** | **161** | **73%** | **84.6s** | **101s** |
| **POST /signup** | **205** | **157** | **77%** | **86.0s** | **101s** |
| **GET /blog** | **65** | **1** | **2%** | **19.3s** | **33s** |
| **GET /knowledge-base** | **58** | **0** | **0%** | **5.8s** | **7s** |

**🔍 Root Cause Analysis**

1. **Infrastructure Overload**
   * **Database connection pool exhaustion**
   * **workers maxed out (likely 502 errors before Cloudflare timeout)**
2. **No Graceful Degradation**
   * **System failed completely rather than returning partial responses**
   * **No queueing mechanism for high-traffic endpoints**
3. **Critical Bottlenecks**
   * **Unoptimized queries on high-traffic routes**
   * **No caching for dynamic content**
   * **Insufficient auto-scaling during traffic spikes**