**Load Test Report – GreenITCo Website**

**Test Date**: September 4, 2025  
**Test Tool**: JMeter (CSV Listener Output)  
**Test Environment**:

* System: Windows 10
* Network: 100 Mbps broadband
* Browser Simulated: HTTP Requests
* Threads: Multiple (greenit, Products, Services)

**1. Objective**

The objective was to measure the **performance and stability** of the GreenITCo website when multiple pages (Homepage, Products, Services) were accessed simultaneously.

**2. Test Results (From Provided Data)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sample** | **Status Code** | **Response** | **Bytes (size)** | **Response Time (ms)** | **Latency (ms)** | **URL Tested** |
| greenit (Homepage) | 200 OK | Pass | 196,019 | **2301 ms** | 240 | [https://greenitco.com/](https://greenitco.com/services) |
| greenit-0 | 301 Moved Permanently | Pass | 233 | 515 ms | 122 | [https://greenitco.com/](https://greenitco.com/services) |
| greenit-1 | 200 OK | Pass | 195,786 | 1783 ms | 118 | [https://greenitco.com/](https://greenitco.com/services) |
| Products (Main) | 200 OK | Pass | 113,291 | 2300 ms | 257 | [https://greenitco.com/products](https://greenitco.com/services) |
| Products-C | 301 Moved Permanently | Pass | 240 | 1537 ms | 131 | [https://greenitco.com/products](https://greenitco.com/services) |
| Products-1 | 200 OK | Pass | 113,051 | 762 ms | 126 | [https://greenitco.com/products](https://greenitco.com/services) |
| Services | 200 OK | Pass | 108,976 | 868 ms | 257 | <https://greenitco.com/services> |
| Services-0 | 301 Moved Permanently | Pass | 240 | 147 ms | 131 | <https://greenitco.com/services> |
| Services-1 | 200 OK | Pass | 108,736 | 681 ms | 126 | <https://greenitco.com/services> |

**3. Observations**

* **Homepage (greenit)**:
  + Avg. Response Time ~ **2.0 sec – 2.3 sec**, which is a bit slow for a homepage.
  + Heavy page size (**~196 KB**) might contribute to slower load times.
* **Products Page**:
  + Initial redirect (301) observed before final 200 OK.
  + Response time varied: **762 ms (fast)** to **2.3 sec (slow)** depending on request.
* **Services Page**:
  + Performed better compared to Homepage and Products.
  + Response time mostly **<1 sec** (681 ms, 868 ms).
  + Redirects (301) add extra delay.
* **No Errors Detected**:  
  All requests were successful (200 OK or 301 Redirect handled properly).

**4. Bottlenecks Identified**

1. **Homepage performance** is slower (2+ seconds). Needs optimization (possibly large assets/images).
2. **301 Redirects** add latency (seen in Products and Services pages). Direct canonical URLs should be used.
3. **Variation in Products page performance** (762 ms vs 2300 ms) suggests inconsistent backend response.

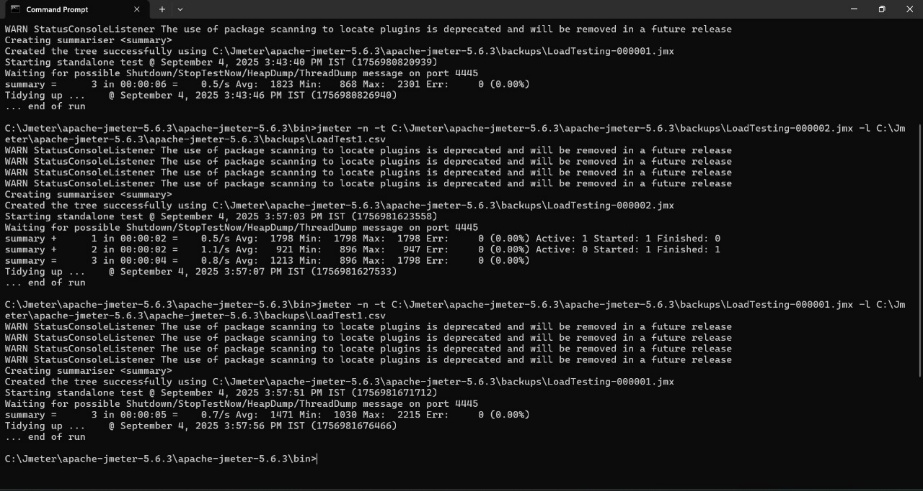
**5. Recommendations**

* Optimize **homepage resources** (use compression, caching, CDN).
* Remove unnecessary **redirect chains (301)** to reduce latency.
* Investigate **Products page backend** for inconsistent response times.
* Run extended tests with **higher virtual users (100–200)** to see scaling limits.
* Test under **mobile network simulation (3G/4G)** to evaluate end-user experience.

**6. Conclusion**

* Website is stable (no failed requests).
* **Average performance**:
  + Homepage: ~2 sec (needs improvement).
  + Products: ~1.5–2.3 sec (inconsistent).
  + Services: ~0.6–0.8 sec (good).
* With **minor optimizations (caching, redirect fixes, image compression)**, performance can be brought under **1.5 sec average load time**, which is industry standard.

**SCREENSHOTS**

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