

# JPetStore 6 Jmeter Aggregation Results Analysis

## Total

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KB/sec	Sent KB/sec
HTTP Request - Welcome Page	161	3891	3997	4768	4940	5101	2419	5146	83.85%	30.86065/sec	53.92	7.41
HTTP Request - Home Page	161	581	564	733	749	754	499	762	0.00%	107.40494/sec	607.19	30.42
HTTP Request - Sign In Page	161	559	565	593	603	613	507	621	0.00%	95.37915/sec	446.16	29.25
HTTP Request - Register Page	161	574	583	621	632	648	504	655	0.00%	78.07953/sec	511.79	24.55
HTTP Request - Cart Page	161	588	597	632	642	650	504	653	0.00%	67.30769/sec	323.85	19.98
HTTP Request - Product Browse - Fish Page	161	596	607	633	643	653	517	661	0.00%	61.99461/sec	288.97	21.19
HTTP Request - Help Page	161	544	542	564	603	612	506	614	0.00%	56.93069/sec	389.23	14.68
TOTAL	1127	1048	586	3433	4411	4898	499	5146	11.98%	110.65292/sec	552.35	32.26

## Overall Analysis:

- Response Time:** The Welcome Page is notably slower, averaging at 3891 ms. Most other pages are around the mid-500s ms range.
- Error Rate:** Only the Welcome Page has issues, with a concerning 83.85% error rate. All other pages function smoothly with 0% errors.
- Throughput:** Home Page handles traffic best with a throughput of 107.40/sec. The Welcome Page lags at 30.86/sec.
- Data Transfer:** The Home Page is the most data-intensive, receiving 607.19 KB/sec and sending out 30.42 KB/sec.

**Conclusion:** In essence, the Welcome Page is problematic in both speed and reliability, whereas the Home Page is optimized for high traffic without compromising performance.

## 1. Thread Group - 1 user

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KB/sec	Sent KB/sec
HTTP Request - Welcome Page	1	5029	5029	5029	5029	5029	5029	5029	100.00%	0.19885/sec	0.35	0.05
HTTP Request - Home Page	1	502	502	502	502	502	502	502	0.00%	1.99203/sec	11.26	0.56
HTTP Request - Sign In Page	1	531	531	531	531	531	531	531	0.00%	1.88324/sec	8.81	0.58
HTTP Request - Register Page	1	588	588	588	588	588	588	588	0.00%	1.70068/sec	11.14	0.53
HTTP Request - Cart Page	1	545	545	545	545	545	545	545	0.00%	1.83486/sec	8.83	0.54
HTTP Request - Product Browse - Fish Page	1	519	519	519	519	519	519	519	0.00%	1.92678/sec	8.98	0.66
HTTP Request - Help Page	1	509	509	509	509	509	509	509	0.00%	1.96464/sec	13.43	0.51
TOTAL	7	1174	531	588	5029	5029	502	5029	14.29%	0.69479/sec	3.47	0.2

## Overall Analysis:

- Response Time:** The Welcome Page took considerably longer at 5029 ms. All other requests completed around 500-600 ms.
- Error Rate:** The Welcome Page faced an issue with a 100% error rate. Every other page worked fine with no errors.
- Throughput:** The Home Page had the highest throughput at 1.99203/sec, while the Welcome Page had the least at 0.19885/sec.
- Data Transfer:** The Home Page and Register Page have similar received data rates, around 11 KB/sec. The Help Page, despite its lower throughput, received the highest data at 13.43 KB/sec.

To summarize, while all other requests performed consistently for a single user, the Welcome Page was both slow and entirely unsuccessful.

## 2. Thread Group - 10 users

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KB/sec	Sent KB/sec
HTTP Request - Welcome Page	10	3953	4034	4572	4572	4955	2664	4955	90.00%	1.91681/sec	3.35	0.46
HTTP Request - Home Page	10	600	570	754	754	759	509	759	0.00%	7.23589/sec	40.91	2.05
HTTP Request - Sign In Page	10	563	572	609	609	611	510	611	0.00%	8.25083/sec	38.6	2.53
HTTP Request - Register Page	10	575	584	615	615	621	518	621	0.00%	8.18331/sec	53.64	2.57
HTTP Request - Cart Page	10	588	597	622	622	627	516	627	0.00%	7.90514/sec	38.04	2.35
HTTP Request - Product Browse - Fish Page	10	604	605	649	649	653	529	653	0.00%	8.4317/sec	39.3	2.88
HTTP Request - Help Page	10	542	545	563	563	570	515	570	0.00%	9.33707/sec	63.84	2.41
TOTAL	70	1061	586	3397	4098	4572	509	4955	12.86%	8.01741/sec	40.02	2.34

### Overall Analysis:

- Response Time:** The Welcome Page, again, stands out with a higher average response time of 3953 ms, with all other requests averaging around 540-600 ms.
- Error Rate:** The Welcome Page is problematic with a 90% error rate. Every other page performed flawlessly with no errors.
- Throughput:** The Help Page led in throughput at 9.33707/sec, followed closely by the Sign In Page at 8.25083/sec and the Product Browse - Fish Page at 8.4317/sec. The Welcome Page lagged with 1.91681/sec, likely due to its high error rate.
- Data Transfer:** The Help Page had the highest received data rate at 63.84 KB/sec. Meanwhile, the Home Page and the Sign In Page both transferred data around 38-40 KB/sec.

In summary, when scaled to 10 users, most requests maintained a consistent performance. However, the Welcome Page continued to be a weak point with slow response times and a high error rate.

## 3. Thread Group - 50 users

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KB/sec	Sent KB/sec
HTTP Request - Welcome Page	50	3887	4049	4652	4844	5146	2419	5146	82.00%	9.58957/sec	16.75	2.3
HTTP Request - Home Page	50	586	592	733	749	762	499	762	0.00%	36.23188/sec	204.83	10.26
HTTP Request - Sign In Page	50	561	565	594	596	621	507	621	0.00%	38.31418/sec	179.22	11.75
HTTP Request - Register Page	50	576	585	619	625	655	504	655	0.00%	35.31073/sec	231.45	11.1
HTTP Request - Cart Page	50	585	586	635	641	650	504	650	0.00%	32.87311/sec	158.17	9.76
HTTP Request - Product Browse - Fish Page	50	596	606	635	643	661	517	661	0.00%	34.9406/sec	162.86	11.94
HTTP Request - Help Page	50	542	539	564	597	612	509	612	0.00%	36.02305/sec	246.29	9.29
TOTAL	350	1048	588	3389	4347	4844	499	5146	11.71%	40/sec	199.67	11.66

### Overall Analysis:

- Response Time:**
  - Welcome Page:** Remains an outlier with a higher average response time of 3887 ms.
  - Other Pages:** A consistent performance with average response times hovering around 540-600 ms.
- Error Rate:**
  - Welcome Page:** Continues to be problematic with an 82% error rate.
  - Other Pages:** No errors, indicating stable performance.
- Throughput:**
  - Home Page and Help Page:** Leads in throughput, both around 36/sec.

- **Welcome Page:** A lag at 9.58957/sec, likely hindered by its high error rate.
- **Other Pages:** Throughput rates lie between 32-39/sec.

#### 4. Data Transfer:

- **Home Page:** Tops the list with a received data rate of 204.83 KB/sec.
- **Help Page:** Close behind with 246.29 KB/sec.
- **Sign In Page:** 179.22 KB/sec.
- **Other Pages:** Data rates hover around 158-232 KB/sec.

To summarise, with 50 users, while most of the requests showed consistent performance, the Welcome Page persisted as the primary concern with both slow response times and a significantly high error rate.

#### 4. Thread Group - 100 users

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KB/sec	Sent KB/sec
HTTP Request - Welcome Page	100	3875	3917	4768	4939	5101	2432	5140	84.00%	19.1681/sec	33.49	4.6
HTTP Request - Home Page	100	577	554	689	742	749	503	751	0.00%	72.09805/sec	407.59	20.42
HTTP Request - Sign In Page	100	558	561	593	602	613	507	616	0.00%	76.27765/sec	356.8	23.39
HTTP Request - Register Page	100	572	582	621	632	648	508	651	0.00%	70.42254/sec	461.6	22.14
HTTP Request - Cart Page	100	591	600	632	642	650	509	653	0.00%	65.83278/sec	316.76	19.54
HTTP Request - Product Browse - Fish Page	100	596	607	630	636	645	517	645	0.00%	69.97901/sec	326.18	23.92
HTTP Request - Help Page	100	546	543	562	603	613	506	614	0.00%	71.73601/sec	490.45	18.49
TOTAL	700	1045	586	3433	4337	4895	503	5140	12.00%	79.99086/sec	399.3	23.32

#### Overall Analysis:

##### 1. Response Time:

- **Welcome Page:** High average response time at 3875 ms.
- **Other Requests:** Averaging around 546-596 ms, with the Product Browse - Fish Page having an average of 596 ms and the Help Page at 546 ms.

##### 2. Error Rate:

- **Welcome Page:** High error rate at 84%.
- **Other Pages:** Performed flawlessly with no errors.

##### 3. Throughput:

- **Help Page:** Leading with 71.73601/sec.
- **Sign In Page:** Closely following with 76.27765/sec.
- **Product Browse - Fish Page:** At 69.97901/sec.
- **Welcome Page:** Significantly behind with 19.1681/sec, likely influenced by its high error rate.

##### 4. Data Transfer:

- **Help Page:** Highest received data rate at 490.45 KB/sec.
- **Home Page:** At 407.59 KB/sec.
- **Sign In Page:** Transferred data at a rate of 356.8 KB/sec.

In Conclusion, with 100 users, the Welcome Page remains a concern in terms of both response time and error rate. The rest of the system is performing quite well, especially the Help and Sign In pages. Efforts should be concentrated on optimizing the Welcome Page for better overall performance.