

Login

Method:POST

Path: /energy/api/ Login

1.Number of Threads (users): 10 Ramp-up period (seconds): 5 Loop Count: 1

-Summary Report:

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/s...	Sent KB/sec	Avg. Bytes
Login	10	116	102	226	36.54	0.00%	2.2/sec	1.15	0.53	540.0

-Results in Table (first 10 users):

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(...)
1	16:05:10.246	Thread Grou...	Login	226		540	249	226	37
2	16:05:10.742	Thread Grou...	Login	103		540	249	103	8
3	16:05:11.247	Thread Grou...	Login	105		540	249	105	7
4	16:05:11.748	Thread Grou...	Login	104		540	249	103	8
5	16:05:12.249	Thread Grou...	Login	104		540	249	104	7
6	16:05:12.743	Thread Grou...	Login	111		540	249	111	7
7	16:05:13.243	Thread Grou...	Login	102		540	249	102	7
8	16:05:13.742	Thread Grou...	Login	103		540	249	103	8
9	16:05:14.248	Thread Grou...	Login	103		540	249	103	7
10	16:05:14.746	Thread Grou...	Login	105		540	249	105	7

-Graph Results:

Για 10 χρήστες τα requests δεν ήταν αρκετά για να δούμε αντιπροσωπευτικά δεδομένα στο γράφημα

2.Number of Threads (users): 75 Ramp-up period (seconds): 5 Loop Count: 1

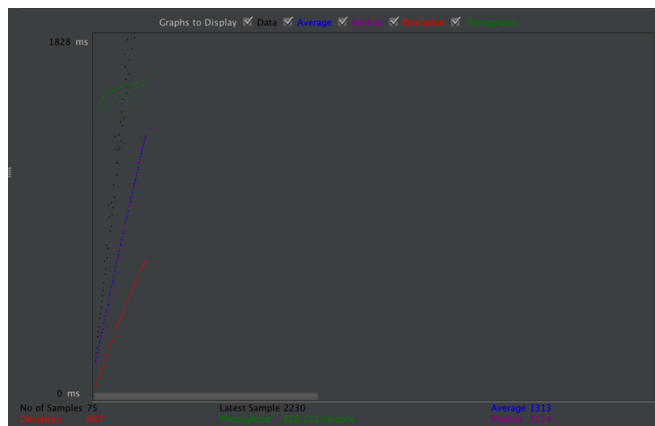
-Summary Reports:

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/s...	Sent KB/sec	Avg. Bytes
Login	75	1313	129	2445	667.25	0.00%	10.4/sec	5.50	2.54	540.0

-Results in table (10 first and 10 last users):

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(...)
1	16:06:30.827	Thread Grou...	Login	129		540	249	129	26
2	16:06:30.897	Thread Grou...	Login	157		540	249	157	63
3	16:06:30.962	Thread Grou...	Login	192		540	249	192	97
4	16:06:31.030	Thread Grou...	Login	221		540	249	221	31
5	16:06:31.092	Thread Grou...	Login	278		540	249	278	163
6	16:06:31.160	Thread Grou...	Login	303		540	249	303	98
7	16:06:31.228	Thread Grou...	Login	327		540	249	327	32
8	16:06:31.294	Thread Grou...	Login	371		540	249	371	171
9	16:06:31.364	Thread Grou...	Login	394		540	249	394	102
10	16:06:31.430	Thread Grou...	Login	425		540	249	425	133
65	16:06:35.111	Thread Grou...	Login	2445		540	249	2445	688
66	16:06:35.178	Thread Grou...	Login	2378		540	249	2378	623
67	16:06:35.249	Thread Grou...	Login	2308		540	249	2308	554
68	16:06:35.315	Thread Grou...	Login	2243		540	249	2243	490
69	16:06:35.379	Thread Grou...	Login	2179		540	249	2179	428
70	16:06:35.445	Thread Grou...	Login	2114		540	249	2114	363
71	16:06:35.515	Thread Grou...	Login	2225		540	249	2225	753
72	16:06:35.583	Thread Grou...	Login	2158		540	249	2158	686
73	16:06:35.648	Thread Grou...	Login	2365		540	249	2365	811
74	16:06:35.715	Thread Grou...	Login	2298		540	249	2298	744
75	16:06:35.784	Thread Grou...	Login	2230		540	249	2230	678

-Graph Results:



3.Number of Threads (users): 150 Ramp-up period (seconds): 5 Loop Count: 1

-Summary Reports:

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/s...	Sent KB/sec	Avg. Bytes
Login	150	6596	307	11494	3625.18	0.00%	10.4/sec	5.47	2.52	540.0

-Results in tables (for 10 first and 10 last users):

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(...)
1	16:13:23.166	Thread Grou...	Login	345	✓	540	249	345	30
2	16:13:23.205	Thread Grou...	Login	307	✓	540	249	307	82
3	16:13:23.264	Thread Grou...	Login	449	✓	540	249	449	26
4	16:13:23.230	Thread Grou...	Login	484	✓	540	249	484	58
5	16:13:23.297	Thread Grou...	Login	741	✓	540	249	741	114
6	16:13:23.329	Thread Grou...	Login	710	✓	540	249	710	382
7	16:13:23.364	Thread Grou...	Login	676	✓	540	249	676	348
8	16:13:23.433	Thread Grou...	Login	908	✓	540	249	908	292
9	16:13:23.465	Thread Grou...	Login	877	✓	540	249	877	261
10	16:13:23.399	Thread Grou...	Login	944	✓	540	249	944	315

140	16:13:27.754	Thread Grou...	Login	9874	✓	540	249	9874	1308
141	16:13:27.785	Thread Grou...	Login	9843	✓	540	249	9843	1278
142	16:13:27.820	Thread Grou...	Login	9809	✓	540	249	9809	1244
143	16:13:27.855	Thread Grou...	Login	9775	✓	540	249	9775	1212
144	16:13:27.888	Thread Grou...	Login	9742	✓	540	249	9742	1179
145	16:13:27.921	Thread Grou...	Login	9710	✓	540	249	9710	1149
146	16:13:27.951	Thread Grou...	Login	9680	✓	540	249	9680	1121
147	16:13:27.986	Thread Grou...	Login	9646	✓	540	249	9646	1086
148	16:13:28.019	Thread Grou...	Login	9613	✓	540	249	9613	1055
149	16:13:28.049	Thread Grou...	Login	9584	✓	540	249	9584	1026
150	16:13:28.082	Thread Grou...	Login	9552	✓	540	249	9552	996

-Graph Results:



Για την ανάλυση των επιδόσεων του REST API χρησιμοποιήθηκε το εργαλείο Jmeter

ΑΝΑΛΥΣΗ ΔΕΙΓΜΑΤΩΝ:

****Παρατηρήσαμε ότι ο μέγιστος αριθμός ταυτόχρονων requests που μπορεί να εξυπηρετήσει το REST API μας χωρίς κανένα error είναι περίπου 150.**

Ανάλυση Graph:

- **Data** - plot the actual data values
- **Average** - plot the Average
- **Median** - plot the Median (midway value)
- **Deviation** - plot the Standard Deviation (a measure of the variation)
- **Throughput** - plot the number of samples per unit of time

Ανάλυση Summary Report:

- **Label** - The label of the sample. If "**Include group name in label?**" is selected, then the name of the thread group is added as a prefix. This allows identical labels from different thread groups to be collated separately if required.
- **# Samples** - The number of samples with the same label
- **Average** - The average elapsed time of a set of results
- **Min** - The lowest elapsed time for the samples with the same label
- **Max** - The longest elapsed time for the samples with the same label
- **Std. Dev.** - the Standard Deviation of the sample elapsed time
- **Error %** - Percent of requests with errors
- **Throughput** - the Throughput is measured in requests per second/minute/hour. The time unit is chosen so that the displayed rate is at least **1.0**. When the throughput is saved to a CSV file, it is expressed in requests/second, i.e. 30.0 requests/minute is saved as **0.5**.
- **Received KB/sec** - The throughput measured in Kilobytes per second
- **Sent KB/sec** - The throughput measured in Kilobytes per second
- **Avg. Bytes** - average size of the sample response in bytes.

ΠΗΓΕΣ: <https://jmeter.apache.org/>