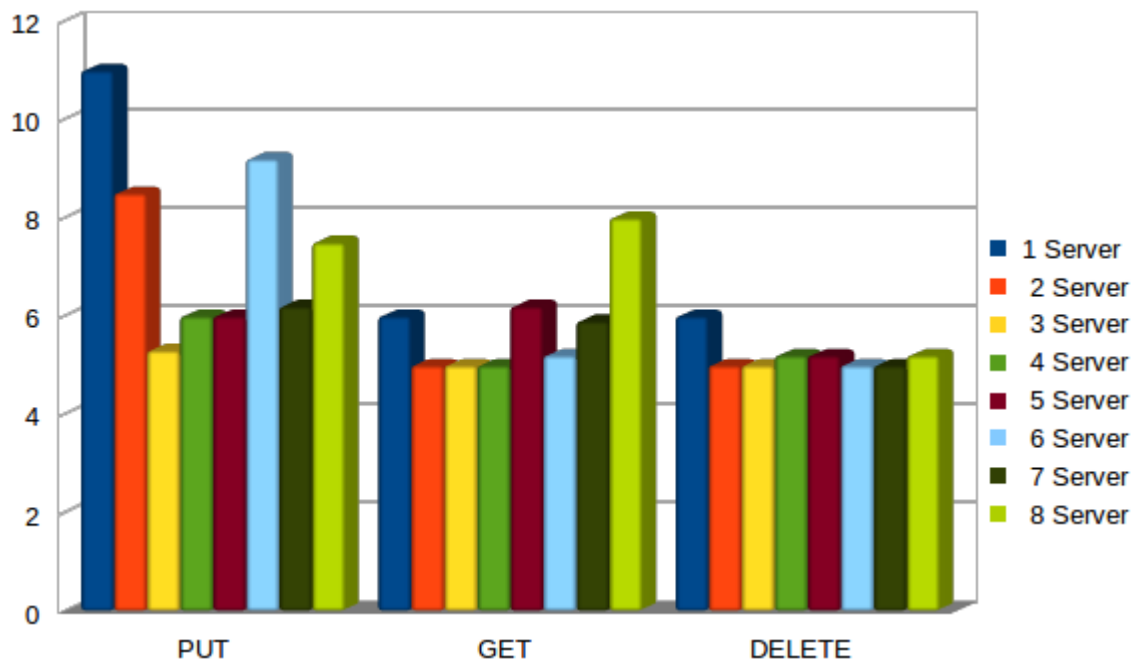# Evaluation Report:

Behavior of the system is evaluated by measuring response time by making 100K sequential requests. The response times is calculated when multiple clients are concurrently making requests. Based on all calculated measurement following graph is ploted.

Following table shows response time of PUT, GET and DELETE request in Seconds. There requests are made by 1 Server, 2 servers concurrently, 3 Servers concurrently and so on.

	1 Server	2 Servers	3 Servers	4 Servers	5 Servers	6 Servers	7 Servers	8 Servers
PUT	11	8.5	5.3	6	6	9.2	6.2	7.5
GET	6	5	5	5	6.2	5.2	5.9	8
DELETE	6	5	5	5.2	5.2	5	5	5.2

Evaluation Measurement Details:

1.   Requested By : 1 Server
           Total Connected Server : 8
           Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required =>	Time Required =>	Time Required =>
Server_1 : 11 Sec	Server_1 : 6 Sec	Server_1 : 6 Sec

```
sachin@sachin-HP-Pavilion-15-Notebook-PC: ~/Docume
1.GET
2.PUT
3.DELETE
Enter choice : 2
Enter key : sachin
Enter Value : ambalkar
 Result : Success
Started at:  10852582276083 Ended at: 10864231004016
Time required (NanoSecond) : 11648885608
Time required (Second) : 11.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : sachin
 Result : ambalkar
Started at:  10876996174579 Ended at: 10883871106585
Time required (NanoSecond) : 6875064195
Time required (Second) : 6.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : sachin
 Result : Deleted
Started at:  10888923086587 Ended at: 10895136767037
Time required (NanoSecond) : 6213773395
Time required (Second) : 6.0
```

2. Requested By : **2 Servers**
Total Connected Server : 8
Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required (Sec) =>	Time Required(Sec) =>	Time Required =>
Server_1 : 9	Server_1 : 5	Server_1 : 5
Server_2 : 8	Server_2 : 5	Server_2 : 5
Avg : 8.5	Avg : 5	Avg : 5

3.   Requested By : **3 Servers**
         Total Connected Server : 8
         Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required (Sec) =>	Time Required(Sec) =>	Time Required =>
Server_1 : 5	Server_1 : 5	Server_1 : 5
Server_2 : 5	Server_2 : 5	Server_2 : 5
Server_3 : 6	Server_3 : 5	Server_3 : 5
Avg : 5.3	Avg : 5	Avg : 5

4.   Requested By : **4 Servers**
        Total Connected Server : 8
        Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required (Sec) =>	Time Required(Sec) =>	Time Required =>
Server_1 : 6	Server_1 : 5	Server_1 : 6
Server_2 : 6	Server_2 : 5	Server_2 : 5
Server_3 : 6	Server_3 : 5	Server_3 : 5
Server_4 : 6	Server_4 : 5	Server_4 : 5
Avg : 6	Avg : 5	Avg : 5.2

Screen-shot PUT & GET =>

Delete:

5.   Requested By : **5 Servers**
          Total Connected Server : 8
          Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required (Sec) =>	Time Required(Sec) =>	Time Required =>
Server_1 : 6	Server_1 : 6	Server_1 : 5
Server_2 : 6	Server_2 : 7	Server_2 : 5
Server_3 : 6	Server_3 : 6	Server_3 : 5
Server_4 : 6	Server_4 : 6	Server_4 : 6
Server_5 : 6	Server_5 : 6	Server_5 : 5
Avg : 6	Avg : 6.2	Avg : 5.2

Screen-shot for PUT & GET=>

Delete =>

6   Requested By : **6 Servers**
Total Connected Server : 8
Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required (Sec) =>	Time Required(Sec) =>	Time Required =>
Server_1 : 10	Server_1 : 6	Server_1 : 5
Server_2 : 10	Server_2 : 5	Server_2 : 5
Server_3 : 10	Server_3 : 6	Server_3 : 6
Server_4 : 9	Server_4 : 4	Server_4 : 5
Server_5 : 8	Server_5 : 5	Server_5 : 5
Server_6 : 8	Server_6 : 6	Server_6 : 4
Avg : 9.2	Avg : 5.2	Avg : 5

PUT =>

Get=>

Delete=>

7. Requested By : **6 Servers**
   Total Connected Server : 8
   Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required (Sec) =>	Time Required(Sec) =>	Time Required =>
Server_1 : 7	Server_1 : 6	Server_1 : 5
Server_2 : 6	Server_2 : 6	Server_2 : 5
Server_3 : 6	Server_3 : 6	Server_3 : 5
Server_4 : 7	Server_4 : 5	Server_4 : 5
Server_5 : 6	Server_5 : 6	Server_5 : 5
Server_6 : 6	Server_6 : 5	Server_6 : 5
Server_7 : 6	Server_7 : 6	Server_7 : 5
Avg : 6.2	Avg : 5.9	Avg : 5

PUT=>

GET:

Delete:

8.   Requested By : **8 Servers**
         Total Server   : 8
         Request =>

Type : PUT	Type : GET	Type : DELETE
Count : 100000	Count : 100000	Count : 100000
Time Required (Sec) =>	Time Required(Sec) =>	Time Required =>
Server_1 : 7	Server_1 : 7	Server_1 : 5
Server_2 : 8	Server_2 : 7	Server_2 : 5
Server_3 : 8	Server_3 : 8	Server_3 : 6
Server_4 : 8	Server_4 : 9	Server_4 : 5
Server_5 : 7	Server_5 : 7	Server_5 : 5
Server_6 : 7	Server_6 : 8	Server_6 : 5
Server_7 : 8	Server_7 : 8	Server_7 : 6
Server_8 : 7	Server_8 : 9	Server_8 : 5
Avg : 7.5	Avg : 8	Avg : 5.2

PUT=>

GET=>

Ubuntu Desktop   En   (78%)   6:06 PM

sachin@sachin-HP-Pavilion-15-No
2174
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello1
 Result : world1
Started at: 2029909033053 Ended at
: 2037609423567
Time required (NanoSecond) : 770060
6780
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-Not
069
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello2
 Result : wolrd2
Started at: 2030360802653 Ended at:
2038043499429
Time required (NanoSecond) : 7682881
530
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-Not
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello3
 Result : world3
Started at: 2030950720417 Ended at:
2039077903655
Time required (NanoSecond) : 8127270
182
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-No
Time required (NanoSecond) : 850770
9400
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello4
 Result : world4
Started at: 2031622949763 Ended at
: 2040974325740
Time required (NanoSecond) : 935156
0939
Time required (Second) : 9.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-Not
 1900111775723
Time required (NanoSecond) : 7547937
236
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello5
 Result : world5
Started at: 2034616538394 Ended at:
2042531578794
Time required (NanoSecond) : 7915116
003
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-Not
1899351176765
Time required (NanoSecond) : 7387198
697
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello6
 Result : world6
Started at: 2033621987801 Ended at:
2041867042247
Time required (NanoSecond) : 8245115
971
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-
Started at: 1891419759420 Ended
at: 1899704333396
Time required (NanoSecond) : 8284
659098
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello7
 Result : world7
Started at: 2033014069423 Ended
at: 2041544326937
Time required (NanoSecond) : 8530
345195
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-No
Time required (NanoSecond) : 776168
9892
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice : 1
Enter key : hello8
 Result : world8
Started at: 2032266749661 Ended at
: 2041383439368
Time required (NanoSecond) : 911674
9905
Time required (Second) : 9.0
1.GET
2.PUT
3.DELETE
Enter choice :

Delete=>

Ubuntu Desktop   En   (76%)   6:08 PM

sachin@sachin-HP-Pavilion-15-No
6780
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello1
 Result : Deleted
Started at: 2320749374560 Ended at
: 2326228770490
Time required (NanoSecond) : 547948
5333
Time required (Second) : 5.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-No
530
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello2
 Result : Deleted
Started at: 2316420130423 Ended at:
2322160516973
Time required (NanoSecond) : 5740634
944
Time required (Second) : 5.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-Not
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello3
 Result : Deleted
Started at: 2317627229510 Ended at:
2324283587869
Time required (NanoSecond) : 6656484
090
Time required (Second) : 6.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-No
Time required (NanoSecond) : 935156
0939
Time required (Second) : 9.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello4
 Result : Deleted
Started at: 2318290448186 Ended at
: 2324218072877
Time required (NanoSecond) : 592769
8445
Time required (Second) : 5.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-Not
2042531578794
Time required (NanoSecond) : 7915116
003
Time required (Second) : 7.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello5
 Result : Deleted
Started at: 2320112553035 Ended at:
2325857156543
Time required (NanoSecond) : 5744691
856
Time required (Second) : 5.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-Not
2041867042247
Time required (NanoSecond) : 8245115
971
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello6
 Result : Deleted
Started at: 2319593786595 Ended at:
2325040823608
Time required (NanoSecond) : 5447096
278
Time required (Second) : 5.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-
Started at: 2033014069423 Ended
at: 2041544326937
Time required (NanoSecond) : 8530
345195
Time required (Second) : 8.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello7
 Result : Deleted
Started at: 2319012388600 Ended
at: 2325109776164
Time required (NanoSecond) : 6097
427718
Time required (Second) : 6.0
1.GET
2.PUT
3.DELETE
Enter choice :

sachin@sachin-HP-Pavilion-15-No
Time required (NanoSecond) : 911674
9905
Time required (Second) : 9.0
1.GET
2.PUT
3.DELETE
Enter choice : 3
Enter key to delete : hello8
 Result : Deleted
Started at: 2315372819289 Ended at
: 2321112199721
Time required (NanoSecond) : 573976
0752
Time required (Second) : 5.0
1.GET
2.PUT
3.DELETE
Enter choice :