

DISTRIBUTED OPERATING SYSTEMS

PROJECT 3

- Team members

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- What is working.

In this project we implemented tapestry protocol using the actor facility `elixir`, implemented the network join and routing as described in the Tapestry paper. We were able to route the requests over a dynamically built tapestry network. Here, we are taking `numNodes` and `numRequests` as an input.

Provide the input in following form :

```
mix run project3.exs numNodes numRequests
```

The output table can be seen in the screenshot below :

No of nodes	Number of requests	Max hop
10	5	2
50	5	3
100	5	4
500	5	4
1000	5	5
2000	5	5
2500	5	5
5000	5	6
10000	5	6

No of nodes	Number of requests	Max hop
10	10	2
50	10	3
100	10	4
500	10	4
1000	10	5
2000	10	5
2500	10	5
5000	10	6
10000	10	6

No of nodes	Number of requests	Max hop
10	1	2
50	1	3
100	1	3
500	1	4
1000	1	4
2000	1	5
2500	1	5
5000	1	5
10000	1	6

- The largest network we were able to deal with had the number of nodes as 12500 and number of requests as 5 where the max hop count was found to be 6 which can be seen in the screenshot below.

```
C:\Users\kaust\OneDrive\Desktop\project3>mix run project3.exe 12500 5
number of nodes: 12500
number of requests: 5
Max hop count = 6
** (EXIT from #PID<0.91.0>) killed
```