

LAB 2 Coding on data center design

In my program, it is possible to compute numbers of needed cables, TORs and Spine switches for a given server's number. The computation runs for 2 layer Data Center with a particular Ratio. The Ratio is used to calculate the constraints in Top of the rack server, then connect TORs to a suitable amount of Spine Switches.

Dialog box:

```
Give me number of Ratio for server(?:1):  
4  
Give me number of servers:  
44444  
Give me number of PORTS for switches:  
44  
Would you like calculation for range [OR] only for your NUMBERS?[1 or 2?]
```

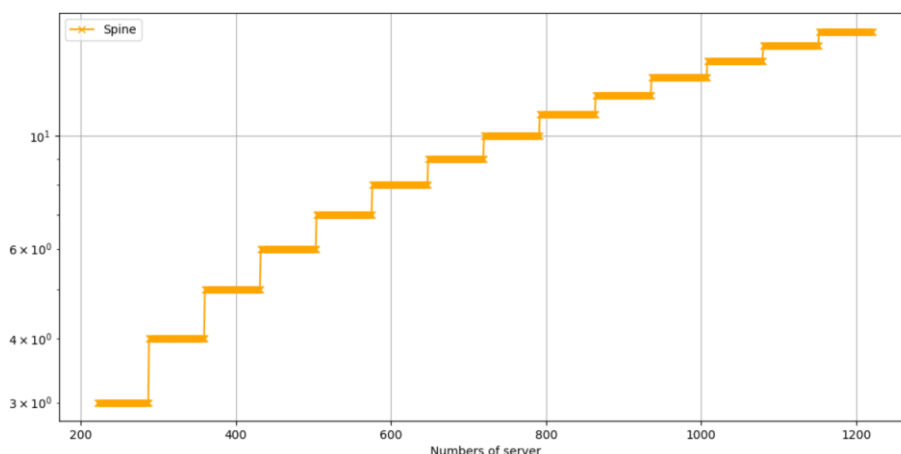
User's preferation

User's preferation:

❖ 1

```
Give me letter(1-logarytmic, n ->normal):  
n
```

Choice between 1 (variety of huge numbers to simulate) or n (1000 samples in natural order)



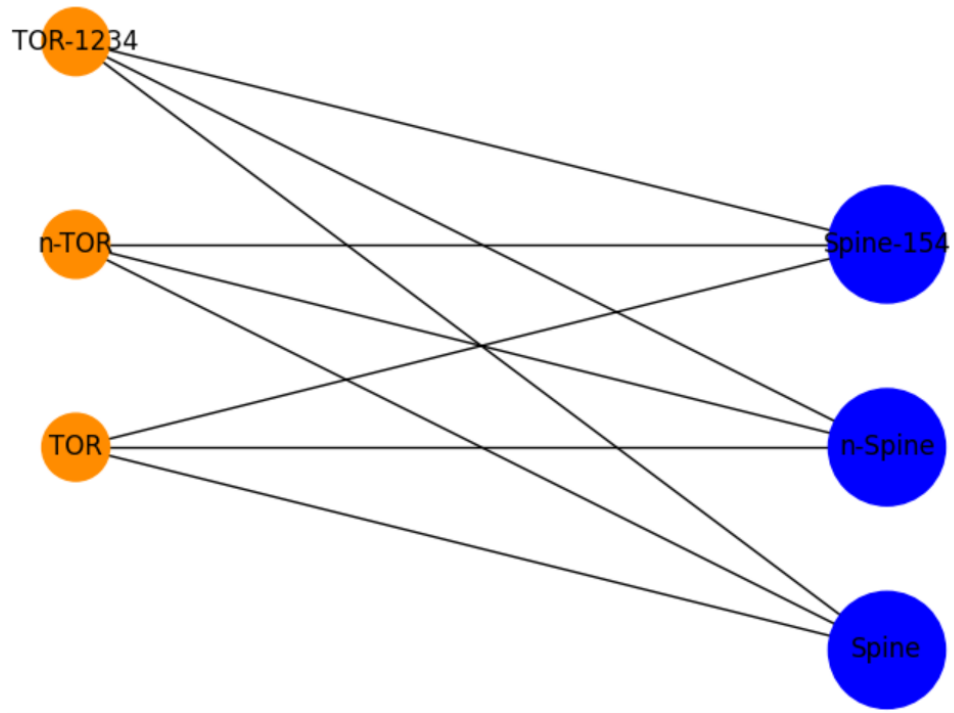
*y - Spine switches

If you want to plot cables or TORs you ought to uncomment a line in the plot function.

❖ 2

```
..
Would you like calculaiton for range |OR| only for yor NUMBERS?[1 or 2?]
2
Server number: 44444 Spine switches: 154 , TOR: 1234 , cables: 54316
User's prefeeration
Result
```

*Cables includes connection of servers to TOR



Illustative graph shows that every Tor links to each spine's switch.

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