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How to run the program

```
dotnet fsi Project2.fsx <number-of-nodes> <topology> <protocol>
```

Example,
dotnet fsi Project2.fsx 1000 3d gossip
Options for topologies: line, full, 3d, imperfect-3d
Options for protocols: gossip, push-sum

What is working

- 1. All topologies line, full, 3d and imperfect-3d are working with both gossip and push-sum protocol.
- 2. All nodes in all topologies will always converge .
- 3. In case of Gossip , Convergence means that every actor in the topology listens to the rumour atleast 10 times.
- 4. For gossip, if the rumour stops spreading, then a helper actor will always wake up one of the other unconverged nodes and pass on the rumour to that node.

Largest network

Gossip

Network	Line	Full	3D	Imperfect 3D
Nodes	16000	4000	32000	32000

Push-sum

Network	Line	Full	3D	Imperfect 3D
Nodes	16000	4000	32000	32000

My neighbor generation function is too slow for Full topology because there are N-1 neighbors for each node.