

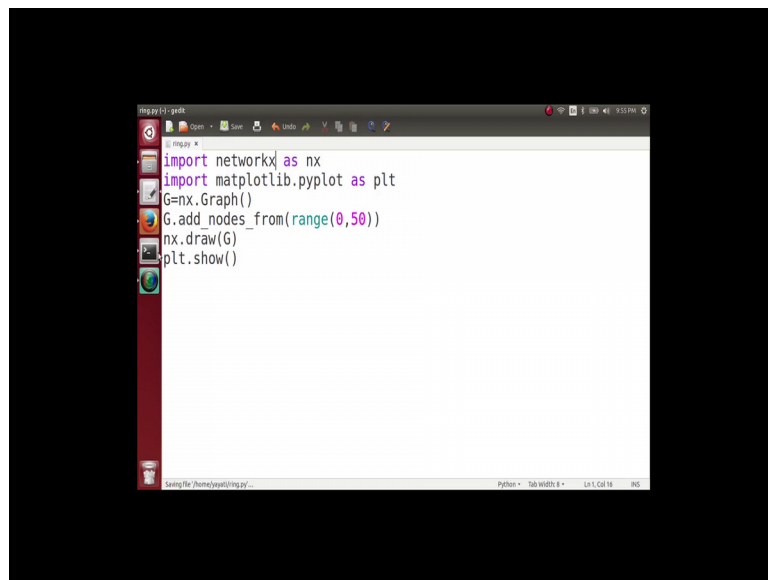
Social Networks
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How to go Viral on Web
Lecture - 151
Base Code

So, now we are starting of with the programming screen guard for creating a small world network. What we are going to do is as we discussed we are going to create a one dimensional small world network in the form of a ring. Here every node is connected to 2 nodes on the left side and 2 nodes on the right side and there are certain weak ties in between. And then we will look and how does the diameter of this network reduces as we add more and more numbers of weak ties more and more numbers of long range contacts.

So, first of all what do we need is we need a network having 50 nodes.

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A screenshot of a Python IDE window titled 'ipython - qtconsole'. The code in the editor is:

```
import networkx as nx
import matplotlib.pyplot as plt
G=nx.Graph()
G.add_nodes_from(range(0,50))
nx.draw(G)
plt.show()
```

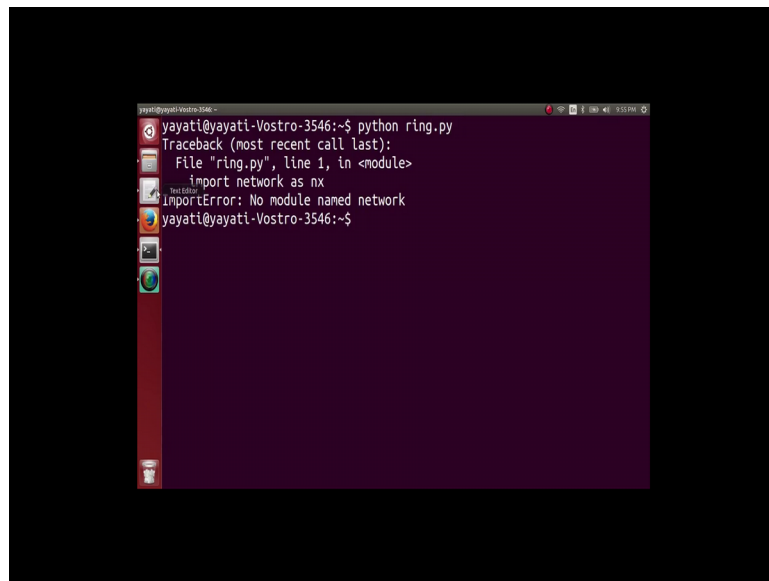
The IDE interface includes a toolbar with icons for file operations, a search bar, and a status bar at the bottom showing 'Python - Tab Width: 8 - Ln: 5, Col: 16 - 80'.

So, we know the code for that is very simple import network excess as nx after importing the module. So, will like to visualize this graph so, we import matplotlib dot pyplot as plt and then G equals to nx dot graph for creating a graph.

And then what we want to do is we want to add 50 nodes to this network. So, what do we do G dot add nodes from and inside this we pass a list having numbers from 0 to 49. So, we have added the nodes, and then we can simply visualize this graph and nx dot draw G and then plt dot show.

So, I am going to name this file as ring dot py and let us execute and see.

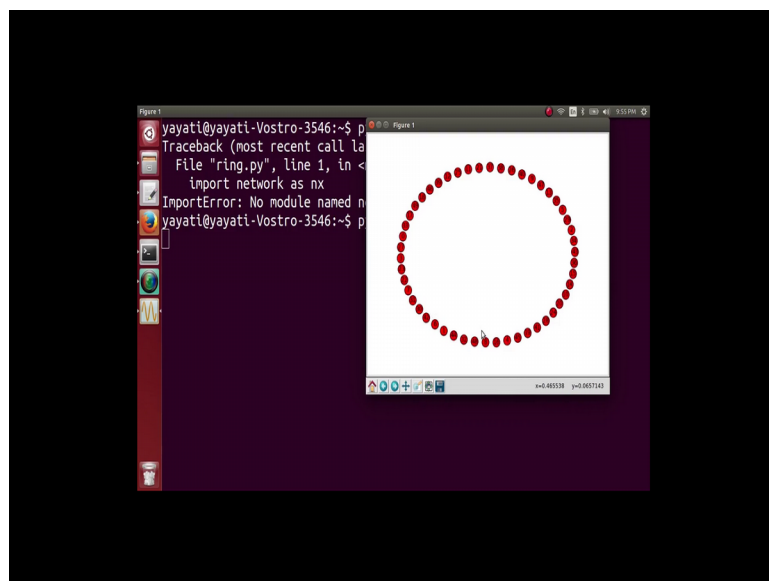
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```
yayati@yayati-Vostro-3546:~$ python ring.py
Traceback (most recent call last):
  File "ring.py", line 1, in <module>
    import network as nx
ImportError: No module named network
yayati@yayati-Vostro-3546:~$
```

So, python ring dot py ok. So, import network x as nx.

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And then you can see that here, we have got a simple graph having 50 nodes label from 0 to I think that the maximum should be 49; labeled from 0 to 49 here. And you can see that the nodes here are noting a particular order. So, this is a graph which we are getting.