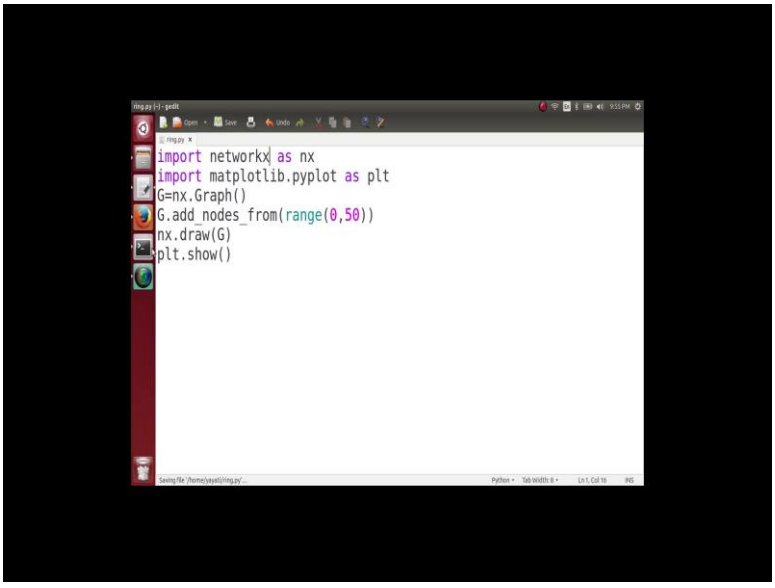
Social Networks
Prof. S. R. S. Iyengar
Department of Computer Science
Indian Institute of Technology, Ropar

How to go Viral on Web
Lecture - 151
Base Code

So, now we are staring 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.

(Refer Slide Time: 00:43)

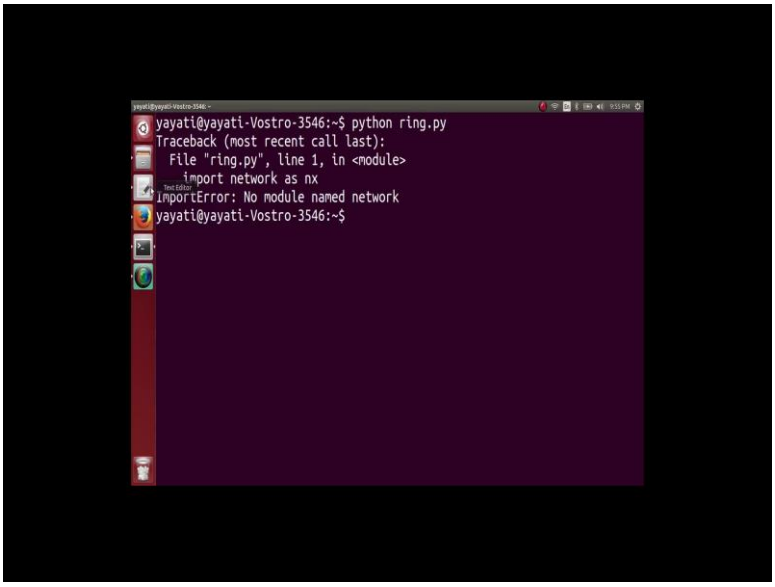


So, we know the code for that is very simple import network excess as nx after importing the module. So, will like to visualize this graph so, we import maplotlib.pyplot as plt and then G = nx.graph for creating a graph.

And then what we want to do is we want to add 50 nodes to this network. So, what do we do G.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.draw(G) and then plt. show.

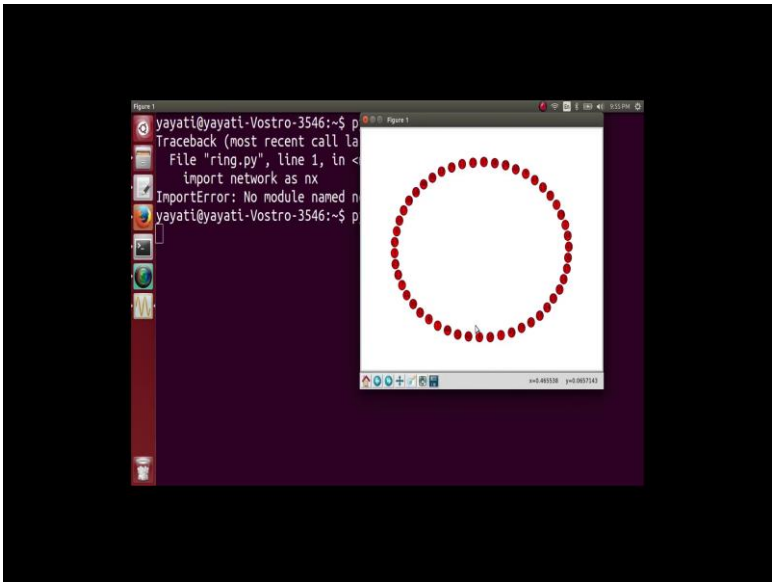
So, I am going to name this file as ring. py and let us execute and see.

(Refer Slide Time: 01:41)



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

(Refer Slide Time: 01:57)



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.