

PAGE RANK: HOW DOES GOOGLE WORK? 16

Hello all welcome again to yet another programming screen cast on page rank as you all saw in the previous videos we performed an activity in this particular activity people were asked to choose their leader so now we have their data with us we have the data in the form of edges as you all know we need a directed graph in order to calculate page rank so will be creating a directed graph out of this data. First of all let me explain this data, we have this data in the form of edges. If we have one two that is there is an edge from one to two, if we have one space three that means we have an edge form one to three in the same way we have the data in the form of edge list. You can see the rest of the edges so now our task is to make a graph out of this edges so how can you make a graph out of this using python where this is also very much possible and very very very easy in python so let me show you how can you create a graph out of this data. As an always you need to import networkx first so i will just import networkx as nx then you also need to import matplotlib library so i will just write matplotlib dot pyplot as plt after that you need to write just one function in order to read the data, yes in order to read the data you just need to write a function of networkx what that function is? I will just write G is equal to nx dot read underscore edge list and in this particular bracket you need to pass the path of your data file so i have stored the data in the txt file in a dot txt file so i will just write the path of this file i will write it's in users simran setia list of my file name is page underscore rank dot txt apart from the path that you need to supply here you also need to write r here apart from the path that you need to supply you also need to supply two more parameters here first is create underscore using it describes whether you directed graph simple graph so since we need the directed graph i will write nx dot Di graph and after this i need to node type node type is int here so i will just write node type is equal to int since we have anonymised the nodes here we had the data in the form of the names of the different people but we have anonimised the data now we have the detain the form of numbers, in the form of numbers we have one two three till around twenty five so we have read the graph from the txt file now we just need to draw this graph how can you draw the graph simple nx dot draw capital G and you also need to pass with labels is equal to true since we need to show the labels i just write with labels is equal to true and then we just write plt dot show so i think this is done let me run this program. So as you can see we have a graph here the graph that has been read from the txt file ok so this is fairly simple in python you can easily read the data and draw a graph out of that data so the functions that you need to use here is G is equal read underscore edge list what you need to write here is you have to initialised graph variable G is equal to nx dot read edge list first of all you need to supply the path of your particular txt file after that you need to supply whether you want to draw a directed graph or simple graph then you also need to supply the node type here and we had nodes in the form of one two three so we supply node type is equal to int here so when you run it you can easily see your graph so as you can see this is simply fair in python you can try that and i will now your task is you run page rank algorithm on this particular graph and tell us who was the leader of the group. So i hope that this programming screen cast was useful to all of you thank you.