import networkx as nx

import random as r

import numpy as np

def add\_edge(g,p):

for u in g.nodes():

for v in g.nodes():

if u!=v:

ran=r.randint(0,1)

if ran<=p:

g.add\_edge(u,v)

return g

def walk(g,point):

nd=g.nodes()

node=[x for x in nd]

ran=r.choice(node)

out=[x[1] for x in g.out\_edges(ran)]

point[ran]+=1

for ele in range(2):

if len(out)==0:

focus=r.choice(nd)

else:

r\_nei=r.choice(out)

focus=r\_nei

point[focus]+=1

out=[x[1] for x in g.out\_edges(ran)]

print point

return point

n=10

g=nx.DiGraph()

for var in range(n):

g.add\_node(var)

g=add\_edge(g,0.5)

point=[0 for ele in range(n)]

points=walk(g,point)

temp=np.array(points)

result=np.argsort(-temp)

print result

pr=nx.pagerank(g)

sort=sorted(pr.items(),key = lambda x:x[1] , reverse=True)

array=[x[0] for x in sort]

print array