vector\_dict={"A":[0,1,1,0],

"B":[0,0,0,0],

"C":[0,1,0,1],

"D":[1,0,0,0]}

df=0.85

PageRank={"A":1,"B":1,"C":1,"D":1}

columns={"A":0,"B":1,"C":2,"D":3}

def connections(page):

column=columns[page]

incomings=[]

for i in vector\_dict.keys():

for connections in range(len(vector\_dict[i])):

if connections==column and

vector\_dict[i][connections]==1:

incomings.append(i)

return incomings

def outDegree(node):

count=0

for i in vector\_dict[node]:

if i==1:

count+=1

return count

for iteration in range(3):

for i in PageRank.keys():

factor=0

incoming\_nodes=connections(i)

for node in incoming\_nodes:

factor+=PageRank[node]/outDegree (node)

PageRank[i]=(1-df)/4+df\*factor

print("Iteration", iteration, ":", PageRank)