Experiment 8

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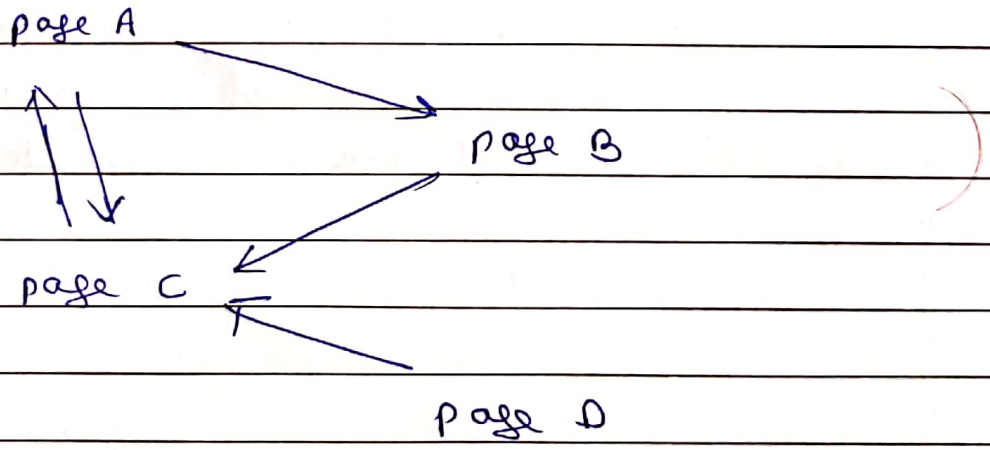
Aim : To implement page rank algorithm.

Theory - Page rank algorithm can be adapted to analyze and rank elements other than web page. It evaluates the importance of elements within a network based on linked structures. It can be applied to various domains. In data mining particularly in graph based analysis it can be used to determine the significance or influence of nodes within a network. It considers both quality and quantity of the likes.

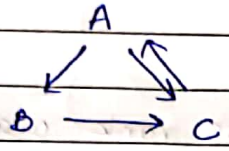
Page rank formula =

$$PR(p) = (1-d) + d \sum \frac{PR(q)}{Nq}$$

d = damping factor



The page rank is calculated below.



$PR(A) = 0.5 + 0.5\, PR(C)$

$PR(B) = 0.5 + 0.5\, (PR(A)/2)$

$PR(C) = 0.5 + 0.5 + (PR(A)/2 + PR(B))$

$\therefore \quad PR(A) = \frac{14}{13} = 1.076$

$PR(B) = \frac{10}{13} = 0.76923$

$PR(C) = \frac{15}{13} = 1.153$

Conclusion : Thus we implemented the page ranking algorithm and successfully found the results.