Logic

- Read the excel datasheet as a pandas Dataframe
- Fill all null (NaN) values with ‘0’.
- Remove the unnecessary index rows and columns • Convert the dataframe to NumPy adjacency matrix.
- Create a networkx graph and using the adjacency matrix
- Create a dictionary to store the count of nodes visited.
- Start with a random node
- Loop 1-100000 ○ Choose a random node to visit from the outgoing edges of the current node.
    - ○ Increment the count of the chosen node
- Return the dictionary containing the counts of nodes visited

Why Random Walk?

The idea behind random walk is that for a large number of iterations, the number of visits to a particular node will depend on the number of incoming edges to that node and the number of edges that are coming to those nodes as well. When we execute this for thousands of iterations, the proportion of visits to a particular node converges to a point that is equal to the eigenvector of the probability matrix.

Output

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Output exceeds the size limit. Open the ful
Gupta, Aayush                10165
R K, Vysakh                   4606
Pasricha, Stuti               3571
Sonnathi, Sumanth             3397
Shelke, Ganesh Balasaheb      3151
Pandey, Aditya                3109
Gupta, Shivanshu              3100
Agravanshi, Subandhu          3067
K, Monish                     2793
Walia, Muskaan                2788
Kumar, Kishlay                2775
Abdul Khader, Syed            2737
Paul, Suvrojyoti              2604
Narayan, Anchit               2602
Singh, Asheesh Kumar          2522
Wasan, Pragya                 2521
Sankar, Kirubananth           2286
Krishna K, Pramod             2280
Saini, Vanshu                 2249
Satheesan, Pranav             2188
Pandey, Savyasachi            2170
Gowda, Adarsh                 2160
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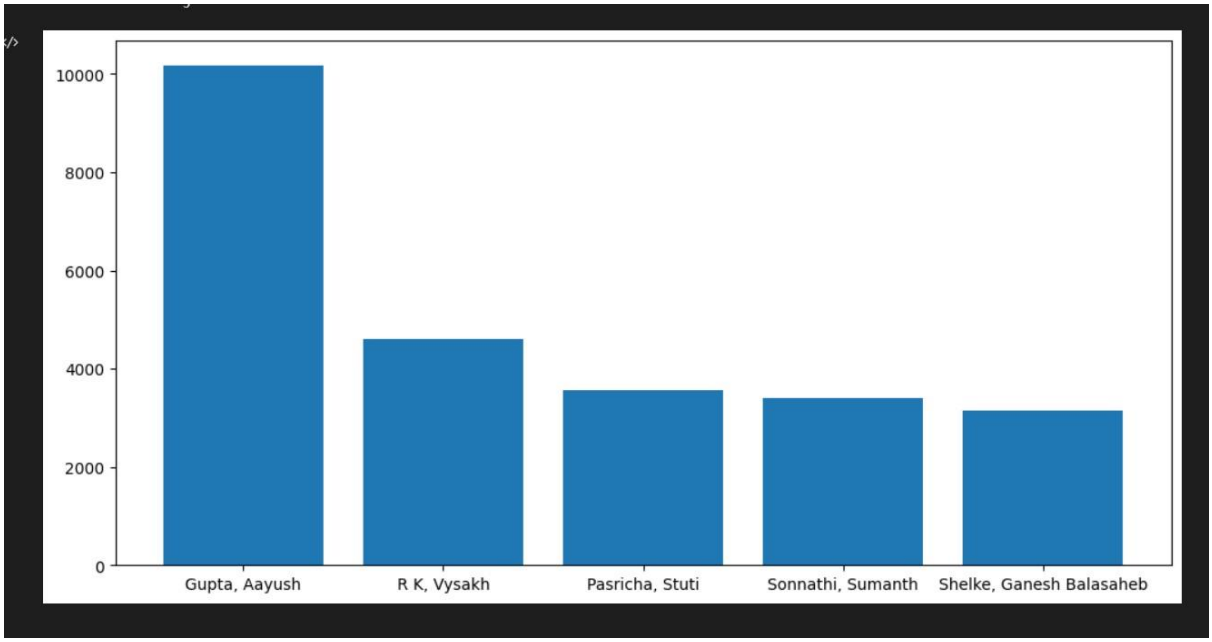

From the above plot and results, we can confirm that the leader is Aayush Gupta with approximately 10% of the total visits.