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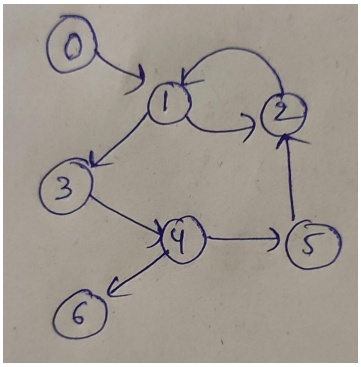
Instructions to run:

1. Go to the directory containing all the files.

2. To run - $ python3 trustRank.py.
   NOTE: It is advised to run the file on Google Colab by uploading required txt files, as all dependencies are present by default.

3. Inputs for this are a directed graph, some good nodes, some bad nodes, damping factor beta.

4. For graph - Keep a “graph.txt” file in the same directory as trustRank.py with the edges of the graph in that file.
   Eg:



The “graph.txt” file for the above graph is

```
0 1
1 2
1 3
2 1
3 4
4 5
4 6
5 2
```

*** We have taken the example which is given in the paper. And the data is present in the “sample_graph.txt” file. If you want to run on the original data set, then change the file name in “with()” in “trustRank.py.”

Sample Input:

- Let's take the above example as input with nodes 0, 1, 2, 3 as good nodes and 4, 5, 6 as bad nodes.
- Please give the input in the format shown below.

```
ubuntu@ubuntu ~/D/SEM-7> python3 Q3.py
Enter number of good nodes: 4
0
1
2
3
Enter number of bad nodes: 3
4
5
6
Enter damping factor: 0.85
```

Sample Output:

- For damping factor = 0.85, Limit of Oracle invocations = 3, and maximum iterations = 20, the output will be as shown below.

```
ubuntu@ubuntu ~/D/SEM-7> python3 Q3.py
Enter number of good nodes: 4
0
1
2
3
Enter number of bad nodes: 3
4
5
6
Enter damping factor: 0.85

Trust scores of all the nodes are as follows:
0.0 0.17977109292167226 0.12307085379674082 0.15139467113198862 0.12889459781496565 0.05472390055330551 0.05472390055330551
```

- You can modify the values of L and Max_iters in the main function as you wish.