Project name: DS561-WYC-5304

Bucket name: hw2-ds561

Github Repository Link: https://github.com/wyc-wyll/pagerank-program.git

Running Program:

1. Python script is stored in the bucket. First obtain the bucket by doing the following

```
gcloud storage cp gs://hw2-ds561/compute-properties.py
<<Destination>>
```

2. To run the script, do

```
python3 compute-properties.py
```

3. The end result will be in the following format.

```
Outgoing average: 124.6873
Outgoing median: 125.0
Outgoing max: 249
Outgoing min: 0
1st Outgoing Quintile: 50.0
2nd Outgoing Quintile: 100.0
3rd Outgoing Quintile: 149.0
4th Outgoing Quintile: 199.0
5th Outgoing Quintile: 249.0
Incoming average: 124.6873
Incoming median: 124.0
Incoming max: 166
Incoming min: 86
1st Incoming Quintile: 115.0
2nd Incoming Quintile: 122.0
3rd Incoming Quintile: 127.0
4th Incoming Quintile: 134.0
5th Incoming Quintile: 166.0
Graph Adjacency list:
[[0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 ...
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]
 [0 0 0 ... 0 0 0]]
Pagerank ordered by html filename value (1,2,3,...,9999):
[0.260156   0.27101105 0.26836635 ... 0.24541444 0.28316165
0.27989055]
top 5 ranked pages:
[2985 3108 2356 9560 3264]
```

4. The graph representation would be in the parameter `matrix`, in the form of an adjacency list
5. pagerank result would be in the parameter `pagerank_result`, in the form of an array. Each value stands for the pagerank score for the website starting with the corresponding indices in the filename
6. Top 5 pagerank results would be in the parameter `top_5`, in the form of an array of 5 elements