**Assignment-6**

The input file is generated manually. The sample input file is given in the submission folder.

**Input File:**

PageA,0.5 PageM, PageY

PageY,0.5 PageA, PageY

PageM,0.5 PageA

**PageRankMapper:**

This class creates the new page rank for each page given in the input file.

For e.g- For the 1st iteration,

Rank for PageM 🡪 0.5/2 \* beta (where beta is any value between 0.8 and 0.9)

This output along with the output links is given as input to the reducer class.

**PageRankReducer:**

This class sums up all the ranks for each page.

The output of reducer is something similar to this:

PageA,0.6 PageM, PageY

PageM,0.2 PageA

PageY,0.4 PageA, PageY

These are the new ranks of each page along with the output link.

**DriverClass:**

This class reads both the input file and the output file and calculates the difference between the ranks for each page. The new ranks and the pagenode are stored in a hashmap. The hashmap is updated with every iteration.

The rankDifference method calculates the difference in ranks by reading both the input and the outputfile. The output of 1st iteration becomes input of 2nd iteration.

The job configured in the driver class is run until the difference (sum) becomes smaller than epslon, where epslon is a small value (0.1 in this case).

The final output is stored in the final output folder.

**Instructions to run the Program:**

1. Import the project to eclipse.

2. Change the input and output file locations in driver class based on your local system locations.

3. Store the test\_input.txt in the input file location.

4. Run the driver class.