

**Please follow the below steps to build and execute both the standalone and AWS Elastic MapReduce (EMR) versions of my program:**

**Step 1** - On unzipping my solution you will get following deliverables in one folder:

1\_Report - pdf report as required

2\_SourceCode – source code (Java Maven Project) & Makefile (see step 2 for running the code)

3\_AWSSyslogFiles - plain text syserr and sysout files inside below folders

- wiki-full-dataset 6-machines (1 Master & 5 Workers)
- wiki-full-dataset 11-machines (1 Master & 10 Workers)
- simple-dataset 6-machines (1 Master & 5 Workers)

4\_AWSOutputFiles - output files (Top-100 pages with pagerank)

HW3 – MapReduce folder has below files:

- wiki-full-dataset 6-machines (1 Master & 5 Workers)
- wiki-full-dataset 11-machines (1 Master & 10 Workers)
- simple-dataset 6-machines (1 Master & 5 Workers)

HW4 – Spark folder has below files:

- wiki-full-dataset 6-machines (1 Master & 5 Workers)
- wiki-full-dataset 11-machines (1 Master & 10 Workers)
- simple-dataset 6-machines (1 Master & 5 Workers)

**Step 2:** Steps to build and execute the program on local and AWS (location: 2\_SourceCode/PageRank)

2.1 Copy the input file(s) into input folder (PageRank/input)

2.2 Open terminal and cd to this PageRank directory

2.3 You can configure the value of alpha, noOfIteration and kForTopK in Makefile:

- args.alpha : alph to be used in PageRank calculation
- args.noOfIteration : no of PageRank iterations to run
- args.kForTopK : K for getting Top-K records

2.4 Execute in Local

- Run the below command to execute the program in local  
"make alone"
- Output files will be generated in the same directory.

2.5 Execute on AWS

- Run the below commands to execute the program on AWS
  - "make upload-input-aws" : command to upload the input to aws (it will copy the input files into dspatel28 bucket)
  - "make cloud" : to execute the program/job on AWS
- After execution, you can find the output results and logs in dspatel28 bucket
- At last, you can delete all the data from dspatel28 bucket by running below command:  
"make delete-s3-aws"