

## Big Data HW1 README:

1. Submitted by: dxd132630 Name: deepiti deshpande
2. The submission file contains :
  1. dxd132630HW1.jar file
  2. README.txt

## Contents of JAR file and the execution details:

1. The JAR file contains all the necessary BUILD libraries
2. Three class files for each part of the question respectively:
  1. AgeBasedList.java : This Class file is the implementation of the Mapreduce function for HW1 part 1. The class file has only the implementation of the Map function with NULLwritable value.

Command to execute the class file :

```
hadoop jar <path_to_Jar_dir>/dxd132630HW1.jar AgeBasedList input output
```

Where input and output are dfs locations for input and output directories.

Expected output : The list of Male UserIds Whose age is less then or equal to 7

2. AgeGrouping.java :This class file is the implementation of the Mapreduce function for HW1 part 2  
The class file has both map and reduce method implementation. The mapper class emits the Age and gender as key and 1 as value  
The reduce method counts the number of male or female based on the age group  
Assumptions :  
51 is emitted when age is >=45 and <=54  
56 is emitted when age is >=55 and <=61

Command to execute the class file:

```
hadoop jar <path_to_Jar_dir>/dxd132630HW1.jar AgeGrouping input ouput
```

Where input and output are dfs locations for input and output directories.

Expected output : Count of Male and female users based on the age group:

```
56 F 350
56 M 146
62 F 278
62 M 102
7 F 144
7 M 78
```

3. GenreBasedList.java : This class file is the implementation of the Mapreduce function for HW1 part 3. The class file has only Map menthod implementation. It reads the input files and lists the movies that match the Genre mentioned by the user in the command line. \*\*\*The genre passed in the command line is case sensitive\*\*\*\*

Command to execute the class file:

```
hadoop jar <path_to_Jar_dir>/dxd132630HW1.jar GenreBasedList input ouput <genre>
```

example : `hadoop jar dxd132630HW1.jar GenreBasedList input ouput Drama`  
Where input and output are dfs locations for input and output directories.

Expected output : The list of the movies which belong to the mentioned genre in the command line