

Report for Lab Assignment 4

1.

QUESTION:

Hadoop MapReduce Algorithm

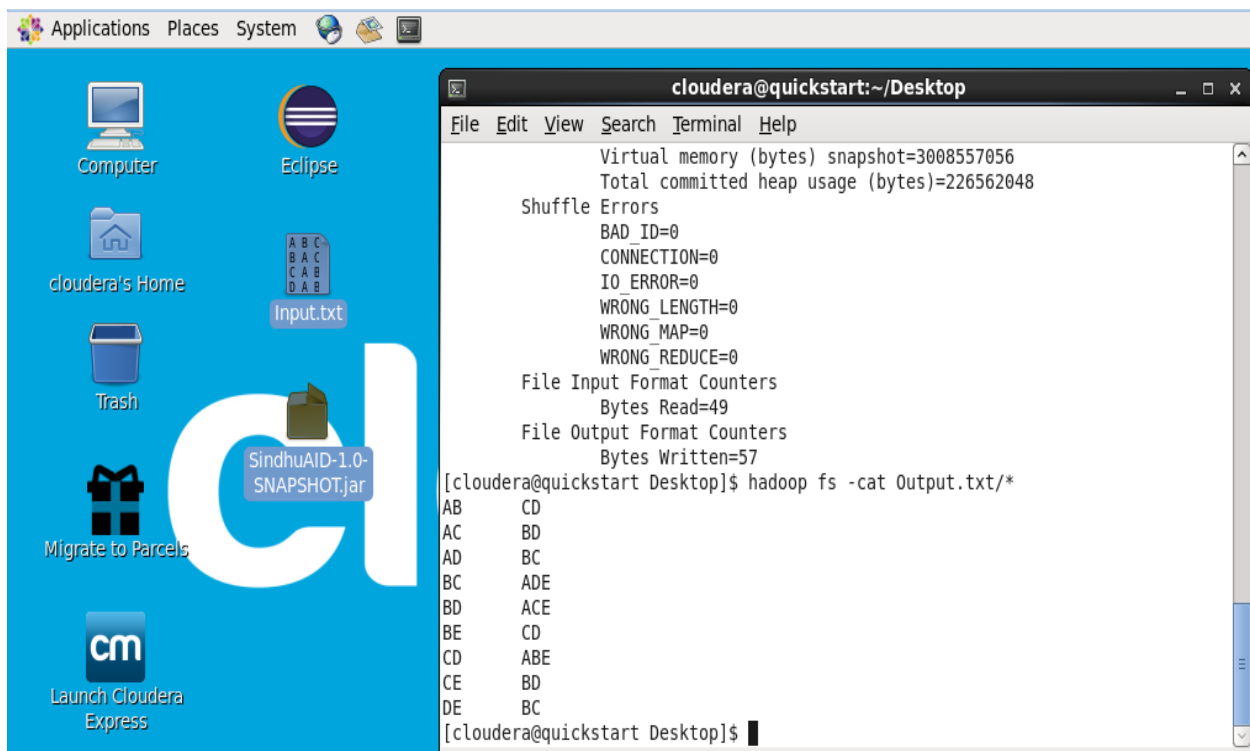
Implement MapReduce algorithm for finding Facebook common friends problem and run the MapReduce job on Apache Hadoop. Write a report including your algorithm and result screenshots.

DESCRIPTION:

MapReduce algorithm to find facebook friends is implemented based on the following input. The output corresponding to the give input is shown below.

A B C D
B A C D E
C A B D E
D A B C E
E B C D

SCREENSHOT:



The screenshot shows a Cloudera Quickstart desktop environment. The desktop background is blue with various icons including 'Computer', 'Eclipse', 'cloudera's Home', 'Trash', 'Migrate to Parcels', and 'Launch Cloudera Express'. A terminal window titled 'cloudera@quickstart:~/Desktop' is open, displaying the output of a Hadoop MapReduce job. The output shows shuffle errors (all zero), file input/output format counters (Bytes Read=49, Bytes Written=57), and the final output of the job, which lists common friends for each user.

```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
Virtual memory (bytes) snapshot=3008557056
Total committed heap usage (bytes)=226562048
Shuffle Errors
BAD_ID=0
CONNECTION=0
IO_ERROR=0
WRONG_LENGTH=0
WRONG_MAP=0
WRONG_REDUCE=0
File Input Format Counters
Bytes Read=49
File Output Format Counters
Bytes Written=57
[cloudera@quickstart Desktop]$ hadoop fs -cat Output.txt/*
AB      CD
AC      BD
AD      BC
BC      ADE
BD      ACE
BE      CD
CD      ABE
CE      BD
DE      BC
[cloudera@quickstart Desktop]$
```

2.

QUESTION:

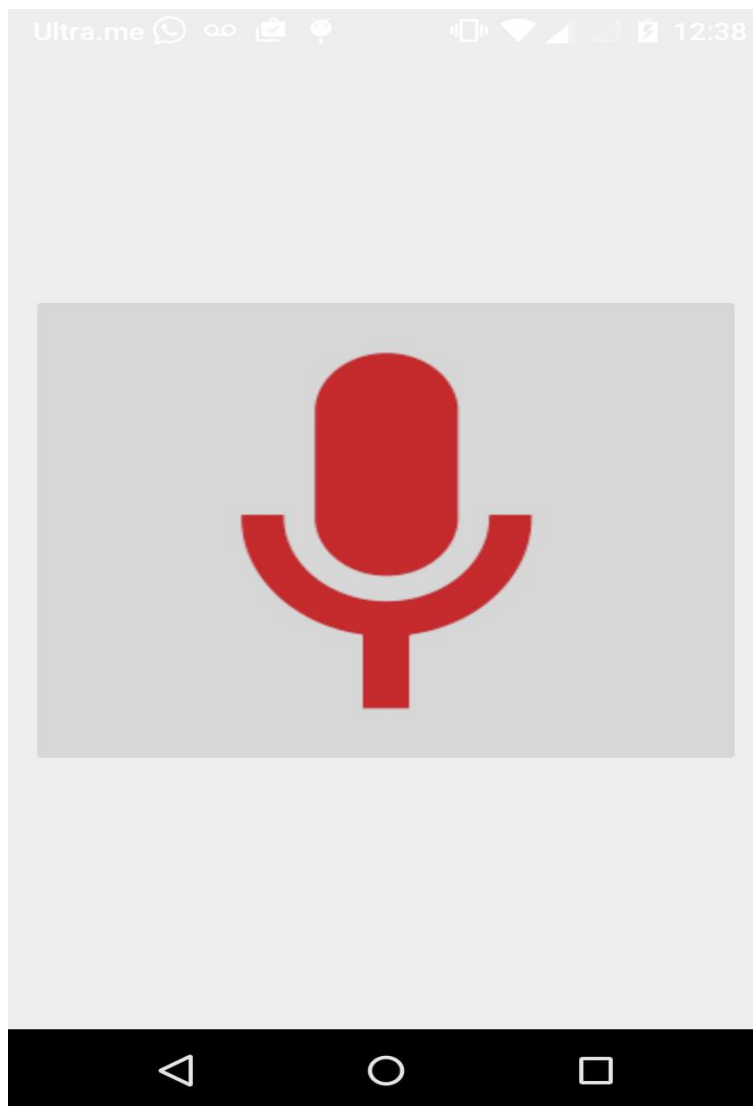
Smartphone/Watch Application

Implement a smartwatch/smartphone application using existing speech services/image services (e.g., IBM Alchemyapi, Face++) related to your project.

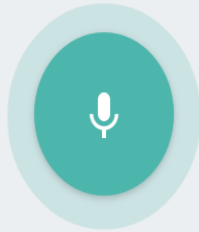
DESCRIPTION:

A Smartphone application is built using speech services. An audio message is received and converted to text message.

SCREENSHOTS:



Speak now



Google



hello I am Sindhu

