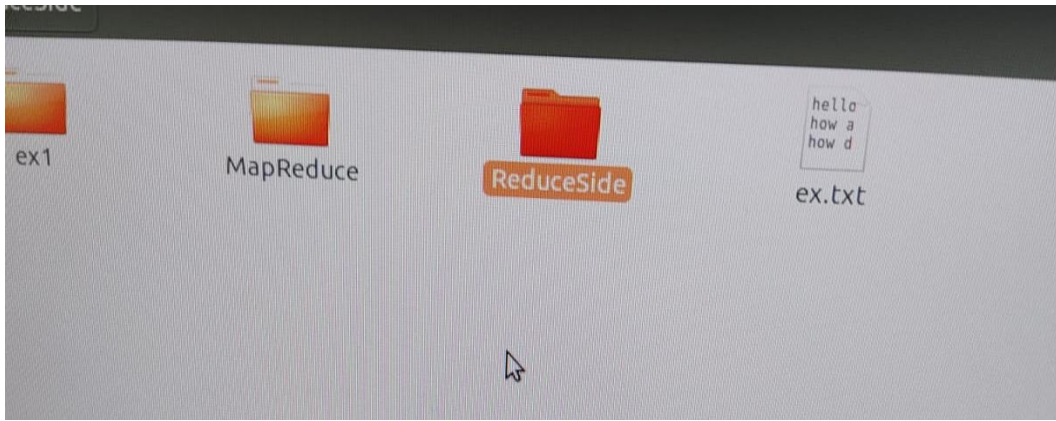


Experiment – Reduce Side Join Program Execution Steps:

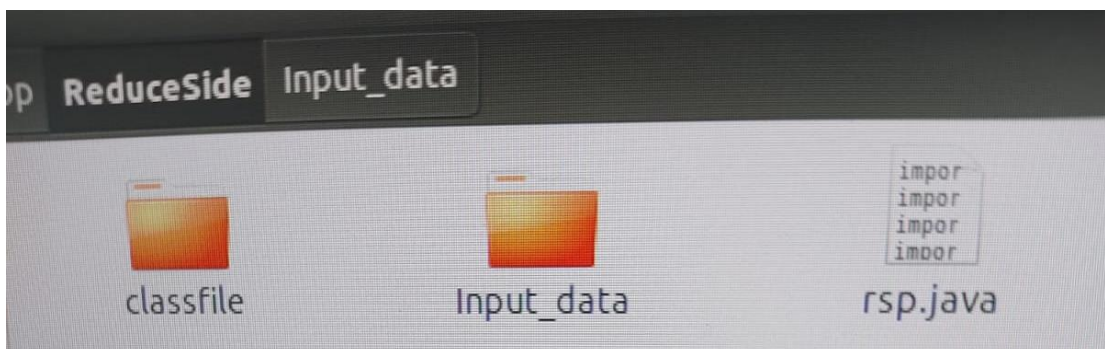
1. Download the text and program files, and place in a separate folder in desktop.
2. In the desktop, create a folder, For ex: here the folder name is given as ReduceSide.



3. Inside this folder create an Input_data folder and place the input text files and rsp.java program file



4. Inside the **ReduceSide** folder create an empty folder name **classfile**.



5. Now, Start basic services,

```
ponny@ubuntu: ~  
ponny@ubuntu:~$ start-all.sh  
Warning: $HADOOP_HOME is deprecated.  
  
starting namenode, logging to /home/ponny/hadoop/libexec/../  
localhost: starting datanode, logging to /home/ponny/hadoop/  
localhost: starting secondarynamenode, logging to /home/ponny/  
namenode-ubuntu.out  
starting jobtracker, logging to /home/ponny/hadoop/libexec../  
localhost: starting tasktracker, logging to /home/ponny/hadoop/  
tasktracker.out  
ponny@ubuntu:~$ java -version  
java version "1.7.0_201"  
OpenJDK Runtime Environment (IcedTea 2.6.17) (7u211-2.6.17-0ubuntu1)  
OpenJDK Client VM (build 24.201-b00, mixed mode, sharing)  
ponny@ubuntu:~$ jps  
4352 Jps  
3830 DataNode  
4086 JobTracker  
3998 SecondaryNameNode  
3586 NameNode  
4247 TaskTracker  
ponny@ubuntu:~$
```

```
ponny@ubuntu: ~  
4247 TaskTracker  
ponny@ubuntu:~$ export HADOOP_PATH=$(hadoop classpath)  
Warning: $HADOOP_HOME is deprecated.  
  
ponny@ubuntu:~$ echo $HADOOP_PATH  
/home/ponny/hadoop/libexec/../conf:/usr/lib/jvm/java-7-openjdk-1.386/lib/  
:/home/ponny/hadoop/libexec/../hadoop-core-1.0.4.jar:/home/ponny/hadoop/  
y/hadoop/libexec/../lib/aspectjrt-1.6.5.jar:/home/ponny/hadoop/libexec../  
ny/hadoop/libexec/../lib/commons-beanutils-1.7.0.jar:/home/ponny/hadoop/l  
1.8.0.jar:/home/ponny/hadoop/libexec../lib/commons-cli-1.2.jar:/home/pon  
c-1.4.jar:/home/ponny/hadoop/libexec../lib/commons-collections-3.2.1.jar:  
mmons-configuration-1.6.jar:/home/ponny/hadoop/libexec../lib/commons-daem  
xec../lib/commons-digester-1.8.jar:/home/ponny/hadoop/libexec../lib/comm  
bexec../lib/commons-httpclient-3.0.1.jar:/home/ponny/hadoop/libexec../lib  
oop/libexec../lib/commons-lang-2.4.jar:/home/ponny/hadoop/libexec../lib/c  
y/hadoop/libexec../lib/commons-logging-api-1.0.4.jar:/home/ponny/hadoop/li  
home/ponny/hadoop/libexec../lib/commons-net-1.4.1.jar:/home/ponny/hadoop/li  
ponny/hadoop/libexec../lib/hadoop-capacity-scheduler-1.0.4.jar:/home/ponny/  
cheduler-1.0.4.jar:/home/ponny/hadoop/libexec../lib/hadoop-thriftfs-1.0.4.j  
lib/hsqldb-1.8.0.10.jar:/home/ponny/hadoop/libexec../lib/jackson-core-asl-1.8  
../lib/jackson-mapper-asl-1.8.8.jar:/home/ponny/hadoop/libexec../lib/jasper  
hadoop/libexec../lib/jasper-runtime-5.5.12.jar:/home/ponny/hadoop/libexec../  
oop/libexec../lib/jersey-core-1.8.jar:/home/ponny/hadoop/libexec../lib/jer  
p/libexec../lib/jersey-server-1.8.jar:/home/ponny/hadoop/libexec../lib/jets3  
libexec../lib/jetty-6.1.26.jar:/home/ponny/hadoop/libexec../lib/jetty-util-6.1  
xec../lib/jsch-0.1.42.jar:/home/ponny/hadoop/libexec../lib/junit-4.5.jar:/hom  
fs-0.2.2.jar:/home/ponny/hadoop/libexec../lib/log4j-1.2.15.jar:/home/ponny/had  
1.8.5.jar:/home/ponny/hadoop/libexec../lib/oro-2.0.8.jar:/home/ponny/hadoop/li  
081211.jar:/home/ponny/hadoop/libexec../lib/slf4j-api-1.4.3.jar:/home/ponny/had  
12-1.4.3.jar:/home/ponny/hadoop/libexec../lib/xmlenc-0.52.jar:/home/ponny/hadoop
```

```
generic options supported are  
conf <configuration file> specify an applic  
D <property=value> use value for giv  
-fs <local|namenode:port> specify a namenod  
-jt <local|jobtracker:port> specify a job trac  
-files <comma separated list of files> specify  
-libjars <comma separated list of jars> specif  
-archives <comma separated list of archives> sp  
te machines.  
  
The general command line syntax is  
bin/hadoop command [genericOptions] [commandOptions]  
  
ponny@ubuntu:~$ hadoop fs -mkdir /mapreduce/Input  
Warning: $HADOOP_HOME is deprecated.  
  
ponny@ubuntu:~$
```



```
ponny@ubuntu:~$ hadoop fs -mkdir /reduceside
Warning: $HADOOP_HOME is deprecated.

ponny@ubuntu:~$ hadoop fs -mkdir /reduceside/Input
Warning: $HADOOP_HOME is deprecated.

ponny@ubuntu:~$
```

```
ponny@ubuntu:~$ hadoop fs -put '/home/ponny/Desktop/ReduceSide/Input_data/employees.csv' /reduceside/Input
Warning: $HADOOP_HOME is deprecated.

ponny@ubuntu:~$ hadoop fs -put '/home/ponny/Desktop/ReduceSide/Input_data/salaries.csv' /reduceside/Input
Warning: $HADOOP_HOME is deprecated.

ponny@ubuntu:~$
```

(no subject) - sudharson x HDFS:/

localhost:50075/browseDirectory.jsp?namenodeInfoPort=50070

Contents of directory /

Goto: / go

Name	Type	Size	Replication	Block Size	Modification Time	Permission	Owner	Group
app	dir							
firstexercise	dir				2025-02-24 10:17	rw-r--r--	ponny	super
mapreduce	dir				2025-02-24 10:41	rw-r--r--	ponny	super
mapsidejoin	dir				2025-03-10 12:01	rw-r--r--	ponny	super
reduceside	dir				2025-03-03 11:04	rw-r--r--	ponny	super
tmp	dir				2025-03-10 12:02	rw-r--r--	ponny	super
user	dir				2024-04-08 16:09	rw-r--r--	ponny	super
					2025-02-24 10:21	rw-r--r--	ponny	super

Go back to DFS home

HDFS:/reduceside/Input - Mozilla Firefox

(no subject) - sudharson x HDFS:/reduceside/Input

localhost:50075/browseDirectory.jsp?dir=%2Freduceside%2FInput

Contents of directory /reduceside/Input

Goto: /reduceside/Input go

Go to parent directory

Name	Type	Size	Replication	Block Size	Modification Time	Permission	Owner	Group
employees.csv	file	0.04 KB	1	64 MB	2025-03-10 12:03	rw-r--r--	ponny	super
salaries.csv	file	0.04 KB	1	64 MB	2025-03-10 12:04	rw-r--r--	ponny	super

Go back to DFS home

```
ponny@ubuntu:~$ cd Desktop
ponny@ubuntu:~/Desktop$ cd ReduceSide
ponny@ubuntu:~/Desktop/ReduceSide$
```

```
ponny@ubuntu:~/Desktop/ReduceSide$ javac -classpath ${HADOOP_PATH} -d '/home/ponny/Desktop/ReduceSide/classfile' '/home/ponny/Desktop/ReduceSide/rsp.java'
added manifest
adding: rsp.class(in = 1477) (out= 835)(deflated 43%)
adding: rsp$JoinReducer.class(in = 2006) (out= 891)(deflated 55%)
adding: rsp$JoinMapper.class(in = 1625) (out= 686)(deflated 57%)
ponny@ubuntu:~/Desktop/ReduceSide$
```



```
ponny@ubuntu:~/Desktop/ReduceSide$ hadoop jar '/home/ponny/Desktop/ReduceSide/rsd.jar' rsp /reduceside/Input /reduceside/Output
Warning: SHADOOP_HOME is deprecated.
25/03/10 12:23:07 WARN mapred.JobClient: Use GenericOptionsParser for parsing the arguments. Applications should implement Tool for the same
25/03/10 12:23:08 INFO input.FileInputFormat: Total input paths to process : 2
25/03/10 12:23:08 INFO util.NativeCodeLoader: Loaded the native-hadoop library
25/03/10 12:23:08 WARN snappy.LoadSnappy: Snappy native library not loaded
25/03/10 12:23:08 INFO mapred.JobClient: Running job: job_202503101157_0001
25/03/10 12:23:09 INFO mapred.JobClient: map 0% reduce 0%
```

HDFS:/reduceside - Mozilla Firefox

localhost:50075/browseDirectory.jsp?dir=%2Freduceside&namenode=...

Contents of directory /reduceside

Goto : go

[Go to parent directory](#)

Name	Type	Size	Replication	Block Size	Modification Time	Permission	Owner	Group
Input	dir				2025-03-10 12:04	rwxr-xr-x	ponny	su
Output	dir				2025-03-10 12:23	rwxr-xr-x	ponny	su

[Go back to DFS home](#)

HDFS:/reduceside/Output - Mozilla Firefox

localhost:50075/browseDirectory.jsp?dir=%2Freduceside%2FOutput&namenode=...

Contents of directory /reduceside/Output

Goto : go

[Go to parent directory](#)

Name	Type	Size	Replication	Block Size	Modification Time	Permission	Owner	Group
_SUCCESS	file	0 KB	1	64 MB	2025-03-10 12:23	rw-r--r--	ponny	su
_logs	dir				2025-03-10 12:23	rw-r--r--	ponny	su
part-r-00000	file	0.03 KB	1	64 MB	2025-03-10 12:23	rwxr-xr-x	ponny	su

[Go back to DFS home](#)

File: /reduceside/Output/part-r-00000

Goto : go

[Go back to dir listing](#)

[Advanced view/download options](#)

```
101 John, 5000
102 Alice, 6000
```

