

2) a.

```
[root@quickstart home]# hdfs dfs -mkdir rony
[root@quickstart home]# hdfs dfs -ls
Found 1 items
drwxr-xr-x  - root supergroup          0 2017-10-09 17:47 rony
[root@quickstart home]# _
```

2) b.

The screenshot shows the HUE File Browser interface. The top navigation bar includes links for Query Editors, Data Browsers, Workflows, Search, Security, File Browser, Job Browser, and clouders. The main area displays a table of files and directories in the /user/root path.

Name	Size	User	Group	Permissions	Date
.		hdfs	supergroup	drwxr-xr-x	October 09, 2017 10:49 AM
.		root	supergroup	drwxrwxrwx	October 09, 2017 10:47 AM
rony		root	supergroup	drwxr-xr-x	October 09, 2017 10:47 AM

2) c.

The screenshot shows an iTerm2 terminal window with the following output:

```
Launched map tasks=2
Launched reduce tasks=1
Data-local map tasks=2
Total time spent by all maps in occupied slots (ms)=34763
Total time spent by all reduces in occupied slots (ms)=19494
Total time spent by all map tasks (ms)=34763
Total time spent by all reduce tasks (ms)=19494
Total vcore-seconds taken by all map tasks=34763
Total vcore-seconds taken by all reduce tasks=19494
Total megabyte-seconds taken by all map tasks=35597312
Total megabyte-seconds taken by all reduce tasks=19961856

Map-Reduce Framework
Map input records=1607
Map output records=13370
Map output bytes=170102
Map output materialized bytes=196854
Input split bytes=238
Combine input records=0
Combine output records=0
Reduce input groups=9905
Reduce shuffle bytes=196854
Reduce input records=13370
Reduce output records=9905
Spilled Records=26740
Shuffled Maps =2
Failed Shuffles=0
Merged Map outputs=2
GC time elapsed (ms)=575
CPU time spent (ms)=4360
Physical memory (bytes) snapshot=739622912
Virtual memory (bytes) snapshot=4059521824
Total committed heap usage (bytes)=554696704

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=90233
File Output Format Counters
Bytes Written=131295
17/10/09 20:06:51 INFO streaming.StreamJob: Output directory: hwl_output
[root@quickstart home]#
```

About Hue

Job Browser

JOB ID

1504637662637\_22511

TYPE

MR2

USER

rx294

STATUS

SUCCEEDED

LOGS

Logs

MAPS

100%

REDUCES

100%

DURATION

12s

streamjob6962761983309323089.jar

Attempts

Tasks

Metadata

Counters

Text Filter

Name	Value
ID	1504637662637_22511
User	rx294
Maps	2 of 2
Reduces	32 of 32
Started	10/09/17 16:54:51
Ended	10/09/17 16:55:03
Duration	12623
Status	SUCCEEDED
dfs.balancer.address	0.0.0.0
dfs.balancer.block.move.timeout	0
dfs.balancer.keytab.enabled	false
dfs.balancer.max.no.move.interval	60000
dfs.block.access.key.update.interval	600
dfs.block.access.token.enable	false
dfs.block.access.token.lifetime	600
dfs.block.scanner.volume.bytes.per.second	1048576
dfs.blockreport.initialDelay	0
dfs.blockreport.intervalMssec	21600000
dfs.blockreport.split.threshold	1000000

hadoop rx294 rx294@RRR:about