

1

Namenode's URI is `hdfs://localhost:8020`, it's configured with `fs.default.name` property that's specified in `$HADOOP_CONF_DIR/core-site.xml`

NOTE: 8020 and 9000 are IPC ports for namenode. The default port for namenode UI is 50070.

2

Namenode will store its image under `/home/hadoop/Training/hadoop_work/data/name`, it's configured with `dfs.namenode.name.dir` property that's specified in `$HADOOP_CONF_DIR/hdfs-site.xml`

3

Datanode will store data blocks under `/home/hadoop/Training/hadoop_work/data/data`, it's configured with `dfs.datanode.data.dir` property that's specified in `$HADOOP_CONF_DIR/hdfs-site.xml`

4

Replication is set to 1, it's configured with `dfs.replication` property that's specified in `$HADOOP_CONF_DIR/hdfs-site.xml`

## Perform Solution

1. Perform the following steps:

```
$ cd $HADOOP_HOME/sbin
```

```
$ ./start-dfs.sh
```

 This will start the Namenode, Secondary Namenode all the configured

Datanodes, which in this case is just one (localhost)

You can verify with the browser or via command line:

Open a browser and just navigate to `http://localhost:50070`, make sure there are no warnings

under the summary of cluster section and there is 1 live node. We must make sure there are no 'Dead Nodes'

Secondary Namenode can be confirmed via `http://localhost:50090`

Execute on the command line `$ hadoop dfsadmin -report`, you will get a report about the

live node 1, dead node 0

2. `$ hdfs dfs -mkdir /exercise1`

3. Perform the following steps:

a. `$ cd /home/cloudera/Data`

b. `$ hdfs dfs -put /exercise1/`

4. `$ hdfs dfs -ls /exercise1/`

5. Perform the following steps:

a. `$ hdfs dfs -du -h largedeck.txt`

693 M 693 M largedeck.txt

6. `$ hdfs dfs -cat largedeck.txt | head -n 25 largedeck.txt`

7. `$ hdfs dfs -cp /exercise1/largedeck.txt /exercise1/largedeckcopy.txt`

8. `$ hdfs dfs -get /exercise1/hamlet.txt hamlet_copy.txt`

9. `$ hdfs fsck /`

10. `hdfs dfs -cp largedeck.txt /user/cloudera/new_folder`

`$ hdfs dfs -rm new_folder`

11. `$ hdfs dfs -rm -r`

12. `$ hdfs dfs -help`

