

# Course: MMDS

## Lab 01

# Set up Hadoop

**Fill answers of the questions below in the given tables.**

**Your screenshots must contain commands for required operations.**

### Question 1:

Set up Hadoop following this [tutorial](#) and then take a screenshot of the hdfs-site ([localhost:9870](#)) which shows information for NameNode Journal Status, NameNode Storage, DFS Storage Types (Overview page).

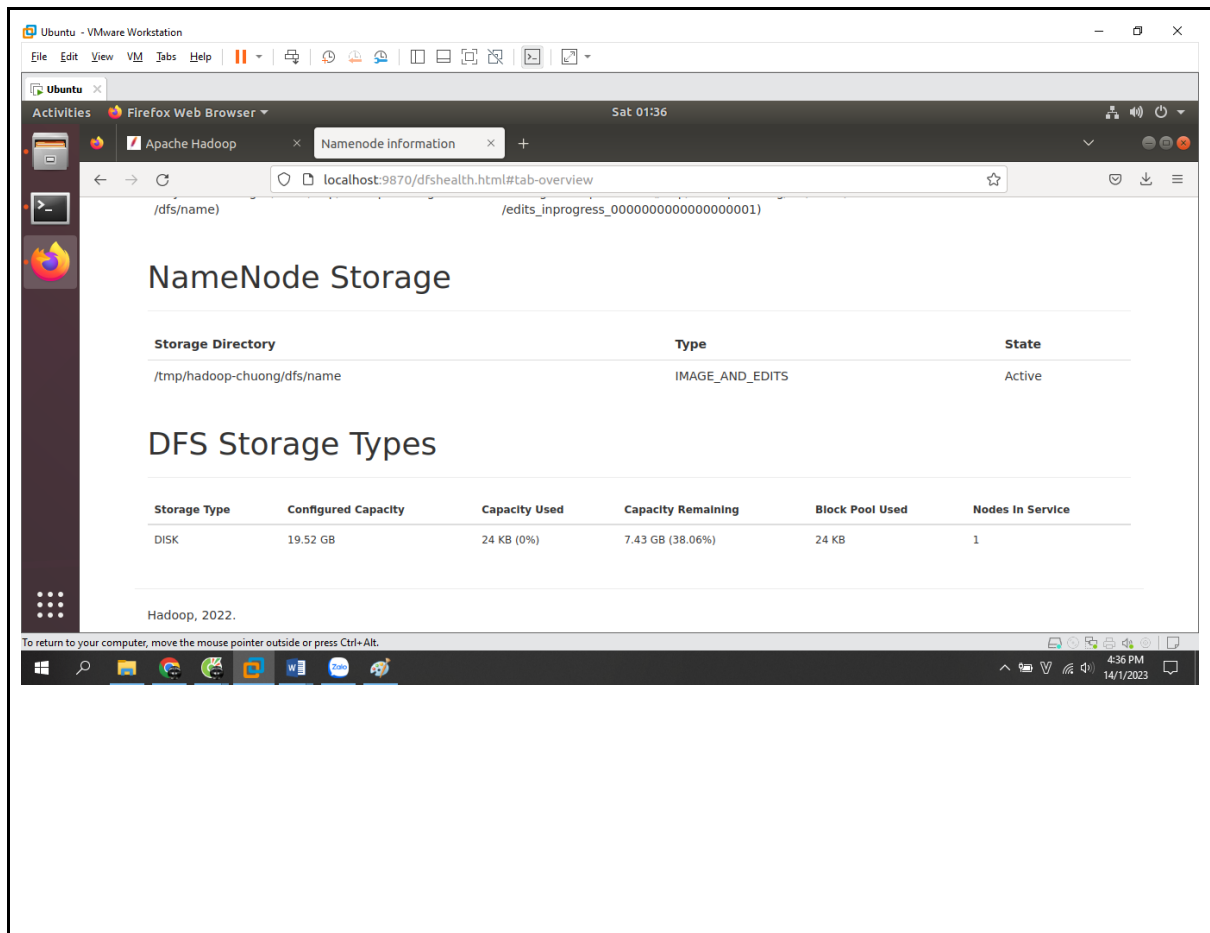
For example,

The screenshot shows a VMware Workstation window titled 'Ubuntu - VMware Workstation'. Inside, an Ubuntu desktop environment is visible with a Firefox Web Browser open. The browser has a tab titled 'Namenode information' and the address bar shows 'localhost:9870/dfshealth.html#tab-overview'. The page content displays Hadoop NameNode information, including memory usage and storage capacity.

Heap Memory used 66.25 MB of 154 MB Heap Memory. Max Heap Memory is 436 MB.  
Non Heap Memory used 47.53 MB of 48.9 MB Committed Non Heap Memory. Max Non Heap Memory is <unbounded>.

Configured Capacity:	19.52 GB
Configured Remote Capacity:	0 B
DFS Used:	24 KB (0%)
Non DFS Used:	11.07 GB
DFS Remaining:	7.43 GB (38.06%)
Block Pool Used:	24 KB (0%)
DataNodes usages% (Min/Median/Max/stdDev):	0.00% / 0.00% / 0.00% / 0.00%
Live Nodes	1 (Decommissioned: 0, In Maintenance: 0)
Dead Nodes	0 (Decommissioned: 0, In Maintenance: 0)
Decommissioning Nodes	0
Entering Maintenance Nodes	0
Total Datanode Volume Failures	0 (0 B)

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.



## Question 2:

Set up Hadoop following this [tutorial](#) and then take a screenshot of the yarn-site ([localhost:8088](http://localhost:8088)) which shows information for nodes (<http://localhost:8088/cluster/nodes> ). For example,



Ubuntu x

Activities Firefox Web Browser Sat 01:40

Nodes of the cluster x Namenode information x +

localhost:8088/cluster/nodes 90% ☆

Cluster

- About
- Nodes
- Node Labels
- Applications
- NEW
- NEW SAVING
- SUBMITTED
- ACCEPTED
- RUNNING
- FINISHED
- FAILED
- KILLED
- Scheduler

Tools

Cluster Metrics

Apps Submitted	Apps Pending	Apps Running	Apps Completed	Containers Running	Used Resources	Total Resources	Reserved Resources	Physical Mem Used %
0	0	0	0	0	<memory:0 B, vCores:0>	<memory:8 GB, vCores:8>	<memory:0 B, vCores:0>	93

Cluster Nodes Metrics

Active Nodes	Decommissioning Nodes	Decommissioned Nodes	Lost Nodes	Unhealthy Nodes	Rebooted Nodes	Shutdown Nodes
0	0	0	0	0	0	0

Scheduler Metrics

Scheduler Type	Scheduling Resource Type	Minimum Allocation	Maximum Allocation	Maximum Cluster Application Priority	Scheduler
Capacity Scheduler	[memory-mb (unit=Mi), vcores]	<memory:1024, vCores:1>	<memory:8192, vCores:4>	0	0

Show 20 entries

Node Labels	Rack	Node State	Node Address	Node HTTP Address	Last health-update	Health-report	Containers	Allocation Tags	Mem Used	Mem Avail	Phys Mem Used %	VCores Used	VCores Avail	Phys VCores Used %
/default-rack		RUNNING	ubuntu:44067	ubuntu:8042	Sat Jan 14 01:38:54 -0800 2023		0		0 B	8 GB	93	0	8	45

Starting nodemanagers

```
chuong@ubuntu:~$ hadoop fs -mkdir /user
chuong@ubuntu:~$
```

