

Assignment - 03

Sabaragamuwa University of Sri Lanka

Faculty of Computing

Software Engineering

SE6103 – Parallel and Distributed Systems

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Academic Period : 3rd Year 2nd Semester

Degree Program : Software Engineering

Question 2

```
PS D:\Academic\Semester 6\Docker\Assignment 3> docker-compose up -d
time="2025-01-06T14:12:25+05:30" level=warning msg="D:\\Academic\\Semester 6\\Docker\\Assignment 3\\docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 3/3
 ✓ Container historyserver Started 6.1s
 ✓ Container namenode Started 4.4s
 ✓ Container datanode Started 0.6s
PS D:\Academic\Semester 6\Docker\Assignment 3>
```

```
PS D:\Academic\Semester 6\Docker\Assignment 3> docker exec -it namenode hdfs dfs -put /sample.txt /input
2025-01-06 08:58:20,929 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localhostTrusted = false, remoteHostTrusted = false

What's next:
Try Docker Debug for seamless, persistent debugging tools in any container or image → docker debug namenode
Learn more at https://docs.docker.com/go/debug-cli/
PS D:\Academic\Semester 6\Docker\Assignment 3> docker exec -it namenode hdfs dfs -ls /input
-rw-r--r-- 3 root supergroup 181 2025-01-06 08:58 /input

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PS D:\Academic\Semester 6\Docker\Assignment 3>
```

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PS D:\Academic\Semester 6\Docker\Assignment 3> docker cp /path/to/wordcount.jar namenode:/opt/hadoop-3.2.1/wordcount.jar
CreateFile D:\path: The system cannot find the file specified.
```

```

2025-01-06 09:09:43,141 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
se
Hadoop 2
a 2
about 1
across 1
amounts 1
an 1
and 1
computers. 1
data 1
framework 2
interesting 1
is 2
large 1
learn 1
network 1
networking. 1
of 2
open-source 1
processes 1
stores 1
that 1
to 1
very 1

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```

Hadoop
Overview
Datanodes
Datanode Volume Failures
Snapshot
Startup Progress
Utilities

Overview 'namenode:8020' (active)

Started:	Mon Nov 25 14:07:15 +0530 2024
Version:	3.2.1, rb3cbbb467e22ea829b3608f4b7b01d07e0bf3642
Compiled:	Tue Sep 10 21:26:00 +0530 2019 by rohithsharmaks from branch-3.2.1
Cluster ID:	CID-0b00739e-9ec0-44e6-b53f-61d44ef6cec0
Block Pool ID:	BP-464144503-172.16.0.2-1732523830286

Summary



Logged in as: dr.who

All Applications

Application History

About

Applications

FINISHED

FAILED

KILLED

Tools

Show: 20 entries

Search

ID	User	Name	Application Type	Queue	Application Priority	StartTime	LaunchTime	FinishTime	State	FinalStatus	Progress	Tracking UI
No data available in table												
Showing 0 to 0 of 0 entries												
First Previous Next Last												

```
ASSIGNMENTS3
  docker-compose.yml
  sample.txt

1 version: "3"
2 services:
3   namenode:
4     image: bde2020/hadoop-namenode:latest
5     container_name: namenode
6     environment:
7       - CLUSTER_NAME=ShopSmartCluster
8       - CORE_CONF_fs_defaultFS=hdfs://namenode:8020
9     ports:
10      - "9870:9870"
11      - "9000:9000"
12     volumes:
13      - namenode-data:/hadoop/dfs/namenode
14
15   datanode:
16     image: bde2020/hadoop-datanode:latest
17     container_name: datanode
18     environment:
19       - CORE_CONF_fs_defaultFS=hdfs://namenode:8020
20     volumes:
21      - datanode-data:/hadoop/dfs/datanode
22     depends_on:
23      - namenode
24
25   historyserver:
26     image: bde2020/hadoop-historyserver:latest # Replace with a valid image if necessary
27     container_name: historyserver
28     depends_on:
29      - namenode
30      - datanode
31     ports:
32      - "8188:8188"
```

The image shows a screenshot of a Visual Studio Code editor window. The Explorer sidebar on the left shows a project named 'ASSIGNMENT3' with two files: 'docker-compose.yml' and 'sample.txt'. The 'docker-compose.yml' file is open in the main editor. The code is a Docker Compose configuration for a 'historyserver' service. It includes an image, container name, dependencies on 'namenode' and 'datanode', a port mapping, and an environment variable. There are also volume definitions for 'namenode-data' and 'datanode-data'.

```
25 services:
26   historyserver:
27     image: bde2020/hadoop-historyserver:latest # Replace with a valid image if necessary
28     container_name: historyserver
29     depends_on:
30       - namenode
31       - datanode
32     ports:
33       - "8188:8188"
34     environment:
35       - CORE_CONF_fs_defaultFS=hdfs://namenode:8020
36 volumes:
37   namenode-data:
38   datanode-data:
```