Звіт до роботи №4

Робота з HDFS.

Запустіть Hadoop. Виконайте наступні команди (В якості відповіді надайте Screen Shots):

```
~/Le/B/docker-hadoop > on master  docker ps                                  ✔ < base Py
CONTAINER ID  IMAGE                                               COMMAND                 CREATED      STATUS                     PORTS
 NAMES
6ff72626ee27  bde2020/hadoop-resourcemanager:2.0.0-hadoop3.2.1-java8   "/entrypoint.sh /run…"  5 weeks ago  Up 31 seconds (healthy)    8088/tcp
 resourcemanager
1f6e9a87ea77  bde2020/hadoop-nodemanager:2.0.0-hadoop3.2.1-java8       "/entrypoint.sh /run…"  5 weeks ago  Up About a minute (healthy)  8042/tcp
 nodemanager
d6af7e9fe0c4  bde2020/hadoop-namenode:2.0.0-hadoop3.2.1-java8          "/entrypoint.sh /run…"  5 weeks ago  Up About a minute (healthy)  0.0.0.0:9000->9000/tcp, 0.0.0.0:9870->9870/tcp
 namenode
bb0c89a8e85c  bde2020/hadoop-datanode:2.0.0-hadoop3.2.1-java8          "/entrypoint.sh /run…"  5 weeks ago  Up About a minute (healthy)  9864/tcp
 datanode
514b7ad457c7  bde2020/hadoop-historyserver:2.0.0-hadoop3.2.1-java8     "/entrypoint.sh /run…"  5 weeks ago  Up About a minute (healthy)  8188/tcp
 historyserver
```

\# listing directories and files
hdfs dfs -ls /

```
~/Learning/BigData/docker-hadoop > on master  docker exec -it namenode /bin/bash
root@d6af7e9fe0c4:/# hdfs dfs -ls /
Found 4 items
drwxrwxrwt   - root root                0 2022-10-22 23:46 /app-logs
drwxr-xr-x   - root supergroup          0 2022-10-22 23:24 /rmstate
drwx------   - root supergroup          0 2022-10-22 23:45 /tmp
drwxr-xr-x   - root supergroup          0 2022-10-22 23:37 /user
```

\# create a directory in hdfs
hdfs dfs -mkdir -p /MyDirectory

```
root@d6af7e9fe0c4:/# hdfs dfs -mkdir -p /MyDirectory
root@d6af7e9fe0c4:/# |
```

\# upload a file at the root
hdfs dfs -copyFromLocal /DataJek/helloWorld.txt /MyDirectory
Because docker running need copy file from local to the container first

```
docker (com.docker.cli)                                                   nano (nano)
  UW PICO 5.09                     File: ./helloWorld.txt                          Modified

Test Hello World|

^G Get Help    ^O WriteOut    ^R Read File    ^Y Prev Pg    ^K Cut Text      ^C Cur Pos
^X Exit        ^J Justify     ^W Where is     ^V Next Pg    ^U UnCut Text    ^T To Spell
```

```
~/Learning/BigData  cat ./helloWorld.txt
Test Hello World
```

```
~/Learning/BigData  docker cp ./helloWorld.txt d6af7e9fe0c4:/tmp
```

```
root@d6af7e9fe0c4:/# ls ./tmp/
hadoop-mapreduce-examples-2.7.1-sources.jar
hadoop-root-namenode.pid
helloWorld.txt
hsperfdata_root
```

```
root@d6af7e9fe0c4:/# hdfs dfs -copyFromLocal ./tmp/helloWorld.txt /MyDirectory
2022-11-29 14:09:17,775 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
```

verify helloWorld.txt is uploaded to root
hdfs dfs -ls /MyDirectory

```
root@d6af7e9fe0c4:/# hdfs dfs -ls /MyDirectory
Found 1 items
-rw-r--r--   3 root supergroup         17 2022-11-29 14:09 /MyDirectory/helloWorld.txt
```

check the size of the directory
hdfs dfs -du -s -h -v /MyDirectory

```
root@d6af7e9fe0c4:/# hdfs dfs -du -s -h -v /MyDirectory
SIZE  DISK_SPACE_CONSUMED_WITH_ALL_REPLICAS  FULL_PATH_NAME
17    51                                     /MyDirectory
```

view the contents of the file
hdfs dfs -cat /MyDirectory/helloWorld.txt

```
root@d6af7e9fe0c4:/# hdfs dfs -cat /MyDirectory/helloWorld.txt
2022-11-29 14:13:31,746 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
Test Hello World
```

or
hdfs dfs -text /MyDirectory/helloWorld.txt

```
root@d6af7e9fe0c4:/# hdfs dfs -text /MyDirectory/helloWorld.txt
2022-11-29 14:13:54,861 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
Test Hello World
```

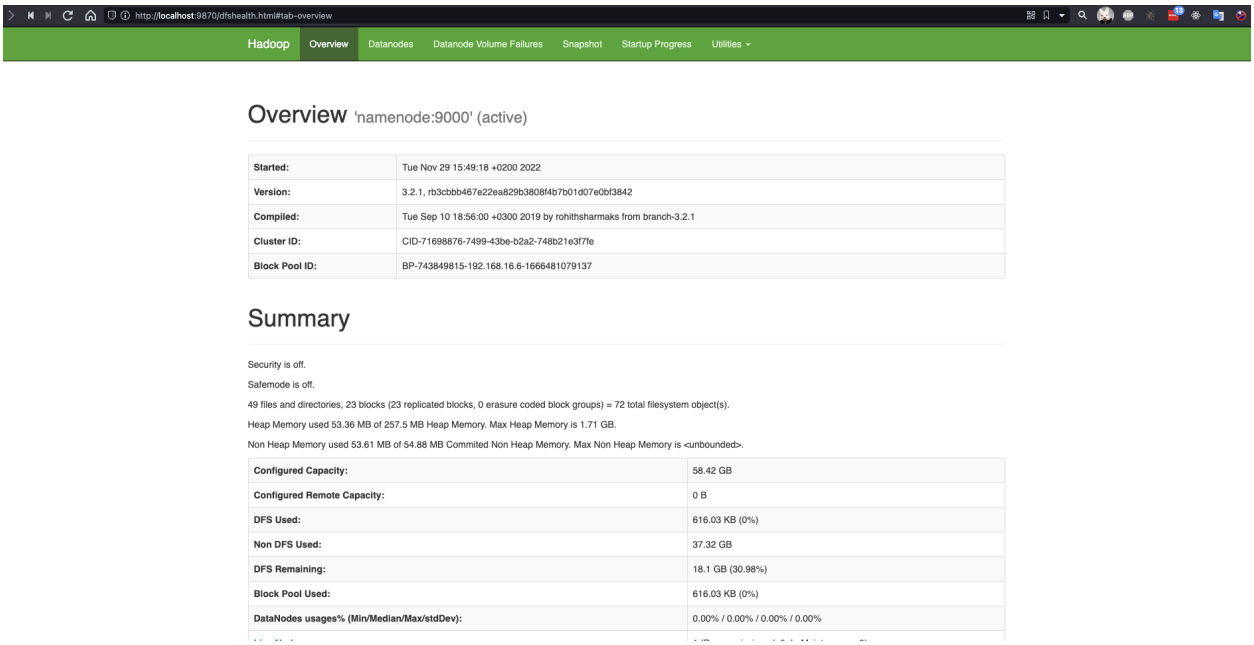
download the previously uploaded file
hdfs dfs -copyToLocal /MyDirectory/helloWorld.txt /Downloads/
First of all need to create such folder `Downloads`.

```
root@d6af7e9fe0c4:/# mkdir Downloads
root@d6af7e9fe0c4:/# ls
Downloads  KEYS  bin  boot  dev  entrypoint.sh  etc  hadoop  hadoop-data  home  lib  lib64  media  mnt  opt  proc  root  run  run.sh  sbin  srv  sys  tmp  usr  var
root@d6af7e9fe0c4:/# hdfs dfs -copyToLocal /MyDirectory/helloWorld.txt /Downloads/
2022-11-29 14:15:17,703 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
```

find operation
hdfs dfs -find / -iname "hello*"

```
root@d6af7e9fe0c4:/# hdfs dfs -find / -iname "hello*"
/MyDirectory/helloWorld.txt
```

Перевірте налаштування dfs.namenode.http-address за замовчанням порт 9870.
Перейдіть за адресою http://localhost:9870/dfshealth.html
Ви маєте побачити стан.



Виконайте наступні команди:
Retrieve the topology of the cluster
hdfs dfsadmin -printTopology

```
root@d6af7e9fe0c4:/# hdfs dfsadmin -printTopology
Rack: /default-rack
   192.168.16.3:9866 (datanode.docker-hadoop_default)
```

Get an admin report
hdfs dfsadmin -report

```
root@d6af7e9fe0c4:/# hdfs dfsadmin -report
Configured Capacity: 62725623808 (58.42 GB)
Present Capacity: 19433353244 (18.10 GB)
DFS Remaining: 19432722432 (18.10 GB)
DFS Used: 630812 (616.03 KB)
DFS Used%: 0.00%
Replicated Blocks:
        Under replicated blocks: 23
        Blocks with corrupt replicas: 0
        Missing blocks: 0
        Missing blocks (with replication factor 1): 0
        Block groups with corrupt internal blocks: 0
        Missing block groups: 0
        Low redundancy blocks with highest priority to recover: 0
        Pending deletion blocks: 0

-------------------------------------------------
Decommission Status : Normal
Configured Capacity: 62725623808 (58.42 GB)
DFS Used: 630812 (616.03 KB)
Non DFS Used: 40075554788 (37.32 GB)
DFS Remaining: 19432722432 (18.10 GB)
DFS Used%: 0.00%
DFS Remaining%: 30.98%
Configured Cache Capacity: 0 (0 B)
Cache Used: 0 (0 B)
Cache Remaining: 0 (0 B)
Last contact: Tue Nov 29 14:17:47 UTC 2022
Last Block Report: Tue Nov 29 13:49:23 UTC 2022
Num of Blocks: 23
```

Get the status of a Datanode
hdfs dfsadmin -getDatanodeInfo localhost:9867

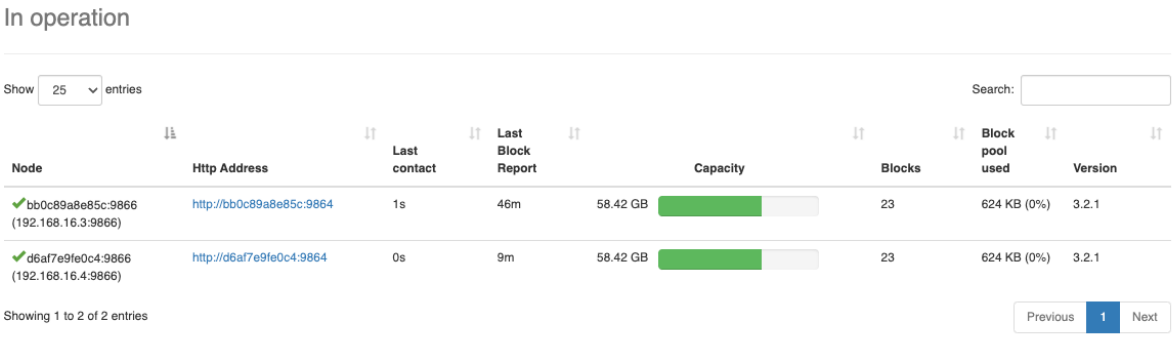
```
root@d6af7e9fe0c4:/# hdfs dfsadmin -getDatanodeInfo localhost:9867
Uptime: 5212, Software version: 3.2.1, Config version: core-3.0.0,hdfs-1
```

Retrieve the FS image
hdfs dfsadmin -fetchImage /Downloads

```
root@d6af7e9fe0c4:/# hdfs dfsadmin -fetchImage /Downloads
2022-11-29 14:20:01,441 INFO namenode.TransferFsImage: Opening connection to http://namenode:9870/imagetransfer?getimage=1&txid=latest
2022-11-29 14:20:01,594 INFO common.Util: Combined time for file download and fsync to all disks took 0.00s. The file download took 0.00s at 3000.00 KB/s. Synchronous (fsync) write to disk of /Downloads/fsimage_0000000000000000713 took 0.00s.
```

Attempt to start the Datanode
hdfs datanode

```
2022-11-29 14:25:49,605 INFO datanode.DataNode: STARTUP_MSG:
/************************************************************
STARTUP_MSG: Starting DataNode
STARTUP_MSG:   host = d6af7e9fe0c4/192.168.16.4
STARTUP_MSG:   args = []
STARTUP_MSG:   version = 3.2.1
STARTUP_MSG:   classpath = /etc/hadoop:/opt/hadoop-3.2.1/share/hadoop/common/lib/hadoop-auth-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerby-asn1-1.0.1.jar:/opt/hadoop-3.2.1/share
/hadoop/common/lib/jackson-mapper-asl-1.9.13.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jetty-webapp-9.3.24.v20180605.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/curator-client-2.13.0.
jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jetty-server-9.3.24.v20180605.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/audience-annotations-0.5.0.jar:/opt/hadoop-3.2.1/share/hadoop/commo
n/lib/hadoop-annotations-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jackson-jaxrs-1.9.13.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/guava-27.0-jre.jar:/opt/hadoop-3.2.1/share/ha
doop/common/lib/jersey-json-1.19.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jackson-core-asl-1.9.13.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerb-core-1.0.1.jar:/opt/hadoop-3.2.1/sh
are/hadoop/common/lib/jaxb-impl-2.2.3-1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/nimbus-jose-jwt-4.41.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/curator-recipes-2.13.0.jar:/opt/ha
doop-3.2.1/share/hadoop/common/lib/snappy-java-1.0.5.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jaxb-api-2.2.11.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerb-identity-1.0.1.jar:/opt
/hadoop-3.2.1/share/hadoop/common/lib/commons-cli-1.2.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jul-to-slf4j-1.7.25.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jsch-0.1.54.jar:/opt/ha
doop-3.2.1/share/hadoop/common/lib/kerby-xdr-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/commons-collections-3.2.2.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/commons-codec-1.11.j
adoop/common/lib/asm-5.0.4.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/dnsjava-2.1.7.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerb-client-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/com
mon/lib/kerb-server-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jackson-core-2.9.8.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/j2objc-annotations-1.1.jar:/opt/hadoop-3.2.1/share/h
adoop/common/lib/jetty-http-9.3.24.v20180605.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jsr311-api-1.1.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/checker-qual-2.5.2.jar:/opt/hadoop-
3.2.1/share/hadoop/common/lib/jetty-servlet-9.3.24.v20180605.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerby-config-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/gson-2.2.4.jar:/o
pt/hadoop-3.2.1/share/hadoop/common/lib/failureaccess-1.0.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerb-util-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/javax.servlet-api-3.1.0
op/common/lib/commons-beanutils-1.9.3.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/jetty-io-9.3.24.v20180605.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/commons-configuration2-2.1.1.jar:
/opt/hadoop-3.2.1/share/hadoop/common/lib/animal-sniffer-annotations-1.17.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/commons-text-1.4.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/json-s
mart-2.3.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerby-util-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/zookeeper-3.4.13.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/log4j-1.
2.17.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/netty-3.10.5.Final.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/listenablefuture-9999.0-empty-to-avoid-conflict-with-guava.jar:/opt/hadoo
p-3.2.1/share/hadoop/common/lib/error_prone_annotations-2.2.0.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/kerb-crypto-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/common/lib/avro-1.7.7.jar:/o
adoop-3.2.1/share/hadoop/hdfs/lib/kerby-asn1-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jackson-mapper-asl-1.9.13.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jetty-webapp-9.3.24.v201
80605.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/curator-client-2.13.0.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jetty-server-9.3.24.v20180605.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib
/jetty-util-ajax-9.3.24.v20180605.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/audience-annotations-0.5.0.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/hadoop-annotations-3.2.1.jar:/opt/hadoop
-3.2.1/share/hadoop/hdfs/lib/jackson-jaxrs-1.9.13.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/guava-27.0-jre.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jersey-json-1.19.jar:/opt/hadoop-3.2
.1/share/hadoop/hdfs/lib/jackson-core-asl-1.9.13.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/kerb-core-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/netty-all-4.0.52.Final.jar:/opt/hado
3.2.1/share/hadoop/hdfs/lib/protobuf-java-2.5.0.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/commons-compress-1.18.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jetty-util-9.3.24.v20180605.jar
:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/commons-math3-3.1.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/commons-io-2.5.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jackson-databind-2.9.8.ja
r:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/curator-framework-2.13.0.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/kerby-pkix-1.0.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/kerb-admin-1.0.1.
jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/accessors-smart-1.2.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/stax2-api-3.1.4.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/httpcore-4.4.10.jar:/
opt/hadoop-3.2.1/share/hadoop/hdfs/lib/asm-5.0.4.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/dnsjava-2.1.7.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/kerb-client-1.0.1.jar:/opt/hadoop-3.2.
jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jackson-annotations-2.9.8.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/okio-1.6.0.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/commons-lang3-3.7.ja
r:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/okhttp-2.7.5.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/paranamer-2.3.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jersey-server-1.19.jar:/opt/hado
op-3.2.1/share/hadoop/hdfs/lib/re2j-1.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/htrace-core4-4.1.0-incubating.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jersey-servlet-1.19.jar:/opt/ha
doop-3.2.1/share/hadoop/hdfs/lib/commons-logging-1.1.3.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/commons-beanutils-1.9.3.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jetty-io-9.3.24.v20180
605.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/commons-configuration2-2.1.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/animal-sniffer-annotations-1.17.jar:/opt/hadoop-3.2.1/share/hadoop/h
/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/jcip-annotations-1.0-1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/commons-net-3.6.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/kerb-common-1.0.1.jar:
/opt/hadoop-3.2.1/share/hadoop/hdfs/lib/woodstox-core-5.0.3.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-rbf-3.2.1-tests.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-nfs-3.2.1
.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-httpfs-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-native-client-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs
-client-3.2.1-tests.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-native-client-3.2.1-tests.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-3.2.1-tests.jar:/opt/hadoop-3.2.1/share
/hadoop/hdfs/hadoop-hdfs-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-rbf-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/hdfs/hadoop-hdfs-client-3.2.1.jar:/opt/hadoop-3.2.1/share/had
-3.2.1/share/hadoop/mapreduce/hadoop-mapreduce-examples-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/jersey-guice-1.19.jar:/opt/hadoop-3.2.1/share/h
adoop/yarn/lib/objenesis-1.0.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/bcprov-jdk15on-1.60.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/guice-servlet-4.0.jar:/opt/hadoop-3.2.1/share/hadoop
/yarn/lib/java-util-1.9.0.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/bcpkix-jdk15on-1.60.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/guice-4.0.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/f
st-2.50.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/ehcache-3.3.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/jackson-module-jaxb-annotations-2.9.8.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/l
ib/swagger-annotations-1.5.4.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/metrics-core-3.2.4.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/lib/javax.inject-1.jar:/opt/hadoop-3.2.1/share/hadoop/yar
.2.1/share/hadoop/yarn/hadoop-yarn-services-core-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-server-timeline-pluginstorage-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop
-yarn-server-router-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-server-common-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-server-sharedcachemanager-3.2.1.jar:/op
t/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-server-applicationhistoryservice-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-server-tests-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop
/yarn/hadoop-yarn-server-nodemanager-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-submarine-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-server-resourcemanager-3.2
.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-api-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-common-3.2.1.jar:/opt/hadoop-3.2.1/share/hadoop/yarn/hadoop-yarn-applica
2022-11-29 14:25:49,885 INFO checker.ThrottledAsyncChecker: Scheduling a check for [DISK]file:/tmp/hadoop-root/dfs/data
2022-11-29 14:25:49,957 INFO impl.MetricsConfig: Loaded properties from hadoop-metrics2.properties
2022-11-29 14:25:50,006 INFO impl.MetricsSystemImpl: Scheduled Metric snapshot period at 10 second(s).
2022-11-29 14:25:50,006 INFO impl.MetricsSystemImpl: DataNode metrics system started
2022-11-29 14:25:50,121 INFO common.Util: dfs.datanode.fileio.profiling.sampling.percentage set to 0. Disabling file IO profiling
2022-11-29 14:25:50,144 INFO datanode.DataNode: Balancing bandwidth is 10485760 bytes/s
2022-11-29 14:25:50,144 INFO datanode.DataNode: Number threads for balancing is 50
2022-11-29 14:25:50,172 INFO util.log: Logging initialized @898ms
2022-11-29 14:25:50,249 INFO server.AuthenticationFilter: Unable to initialize FileSignerSecretProvider, falling back to use random secrets.
2022-11-29 14:25:50,253 INFO http.HttpRequestLog: Http request log for http.requests.datanode is not defined
2022-11-29 14:25:50,287 INFO server.Server: jetty-9.3.24.v20180605, build timestamp: 2018-06-05T17:11:56Z, git hash: 84205aa28f11a4f31f2a3b86d1bba2cc8ab69827
2022-11-29 14:25:50,319 INFO handler.ContextHandler: Started o.e.j.s.ServletContextHandler@5038d0b5{/logs,file:///opt/hadoop-3.2.1/logs/,AVAILABLE}
2022-11-29 14:25:50,320 INFO handler.ContextHandler: Started o.e.j.s.ServletContextHandler@2ad48653{/static,file:///opt/hadoop-3.2.1/share/hadoop/hdfs/webapps/static/,AVAILABLE}
2022-11-29 14:25:50,374 INFO handler.ContextHandler: Started o.e.j.w.WebAppContext@68034211{/,file:///opt/hadoop-3.2.1/share/hadoop/hdfs/webapps/datanode/,AVAILABLE}{/datanode}
2022-11-29 14:25:50,378 INFO server.AbstractConnector: Started ServerConnector@275bf9b3{HTTP/1.1,[http/1.1]}{localhost:37653}
2022-11-29 14:25:50,584 INFO ipc.CallQueueManager: Using callQueue: class java.util.concurrent.LinkedBlockingQueue, queueCapacity: 1000, scheduler: class org.apache.hadoop.ipc.DefaultRpcSch
eduler, ipcBackoff: false.
2022-11-29 14:25:50,594 INFO ipc.Server: Starting Socket Reader #1 for port 9867
2022-11-29 14:25:50,724 INFO datanode.DataNode: Opened IPC server at /0.0.0.0:9867
2022-11-29 14:25:50,741 INFO datanode.DataNode: Refresh request received for nameservices: null
2022-11-29 14:25:50,878 INFO common.Storage: Using 1 threads to upgrade data directories (dfs.datanode.parallel.volumes.load.threads.num=1, dataDirs=1)
2022-11-29 14:25:50,883 INFO common.Storage: Lock on /tmp/hadoop-root/dfs/data/in_use.lock acquired by nodename 2005@d6af7e9fe0c4
2022-11-29 14:25:50,884 INFO common.Storage: Storage directory with location [DISK]file:/tmp/hadoop-root/dfs/data is not formatted for namespace 230238152. Formatting...
2022-11-29 14:25:50,885 INFO common.Storage: Generated new storageID DS-36db7a43-8807-40a8-a74a-c3848a996e33 for directory /tmp/hadoop-root/dfs/data
2022-11-29 14:25:50,903 INFO common.Storage: Analyzing storage directories for bpid BP-743849815-192.168.16.6-1666481079137
2022-11-29 14:25:50,907 INFO datanode.DataNode: Setting up storage: nsid=230238152;bpid=BP-743849815-192.168.16.6-1666481079137;lv=-57;nsInfo=lv=-65;cid=CID-71698876-7499-43be-b2a2-748b21e3
f7fe;nsid=230238152;c=1666481079137;bpid=BP-743849815-192.168.16.6-1666481079137;dnuuid=null
2022-11-29 14:25:50,908 INFO datanode.DataNode: Generated and persisted new Datanode UUID a601bd65-e63f-42ed-beb0-ee9a9ef5ea61
2022-11-29 14:25:50,975 INFO impl.FsDatasetImpl: Added new volume: DS-36db7a43-8807-40a8-a74a-c3848a996e33
2022-11-29 14:25:50,975 INFO impl.FsDatasetImpl: Added volume - [DISK]file:/tmp/hadoop-root/dfs/data, StorageType: DISK
2022-11-29 14:25:51,017 INFO impl.FsDatasetImpl: Time taken to scan block pool BP-743849815-192.168.16.6-1666481079137 on /tmp/hadoop-root/dfs/data: 25ms
2022-11-29 14:25:51,017 INFO impl.FsDatasetImpl: Total time to scan all replicas for block pool BP-743849815-192.168.16.6-1666481079137: 26ms
2022-11-29 14:25:51,019 INFO impl.FsDatasetImpl: Adding replicas to map for block pool BP-743849815-192.168.16.6-1666481079137 on volume /tmp/hadoop-root/dfs/data...
2022-11-29 14:25:51,020 INFO impl.BlockPoolSlice: Replica Cache file: /tmp/hadoop-root/dfs/data/current/BP-743849815-192.168.16.6-1666481079137/current/replicas doesn't exist
2022-11-29 14:25:51,022 INFO impl.FsDatasetImpl: Time to add replicas to map for block pool BP-743849815-192.168.16.6-1666481079137 on volume /tmp/hadoop-root/dfs/data: 3ms
99988 ms.
2022-11-29 14:25:51,038 INFO datanode.DirectoryScanner: Periodic Directory Tree Verification scan starting at 11/29/22 3:07 PM with interval of 21600000ms
2022-11-29 14:25:51,043 INFO datanode.DataNode: Block pool BP-743849815-192.168.16.6-1666481079137 (Datanode Uuid a601bd65-e63f-42ed-beb0-ee9a9ef5ea61) service to namenode/192.168.16.4:9000
 beginning handshake with NN
2022-11-29 14:25:51,066 INFO datanode.DataNode: Block pool Block pool BP-743849815-192.168.16.6-1666481079137 (Datanode Uuid a601bd65-e63f-42ed-beb0-ee9a9ef5ea61) service to namenode/192.16
2022-11-29 14:25:51,125 INFO datanode.DataNode: Got finalize command for block pool BP-743849815-192.168.16.6-1666481079137
2022-11-29 14:25:53,581 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741914_1090 src: /192.168.16.3:56182 dest: /192.168.16.4:9866
2022-11-29 14:25:53,602 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741914_1090 src: /192.168.16.3:56182 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:25:56,507 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741910_1086 src: /192.168.16.3:56186 dest: /192.168.16.4:9866
2022-11-29 14:25:56,508 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741825_1001 src: /192.168.16.3:56188 dest: /192.168.16.4:9866
2022-11-29 14:25:59,509 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741831_1007 src: /192.168.16.3:56192 dest: /192.168.16.4:9866 of size 13
2022-11-29 14:26:02,510 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741841_1017 src: /192.168.16.3:56194 dest: /192.168.16.4:9866
2022-11-29 14:26:02,510 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741842_1018 src: /192.168.16.3:56196 dest: /192.168.16.4:9866
2022-11-29 14:26:02,513 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741842_1018 src: /192.168.16.3:56196 dest: /192.168.16.4:9866 of size 441
2022-11-29 14:26:02,513 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741841_1017 src: /192.168.16.3:56194 dest: /192.168.16.4:9866 of size 25
2022-11-29 14:26:08,511 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741893_1069 src: /192.168.16.3:56204 dest: /192.168.16.4:9866
2022-11-29 14:26:08,513 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741892_1068 src: /192.168.16.3:56202 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:26:08,513 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741893_1069 src: /192.168.16.3:56204 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:26:11,515 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741903_1079 src: /192.168.16.3:56206 dest: /192.168.16.4:9866
2022-11-29 14:26:11,516 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741905_1081 src: /192.168.16.3:56208 dest: /192.168.16.4:9866
2022-11-29 14:26:11,517 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741903_1079 src: /192.168.16.3:56206 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:26:11,519 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741905_1081 src: /192.168.16.3:56208 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:26:14,491 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741912_1088 src: /192.168.16.3:56210 dest: /192.168.16.4:9866
2022-11-29 14:26:14,493 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741913_1089 src: /192.168.16.3:56212 dest: /192.168.16.4:9866
2022-11-29 14:26:14,495 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741913_1089 src: /192.168.16.3:56212 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:26:26,504 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741844_1020 src: /192.168.16.3:56228 dest: /192.168.16.4:9866 of size 226572
2022-11-29 14:26:29,500 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741891_1067 src: /192.168.16.3:56232 dest: /192.168.16.4:9866
2022-11-29 14:26:29,500 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741847_1023 src: /192.168.16.3:56230 dest: /192.168.16.4:9866
2022-11-29 14:26:29,501 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741891_1067 src: /192.168.16.3:56232 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:26:29,503 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741847_1023 src: /192.168.16.3:56230 dest: /192.168.16.4:9866 of size 167058
2022-11-29 14:26:32,502 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741896_1072 src: /192.168.16.3:56234 dest: /192.168.16.4:9866
2022-11-29 14:26:32,503 INFO datanode.DataNode: Receiving BP-743849815-192.168.16.6-1666481079137:blk_1073741899_1075 src: /192.168.16.3:56236 dest: /192.168.16.4:9866
2022-11-29 14:26:32,506 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741896_1072 src: /192.168.16.3:56234 dest: /192.168.16.4:9866 of size 17
2022-11-29 14:26:32,508 INFO datanode.DataNode: Received BP-743849815-192.168.16.6-1666481079137:blk_1073741899_1075 src: /192.168.16.3:56236 dest: /192.168.16.4:9866 of size 17
```



Перейдіть за адресою http://localhost:9864/datanode.html