2. Опробовать консольные утилиты для работы с кластером

3.Создаем копируем и удаляем папку

[student4_10@manager ~]$ hdfs dfs -mkdir /studenet4_10

Проверим

[student4_10@manager ~]$ hdfs dfs -ls /

Ссоздадим еще одну папку в имеющейся

Hdfs dfs -mkdir -p /studenet4_10/child_folder/finish

Hdfs dfs -ls /studenet4_10/child_folder

Исправим ошибку с именем, поменяем имя studenet4_10 на student4_10

hdfs dfs -mv /student4_10 /student4_10

Удаляем папку child_folder

Hdfs dfs -rm -r /student4_10/child_folder/

Положите в HDFS любой файл

Создам пустой файл

Hdfs dfs -touchz /student4_10/myfile.txt

Переносим myfile.txt в ACLDIR/ETC

Хотел скопировать но как я понял у меня нет на это прав

Hdfs dfs -copToLocal /student4_10/myfile.txt /etc/myfile.txt

5.Скопировать/удалить файл

```
-rw-r--r--   3 centos supergroup        111 2019-11-25 15:40 /acldir/etc/magic
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:40 /acldir/etc/mahout
-rw-r--r--   3 centos supergroup       1968 2019-11-25 15:41 /acldir/etc/mail.rc
-rw-r--r--   3 centos supergroup        272 2019-11-25 15:41 /acldir/etc/mailcap
-rw-r--r--   3 centos supergroup       5122 2019-11-25 15:41 /acldir/etc/makedumpfile.conf.sample
-rw-r--r--   3 centos supergroup       5171 2019-11-25 15:41 /acldir/etc/man_db.conf
-rw-r--r--   3 centos supergroup      51787 2019-11-25 15:41 /acldir/etc/mime.types
-rw-r--r--   3 centos supergroup        936 2019-11-25 15:41 /acldir/etc/mke2fs.conf
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/modprobe.d
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/modules-load.d
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/motd
-rw-r--r--   3 centos supergroup        570 2019-11-25 15:41 /acldir/etc/my.cnf
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/my.cnf.d
-rw-r--r--   3 centos supergroup        767 2019-11-25 15:41 /acldir/etc/netconfig
-rw-r--r--   3 centos supergroup         58 2019-11-25 15:41 /acldir/etc/networks
-rw-r--r--   3 centos supergroup        955 2019-11-25 15:41 /acldir/etc/nfs.conf
-rw-r--r--   3 centos supergroup       3390 2019-11-25 15:41 /acldir/etc/nfsmount.conf
-rw-r--r--   3 centos supergroup       1746 2019-11-25 15:41 /acldir/etc/nsswitch.conf
-rw-r--r--   3 centos supergroup       1735 2019-11-25 15:41 /acldir/etc/nsswitch.conf.bak
-rw-r--r--   3 centos supergroup       1938 2019-11-25 15:41 /acldir/etc/nsswitch.conf.rpmnew
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/openldap
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/opt
-rw-r--r--   3 centos supergroup        393 2019-11-25 15:41 /acldir/etc/os-release
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/pam.d
[student4_10@manager ~]$ hdfs dfs -ls /student4_10
Found 3 items
drwxr-xr-x   - student4_10 supergroup          0 2020-05-25 19:48 /student4_10/Malik_Moroz
drwxr-xr-x   - student4_10 supergroup          0 2020-05-25 19:57 /student4_10/child_folder
-rw-r--r--   3 student4_10 supergroup          0 2020-05-25 20:47 /student4_10/myfile.txt
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_1-/Malik_Moroz/my.cnf
copyFromLocal: `/student4_1-/Malik_Moroz/my.cnf': No such file or directory
[student4_10@manager ~]$ hdfs dfs -copyToLocal /student4_10/myfile.txt /etc/
copyToLocal: /etc/myfile.txt._COPYING_ (Permission denied)
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_1-/Malik_Moroz/
copyFromLocal: `/student4_1-/Malik_Moroz/': No such file or directory
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_1/Malik_Moroz/
copyFromLocal: `/student4_1/Malik_Moroz/': No such file or directory
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_10/Malik_Moroz/
[student4_10@manager ~]$ hdfs dfhs -ls /student4_10/Malik_Moroz/
Error: Could not find or load main class dfhs
[student4_10@manager ~]$ hdfs dfs -ls /student4_10/Malik_Moroz/
Found 1 items
-rw-r--r--   3 student4_10 supergroup        570 2020-05-25 21:11 /student4_10/Malik_Moroz/my.cnf
[student4_10@manager ~]$
```

Скопировал готовый файл с etc а также проверил
Hdfs dfs -copyFromLocal /etc/my.cnf /student4_10/Malik_Moroz

Question почему когда пишу полный путь с acldir не работает
-        Hdfs dfs -copyFromLocal /acldir/etc/my.cnf /student4_10/Malik_Moroz
А вот без acldir работает

Скопировал файл


```
-rw-r--r--   3 centos supergroup        936 2019-11-25 15:41 /acldir/etc/mke2fs.conf
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/modprobe.d
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/modules-load.d
-rw-r--r--   3 centos supergroup          0 2019-11-25 15:41 /acldir/etc/motd
-rw-r--r--   3 centos supergroup        570 2019-11-25 15:41 /acldir/etc/my.cnf
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/my.cnf.d
-rw-r--r--   3 centos supergroup        767 2019-11-25 15:41 /acldir/etc/netconfig
-rw-r--r--   3 centos supergroup         58 2019-11-25 15:41 /acldir/etc/networks
-rw-r--r--   3 centos supergroup        955 2019-11-25 15:41 /acldir/etc/nfs.conf
-rw-r--r--   3 centos supergroup       3390 2019-11-25 15:41 /acldir/etc/nfsmount.conf
-rw-r--r--   3 centos supergroup       1746 2019-11-25 15:41 /acldir/etc/nsswitch.conf
-rw-r--r--   3 centos supergroup       1735 2019-11-25 15:41 /acldir/etc/nsswitch.conf.bak
-rw-r--r--   3 centos supergroup       1938 2019-11-25 15:41 /acldir/etc/nsswitch.conf.rpmnew
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/openldap
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/opt
-rw-r--r--   3 centos supergroup        393 2019-11-25 15:41 /acldir/etc/os-release
drwxr-xr-x   - centos supergroup          0 2019-11-25 15:41 /acldir/etc/pam.d
[student4_10@manager ~]$ hdfs dfs -ls /student4_10
Found 3 items
drwxr-xr-x   - student4_10 supergroup          0 2020-05-25 19:48 /student4_10/Malik_Moroz
drwxr-xr-x   - student4_10 supergroup          0 2020-05-25 19:57 /student4_10/child_folder
-rw-r--r--   3 student4_10 supergroup          0 2020-05-25 20:47 /student4_10/myfile.txt
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_1-/Malik_Moroz/my.cnf
copyFromLocal: `/student4_1-/Malik_Moroz/my.cnf': No such file or directory
[student4_10@manager ~]$ hdfs dfs -copyToLocal /student4_10/myfile.txt /etc/
copyToLocal: /etc/myfile.txt._COPYING_ (Permission denied)
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_1-/Malik_Moroz/
copyFromLocal: `/student4_1-/Malik_Moroz/': No such file or directory
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_1/Malik_Moroz/
copyFromLocal: `/student4_1/Malik_Moroz/': No such file or directory
[student4_10@manager ~]$ hdfs dfs -copyFromLocal /etc/my.cnf /student4_10/Malik_Moroz/
[student4_10@manager ~]$ hdfs dfhs -ls /student4_10/Malik_Moroz/
Error: Could not find or load main class dfhs
[student4_10@manager ~]$ hdfs dfs -ls /student4_10/Malik_Moroz/
Found 1 items
-rw-r--r--   3 student4_10 supergroup        570 2020-05-25 21:11 /student4_10/Malik_Moroz/my.cnf
[student4_10@manager ~]$ hdfs dfs -cp /student4_10/my.cnf /student4_10/my.cnf2
cp: `/student4_10/my.cnf': No such file or directory
[student4_10@manager ~]$ hdfs dfs -cp /student4_10/Malik_Moroz/my.cnf /student4_10/Malik_Moroz/my.cnf_2
[student4_10@manager ~]$ hdfs dfs -ls /student4_10/Malik_Moroz/
Found 2 items
-rw-r--r--   3 student4_10 supergroup        570 2020-05-25 21:11 /student4_10/Malik_Moroz/my.cnf
-rw-r--r--   3 student4_10 supergroup        570 2020-05-25 21:20 /student4_10/Malik_Moroz/my.cnf_2
[student4_10@manager ~]$
```
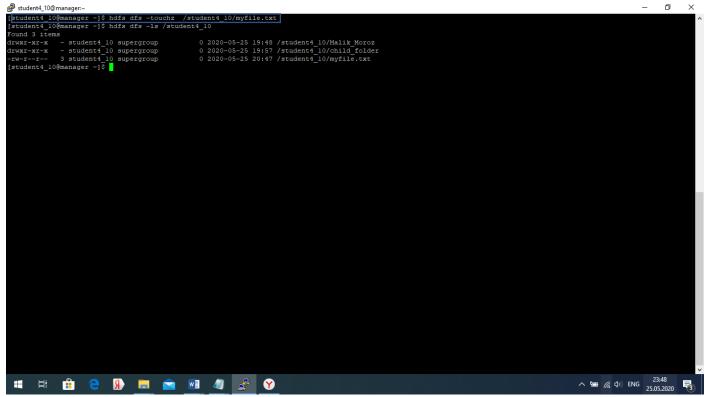
Hdfs dfs -cp /student4_10/Malik_Moroz/my.cnf /student4_10/Malik_Moroz/my.cnf_2

Удалил два файла my.cnf и my.cnf_2

Hdf dfs -rm /student4_10/Malik_Moroz/my.cnf

6.Посмотреть размер любой папки

hdfs dfs -du -h -s /acldir/etc

7.Посмотреть как Файл хранится на файловой сисмеме (см. команду fsck)


```
[student4_10@manager ~]$ hdfs fsck /student4_10
Connecting to namenode via http://manager.novalocal:50070/fsck?ugi=student4_10&path=%2Fstudent4_10
FSCK started by student4_10 (auth:SIMPLE) from /89.208.221.132 for path /student4_10 at Mon May 25 22:00:50 UTC 2020
.Status: HEALTHY
 Total size:    0 B
 Total dirs:    4
 Total files:   1
 Total symlinks:              0
 Total blocks (validated):    0
 Minimally replicated blocks: 0
 Over-replicated blocks:      0
 Under-replicated blocks:     0
 Mis-replicated blocks:       0
 Default replication factor:  3
 Average block replication:   0.0
 Corrupt blocks:              0
 Missing replicas:            0
 Number of data-nodes:        3
 Number of racks:             1
FSCK ended at Mon May 25 22:00:50 UTC 2020 in 1 milliseconds


The filesystem under path '/student4_10' is HEALTHY
[student4_10@manager ~]$
```
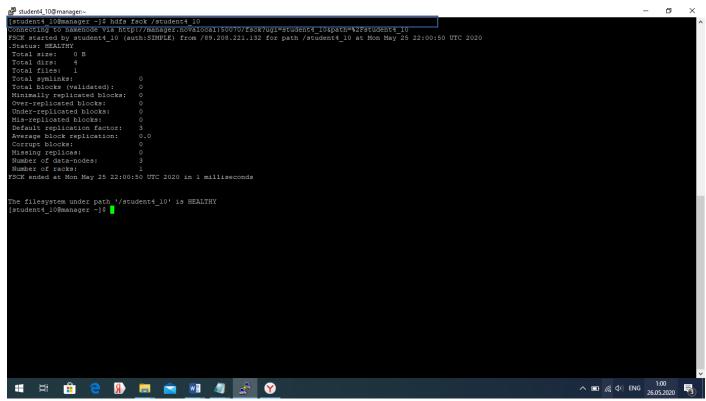
Hdfs dfs fsck /student4_10

8.Установить нестандартный фактор репликации (см. команду setrep)


```
[student4_10@manager ~]$ hdfs dfs -ls /student4_10/
Found 3 items
drwxr-xr-x   - student4_10 supergroup          0 2020-05-25 21:52 /student4_10/Malik_Moroz
drwxr-xr-x   - student4_10 supergroup          0 2020-05-25 19:57 /student4_10/child_folder
-rw-r--r--   3 student4_10 supergroup          0 2020-05-25 20:47 /student4_10/myfile.txt
[student4_10@manager ~]$ hdfs dfs -setrep -R -w 6 /student4_10/myfile.txt/
Replication 6 set: /student4_10/myfile.txt
Waiting for /student4_10/myfile.txt ... done
[student4_10@manager ~]$
```

Hdfs dfs -setrep -R -w 6 /student4_10/myfile.txt

Перевёл с 3 до 6 репликацией

9.Опробовать rest-доступ для работы с кластером

10. Используя утилиты CURL

11. Используя python3 и библиотеки request
Возникли проблемы с библиотеками, если можно то я настрою библиотеки и потом еще раз вышлю