1） 向 HDFS 中上传任意文本文件，如果指定的文件在 HDFS 中已经存在，由用户指定是追加到原有文件末尾还是覆盖原有的文件

开启hadoop服务：

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ ./sbin/start-dfs.sh
Starting namenodes on [localhost]
Starting datanodes
Starting secondary namenodes [aind-VirtualBox]
hadoop@aind-VirtualBox:/usr/local/hadoop$
```

创建两个文档用于实验

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ echo "hello world" > local.txt
hadoop@aind-VirtualBox:/usr/local/hadoop$ echo "hello hadoop" > cloud.txt
```

上传cloud.txt文档

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -put cloud.txt
2020-04-30 10:10:14,000 INFO sasl.SaslDataTransferClient: SASL encryption
 trust check: localHostTrusted = false, remoteHostTrusted = false
```

将local.txt内容追加到cloud.txt末尾

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -cat cloud.txt
2020-04-30 10:10:49,513 INFO sasl.SaslDataTransferClient: SASL encryption
 trust check: localHostTrusted = false, remoteHostTrusted = false
hello hadoop
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -appendToFile local.t
xt cloud.txt
2020-04-30 10:11:49,327 INFO sasl.SaslDataTransferClient: SASL encryption
 trust check: localHostTrusted = false, remoteHostTrusted = false
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -cat cloud.txt
2020-04-30 10:12:12,053 INFO sasl.SaslDataTransferClient: SASL encryption
 trust check: localHostTrusted = false, remoteHostTrusted = false
hello hadoop
```

将local.txt内容覆盖到cloud.txt

```
hadoop fs -copyFromLocal local.txt cloud.txt
```

2） 从 HDFS 中下载指定文件，如果本地文件与要下载的文件名称相同，则自动对下载的文件重命名

```
if $(hadoop fs -test -e /usr/local/hadoop/cloud/txt);
then $(hadoop fs -copyToLocal cloud.txt ./cloud.txt);
else $(hadoop fs -copyToLocal cloud.txt ./cloud2.txt);
fi
```

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ if $(hadoop fs -test -e /usr/lo
cal/hadoop/cloud.txt);
> then $(hadoop fs -copyToLocal cloud.txt ./cloud.txt);
> else $(hadoop fs -copyToLocal cloud.txt ./cloud2.txt);
> fi
2020-04-30 10:32:01,852 INFO sasl.SaslDataTransferClient: SASL encryption
 trust check: localHostTrusted = false, remoteHostTrusted = false
hadoop@aind-VirtualBox:/usr/local/hadoop$ ls
bin          etc      libexec      logs         README.txt  test
cloud2.txt   include  LICENSE.txt  NOTICE.txt   sbin        tmp
cloud.txt    lib      local.txt    output       share
hadoop@aind-VirtualBox:/usr/local/hadoop$
```

3） 将 HDFS 中指定文件的内容输出到终端中

```
hadoop fs -cat cloud.txt
```

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -cat cloud.txt
2020-04-30 10:33:36,810 INFO sasl.SaslDataTransferClient: SASL encryption
 trust check: localHostTrusted = false, remoteHostTrusted = false
hello hadoop
hello world
hadoop@aind-VirtualBox:/usr/local/hadoop$
```

4） 显示 HDFS 中指定的文件的读写权限、大小、创建时间、路径等信息

```
hadoop fs -ls -h cloud.txt
```

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -ls -h cloud.txt
-rw-r--r--   1 hadoop supergroup         25 2020-04-30 10:11 cloud.txt
hadoop@aind-VirtualBox:/usr/local/hadoop$
```

5） 给定 HDFS 中某一个目录，输出该目录下的所有文件的读写权限、大小、创建时间、路径等信息，如果该文件是目录，则递归输出该目录下所有文件相关信息

```
hadoop fs -lsr -h /
```

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -lsr -h /
lsr: DEPRECATED: Please use 'ls -R' instead.
drwxr-xr-x   - hadoop supergroup          0 2020-04-23 11:30 /user
drwxr-xr-x   - hadoop supergroup          0 2020-04-30 10:10 /user/hadoop
-rw-r--r--   1 hadoop supergroup         25 2020-04-30 10:11 /user/hadoop
/cloud.txt
drwxr-xr-x   - hadoop supergroup          0 2020-04-23 11:31 /user/hadoop
/input
-rw-r--r--   1 hadoop supergroup      8.1 K 2020-04-23 11:31 /user/hadoop
/input/capacity-scheduler.xml
-rw-r--r--   1 hadoop supergroup      1.0 K 2020-04-23 11:31 /user/hadoop
/input/core-site.xml
-rw-r--r--   1 hadoop supergroup     11.1 K 2020-04-23 11:31 /user/hadoop
/input/hadoop-policy.xml
-rw-r--r--   1 hadoop supergroup      1.1 K 2020-04-23 11:31 /user/hadoop
/input/hdfs-site.xml
-rw-r--r--   1 hadoop supergroup        620 2020-04-23 11:31 /user/hadoop
/input/httpfs-site.xml
-rw-r--r--   1 hadoop supergroup      3.4 K 2020-04-23 11:31 /user/hadoop
/input/kms-acls.xml
-rw-r--r--   1 hadoop supergroup        682 2020-04-23 11:31 /user/hadoop
/input/kms-site.xml
-rw-r--r--   1 hadoop supergroup        758 2020-04-23 11:31 /user/hadoop
/input/mapred-site.xml
-rw-r--r--   1 hadoop supergroup        690 2020-04-23 11:31 /user/hadoop
/input/yarn-site.xml
drwxr-xr-x   - hadoop supergroup          0 2020-04-28 15:29 /user/hadoop
/test
-rw-r--r--   1 hadoop supergroup      3.8 K 2020-04-28 15:29 /user/hadoop
/test/.bashrc
```

6） 提供一个 HDFS 内的文件的路径，对该文件进行创建和删除操作。如果文件所在目录不存在，则自动创建目录

```
hadoop fs -touch /test/test.txt //所在目录不存在时，创建新的空白文件
hadoop fs -rm -R /test/test.txt //删除文件
```

7） 提供一个 HDFS 的目录的路径，对该目录进行创建和删除操作。创建目录时，如果目录文件所在目录不存在则自动创建相应目录；删除目录时，由用户指定当该目录不为空时是否还删除该目录；

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -mkdir -p file1/file2
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -touchz file1/file2/test.txt
hadoop@aind-VirtualBox:/usr/local/hadoop$ ls
bin         etc      libexec      logs         README.txt  test
cloud2.txt  include  LICENSE.txt  NOTICE.txt   sbin        tmp
cloud.txt   lib      local.txt    output       share
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -rm -r file1/file2
Deleted file1/file2
hadoop@aind-VirtualBox:/usr/local/hadoop$
```

```
hadoop fs -mkdir -p file1/file2
hadoop fs -touchz file1/file2/test.txt
hadoop fs -rm -r file1/file2
```

8） 向 HDFS 中指定的文件追加内容，由用户指定内容追加到原有文件的开头或结尾；

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -appendTofile local.txt clou
d.txt
-appendTofile: Unknown command
Usage: hadoop fs [generic options]
        [-appendToFile <localsrc> ... <dst>]
        [-cat [-ignoreCrc] <src> ...]
        [-checksum <src> ...]
        [-chgrp [-R] GROUP PATH...]
        [-chmod [-R] <MODE[,MODE]... | OCTALMODE> PATH...]
        [-chown [-R] [OWNER][:[GROUP]] PATH...]
        [-copyFromLocal [-f] [-p] [-l] [-d] [-t <thread count>] <localsrc> ... <
dst>]
        [-copyToLocal [-f] [-p] [-ignoreCrc] [-crc] <src> ... <localdst>]
        [-count [-q] [-h] [-v] [-t [<storage type>]] [-u] [-x] [-e] <path> ...]
        [-cp [-f] [-p | -p[topax]] [-d] <src> ... <dst>]
        [-createSnapshot <snapshotDir> [<snapshotName>]]
        [-deleteSnapshot <snapshotDir> <snapshotName>]
        [-df [-h] [<path> ...]]
        [-du [-s] [-h] [-v] [-x] <path> ...]
        [-expunge]
        [-find <path> ... <expression> ...]
        [-get [-f] [-p] [-ignoreCrc] [-crc] <src> ... <localdst>]
        [-getfacl [-R] <path>]
        [-getfattr [-R] {-n name | -d} [-e en] <path>]
        [-getmerge [-nl] [-skip-empty-file] <src> <localdst>]
        [-head <file>]
```

https://blog.csdn.net/qq_43201710

```
hadoop fs -appendTofile local.txt cloud.txt //将本地local.txt的内容添加到cloud.txt的末尾
```

9） 删除 HDFS 中指定的文件；

```
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -rm ./local.txt
rm: `./local.txt': No such file or directory
hadoop@aind-VirtualBox:/usr/local/hadoop$ hadoop fs -rm ./cloud.txt
Deleted cloud.txt
hadoop@aind-VirtualBox:/usr/local/hadoop$
```

```
hadoop fs -rm ./cloud.txt //注意是删除HDFS中文件，本地的local.txt文件无法删除，会出现如图找不到此文件错误
```

10） 删除 HDFS 中指定的目录，由用户指定目录中如果存在文件时是否删除目录；

```
hadoop fs -rmr file1/file2
```

11） 在 HDFS 中，将文件从源路径移动到目的路径。

```
hadoop fs -mv /usr/local/hadoop/from.txt /usr/local/hadoop/to.txt
```