# HDFS 实验

# HDFS 命令

# Shell 命令

- HDFS的命令行格式：hadoop fs –cmd *<args>*
  - cmd：具体的指令内容
  - *<args>*：一系列可变的参数

| 命令 |
|---|
| cat |
| chmod |
| chown |
| copyFromLocal |
| copyToLocal |
| cp |
| get |
| ls |
| mkdir |
| moveFromLocal |
| mv |
| put |
| rm |
| tail |

# 文件目录查询

- HDFS 命令：ls

- 命令说明：查询HDFS分布式文件系统的文件和子目录

- 命令实例： hadoop fs –ls /

```
[fangcheng@Master ~]$ hadoop fs -ls /
Found 2 items
drwxrwxrwt   - hdfs supergroup          0 2015-12-11 14:59 /tmp
drwxr-xr-x   - hdfs supergroup          0 2015-12-08 14:24 /user
```

# 创建目录

- HDFS 命令：mkdir

- 命令说明：在HDFS分布式文件系统的指定位置创建目录

- 命令实例： hadoop fs –mkdir /user/fangcheng/test

# 上传文件到HDFS

- HDFS 命令：put

- 命令说明：将文件或目录从本地文件系统移动复制到HDFS上

- 命令实例： hadoop fs –put /home/fangcheng/word.txt   /user/fangcheng/test

```
[fangcheng@Master ~]$ ls
word.txt
[fangcheng@Master ~]$ hadoop fs -put /home/fangcheng/word.txt /user/fangcheng/test
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/test
Found 1 items
-rw-r--r--   3 fangcheng fangcheng        85 2015-12-11 15:11 /user/fangcheng/test/word.txt
```

# 从HDFS复制文件到本地

- HDFS 命令：get

- 命令说明：从HDFS分布式文件系统复制文件到本地文件系统

- 命令实例： hadoop fs –get /user/fangcheng/test/word.txt   /home/fangcheng/word1.txt

```
[fangcheng@Master ~]$ ls
word.txt
[fangcheng@Master ~]$ hadoop fs -get /user/fangcheng/test/word.txt /home/fangcheng/word1.txt
[fangcheng@Master ~]$ ls
word1.txt  word.txt
[fangcheng@Master ~]$
```

# 复制HDFS上的文件

- HDFS 命令：cp

- 命令说明：从HDFS分布式文件系统上复制文件或目录到指定目录

- 命令实例： hadoop fs –cp /user/fangcheng/test/word.txt   /user/fangcheng/

```
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/
Found 2 items
drwx------   - fangcheng fangcheng          0 2015-12-11 15:06 /user/fangcheng/.Trash
drwxr-xr-x   - fangcheng fangcheng          0 2015-12-11 15:11 /user/fangcheng/test
[fangcheng@Master ~]$ hadoop fs -cp /user/fangcheng/test/word.txt /user/fangcheng
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/
Found 3 items
drwx------   - fangcheng fangcheng          0 2015-12-11 15:06 /user/fangcheng/.Trash
drwxr-xr-x   - fangcheng fangcheng          0 2015-12-11 15:11 /user/fangcheng/test
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:18 /user/fangcheng/word.txt
[fangcheng@Master ~]$ 
```

# 移动HDFS上的文件

- HDFS 命令：mv

- 命令说明：将HDFS分布式文件系统上的文件或目录从源路径移动到目的路径

- 命令实例： hadoop fs –mv /user/fangcheng/word.txt   /user/fangcheng/test/word1.txt

```
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/test
Found 1 items
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:11 /user/fangcheng/test/word.txt
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/
Found 3 items
drwx------   - fangcheng fangcheng          0 2015-12-11 15:06 /user/fangcheng/.Trash
drwxr-xr-x   - fangcheng fangcheng          0 2015-12-11 15:40 /user/fangcheng/test
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:41 /user/fangcheng/word.txt
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/test
Found 1 items
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:11 /user/fangcheng/test/word.txt
[fangcheng@Master ~]$ hadoop fs -mv /user/fangcheng/word.txt /user/fangcheng/test/word1.txt
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/test
Found 2 items
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:11 /user/fangcheng/test/word.txt
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:41 /user/fangcheng/test/word1.txt
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/
Found 2 items
drwx------   - fangcheng fangcheng          0 2015-12-11 15:06 /user/fangcheng/.Trash
drwxr-xr-x   - fangcheng fangcheng          0 2015-12-11 15:42 /user/fangcheng/test
[fangcheng@Master ~]$
```

# 删除HDFS上的文件

- HDFS 命令：rm

- 命令说明：删除HDFS分布式文件系统上的文件或空目录

- 命令实例： hadoop fs –rm  /user/fangcheng/test/word1.txt

```
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/test/
Found 2 items
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:11 /user/fangcheng/test/word.txt
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:41 /user/fangcheng/test/word1.txt
[fangcheng@Master ~]$ hadoop fs -rm /user/fangcheng/test/word1.txt
15/12/11 15:45:27 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 1440 minutes, Emptier interval = 0 minutes.
Moved: 'hdfs://Master:8020/user/fangcheng/test/word1.txt' to trash at: hdfs://Master:8020/user/fangcheng/.Trash/Current
[fangcheng@Master ~]$ hadoop fs -ls /user/fangcheng/test/
Found 1 items
-rw-r--r--   3 fangcheng fangcheng         85 2015-12-11 15:11 /user/fangcheng/test/word.txt
[fangcheng@Master ~]$
```

# 显示HDFS上的文件内容

- HDFS 命令：cat

- 命令说明：显示HDFS分布式文件系统上的非压缩文件的内容

- 命令实例： hadoop fs –cat   /user/fangcheng/test/word.txt

```
[fangcheng@Master ~]$ hadoop fs -cat /user/fangcheng/test/word.txt
hello world
word count
hello hello
how are you
thank you
hadoop
map reduce
big data
```

# 显示HDFS上的文件尾部内容

- HDFS 命令：tail

- 命令说明：显示HDFS分布式文件系统上文件的最后1kb数据内容

- 命令实例： hadoop fs –tail  /user/fangcheng/test/word.txt

```
[fangcheng@Master ~]$ hadoop fs -tail /user/fangcheng/test/word.txt
hello world
word count
hello hello
how are you
thank you
hadoop
map reduce
big data
```