

(1) Directory Operation

```
houxiyan@houxiyan-virtual-machine:~$ pwd
/home/houxiyan
houxiyan@houxiyan-virtual-machine:~$ cd ~
houxiyan@houxiyan-virtual-machine:~$ mkdir B22040718
houxiyan@houxiyan-virtual-machine:~$ cd B22040718
houxiyan@houxiyan-virtual-machine:~/B22040718$ ls
houxiyan@houxiyan-virtual-machine:~/B22040718$ rmdir B22040718
rmdir: 删除 'B22040718' 失败: 没有那个文件或目录
houxiyan@houxiyan-virtual-machine:~/B22040718$ mkdir 侯熙岩
houxiyan@houxiyan-virtual-machine:~/B22040718$ ls
侯熙岩
houxiyan@houxiyan-virtual-machine:~/B22040718$ rmdir 侯熙岩
houxiyan@houxiyan-virtual-machine:~/B22040718$ ls
houxiyan@houxiyan-virtual-machine:~/B22040718$
```

(2) File operation

```
houxiyan@houxiyan-virtual-machine:~/B22040718$ cd ~
houxiyan@houxiyan-virtual-machine:~$ touch 侯熙岩.txt
houxiyan@houxiyan-virtual-machine:~$ ls
公共的 侯熙岩.txt 模板 视频 图片 文档 下载 音乐 桌面 B22040718 snap
houxiyan@houxiyan-virtual-machine:~$ echo "hello world" > 侯熙岩.txt
houxiyan@houxiyan-virtual-machine:~$ cat 侯熙岩.txt
hello world
houxiyan@houxiyan-virtual-machine:~$ cp 侯熙岩.txt 侯熙岩2.txt
houxiyan@houxiyan-virtual-machine:~$ mv 侯熙岩.txt B22040718.txt
houxiyan@houxiyan-virtual-machine:~$ ls
公共的 侯熙岩2.txt 模板 视频 图片 文档 下载 音乐 桌面 B22040718 B22040718.txt snap
houxiyan@houxiyan-virtual-machine:~$
```

(3) User Management

```
houxiyan@houxiyan-virtual-machine:~/B22040718$ cd ~
houxiyan@houxiyan-virtual-machine:~$ touch 侯熙岩.txt
houxiyan@houxiyan-virtual-machine:~$ ls
公共的 侯熙岩.txt 模板 视频 图片 文档 下载 音乐 桌面 B22040718 snap
houxiyan@houxiyan-virtual-machine:~$ echo "hello world" > 侯熙岩.txt
houxiyan@houxiyan-virtual-machine:~$ cat 侯熙岩.txt
hello world
houxiyan@houxiyan-virtual-machine:~$ cp 侯熙岩.txt 侯熙岩2.txt
houxiyan@houxiyan-virtual-machine:~$ mv 侯熙岩.txt B22040718.txt
houxiyan@houxiyan-virtual-machine:~$ ls
公共的 侯熙岩2.txt 模板 视频 图片 文档 下载 音乐 桌面 B22040718 B22040718.txt snap
houxiyan@houxiyan-virtual-machine:~$
```

(4) Permission management

```
houxiyan@houxiyan-virtual-machine:~$ chmod 777 demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-rwxrwxrwx 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```

```
houxiyan@houxiyan-virtual-machine:~$ chmod a-x demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-rw-rw-rw- 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```



```
houxiyan@houxiyan-virtual-machine:~$ chmod go-w demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-rw-r--r-- 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```

```
houxiyan@houxiyan-virtual-machine:~$ chmod g+w demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-rw-rw-r-- 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```

```
houxiyan@houxiyan-virtual-machine:~$ chmod a= demo
houxiyan@houxiyan-virtual-machine:~$ ls-l
ls-l: 未找到命令
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
----- 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```

```
houxiyan@houxiyan-virtual-machine:~$ chmod +t demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-----T 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```



```
houxiyan@houxiyan-virtual-machine:~$ chmod u+s demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
---S-----T 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```

```
houxiyan@houxiyan-virtual-machine:~$ chmod u+rx demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 48
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-r-s-----T 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```

```
houxiyan@houxiyan-virtual-machine:~$ chmod g+rws demo
houxiyan@houxiyan-virtual-machine:~$ ls -l
```

总计 48

drwxr-xr-x	3	houxiyan	houxiyan	4096	10月	12	10:44	公共的
-rw-rw-r--	1	houxiyan	houxiyan	12	10月	14	10:03	侯熙岩2.txt
drwxr-xr-x	2	houxiyan	houxiyan	4096	6月	18	09:10	模板
drwxr-xr-x	2	houxiyan	houxiyan	4096	6月	18	08:58	视频
drwxr-xr-x	2	houxiyan	houxiyan	4096	6月	18	08:58	图片
drwxr-xr-x	3	houxiyan	houxiyan	4096	6月	18	09:17	文档
drwxr-xr-x	2	houxiyan	houxiyan	4096	9月	23	10:02	下载
drwxr-xr-x	2	houxiyan	houxiyan	4096	6月	18	08:58	音乐
drwxr-xr-x	2	houxiyan	houxiyan	4096	10月	14	09:55	桌面
drwxrwxr-x	2	houxiyan	houxiyan	4096	10月	14	09:59	B22040718
-rw-rw-r--	1	houxiyan	houxiyan	12	10月	14	10:02	B22040718.txt
-r-srwS--T	1	houxiyan	houxiyan	0	10月	14	10:33	demo
drwx-----	5	houxiyan	houxiyan	4096	6月	18	09:04	snap

(5) Other management

```
houxiyan@houxiyan-virtual-machine:~$ tar -czvf backup.tar.gz others
others/
others/backup.tar.gz
others/b22040718
others/b22040718.tar.gz
others/B22040718
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 56
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-rw-rw-r-- 1 houxiyan houxiyan 280 10月 14 10:55 backup.tar.gz
-r-srws--T 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 10:55 others
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```



```
houxiyan@houxiyan-virtual-machine:~$ tar -xzvf backup.tar.gz
others/
others/backup.tar.gz
others/b22040718
others/b22040718.tar.gz
others/B22040718
houxiyan@houxiyan-virtual-machine:~$ ls -l
总计 56
drwxr-xr-x 3 houxiyan houxiyan 4096 10月 12 10:44 公共的
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:03 侯熙岩2.txt
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 09:10 模板
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 视频
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 图片
drwxr-xr-x 3 houxiyan houxiyan 4096 6月 18 09:17 文档
drwxr-xr-x 2 houxiyan houxiyan 4096 9月 23 10:02 下载
drwxr-xr-x 2 houxiyan houxiyan 4096 6月 18 08:58 音乐
drwxr-xr-x 2 houxiyan houxiyan 4096 10月 14 09:55 桌面
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 09:59 B22040718
-rw-rw-r-- 1 houxiyan houxiyan 12 10月 14 10:02 B22040718.txt
-rw-rw-r-- 1 houxiyan houxiyan 280 10月 14 10:55 backup.tar.gz
-r-srwS--T 1 houxiyan houxiyan 0 10月 14 10:33 demo
drwxrwxr-x 2 houxiyan houxiyan 4096 10月 14 10:55 others
drwx----- 5 houxiyan houxiyan 4096 6月 18 09:04 snap
```

```
houxiyan@houxiyan-virtual-machine:~$ grep '^n' B22040718.txt
no, I study in njupt.
houxiyan@houxiyan-virtual-machine:~$ grep '\.00$' B22040718.txt
this line ends with .00
He is 15. It is 16.00
houxiyan@houxiyan-virtual-machine:~$ grep '5\.. ' B22040718.txt
He is 15. It is 16.00
houxiyan@houxiyan-virtual-machine:~$ grep '^[wy]' B22040718.txt
wy is the short of my name.
houxiyan@houxiyan-virtual-machine:~$ grep '^[wy]' B22040718.txt
wy is the short of my name.
```