（1）Directory Operation

(2) File operation

(3)User Management

```
songzihan@songzihan-virtual-machine:~$ whoami
songzihan
songzihan@songzihan-virtual-machine:~$ sudo su root
[sudo] songzihan 的密码:
root@songzihan-virtual-machine:/home/songzihan# groupadd student
root@songzihan-virtual-machine:/home/songzihan# whoami
root
root@songzihan-virtual-machine:/home/songzihan# adduser b22040714
正在添加用户"b22040714"...
正在添加新组"b22040714" (1002)...
正在添加新用户"b22040714" (1001) 到组"b22040714"...
创建主目录"/home/b22040714"...
正在从"/etc/skel"复制文件...
新的密码:
重新输入新的密码:
passwd: 已成功更新密码
正在改变 b22040714 的用户信息
请输入新值，或直接敲回车键以使用默认值
        全名 []:
        房间号码 []:
        工作电话 []:
        家庭电话 []:
        其它 []:
这些信息是否正确？ [Y/n] y
root@songzihan-virtual-machine:/home/songzihan# usermod -g student b22040714
root@songzihan-virtual-machine:/home/songzihan# su b22040714
b22040714@songzihan-virtual-machine:/home/songzihan$ cd ~
b22040714@songzihan-virtual-machine:~$ touch songzihan.txt
b22040714@songzihan-virtual-machine:~$ ls -l
总计 0
```

```
b22040714@songzihan-virtual-machine:~$ ls -l
总计 0
-rw-r--r-- 1 b22040714 student 0 12月  9 18:15 songzihan.txt
```

(4) Permission management

```
b22040714@songzihan-virtual-machine:~$ touch demo
b22040714@songzihan-virtual-machine:~$ chmod 777 demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
-rwxrwxrwx 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod a-x demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
-rw-rw-rw- 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod go-w demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
-rw-r--r-- 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod g+w demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
-rw-rw-r-- 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod a= demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
---------- 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod +t demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
---------T 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod u+s demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
---S-----T 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod u+rx demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
-r-s-----T 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$ chmod g+rws demo
b22040714@songzihan-virtual-machine:~$ ls -l demo
-r-srwS--T 1 b22040714 student 0 12月 10 14:09 demo
b22040714@songzihan-virtual-machine:~$
```

(5) Other management

```
songzihan@songzihan-virtual-machine:~$ tar -xzvf backup.tar.gz
others/
others/any.txt
others/ok
songzihan@songzihan-virtual-machine:~$ ls -l
总计 64
drwxr-xr-x 2 songzihan songzihan 4096  5月 16  2024 公共的
drwxr-xr-x 2 songzihan songzihan 4096  5月 16  2024 模板
drwxr-xr-x 2 songzihan songzihan 4096  5月 16  2024 视频
drwxr-xr-x 2 songzihan songzihan 4096  5月 16  2024 图片
drwxr-xr-x 2 songzihan songzihan 4096  5月 19  2024 文档
drwxr-xr-x 2 songzihan songzihan 4096  5月 17  2024 下载
drwxr-xr-x 2 songzihan songzihan 4096  5月 16  2024 音乐
drwxr-xr-x 2 songzihan songzihan 4096  5月 19  2024 桌面
drwxrwxr-x 2 songzihan songzihan 4096 12月  9 17:53 b22040714
-rw-rw-r-- 1 songzihan songzihan   12 12月  9 17:59 b22040714.txt
-rw-rw-r-- 1 songzihan songzihan  168 12月  9 18:46 backup.tar.gz
drwxrwxr-x 2 songzihan songzihan 4096 12月  9 18:40 others
drwx------ 5 songzihan songzihan 4096  5月 19  2024 snap
-rw-rw-r-- 1 songzihan songzihan   12 12月  9 18:00 songzihan2.txt
-rw-rw-r-- 1 songzihan songzihan  138 12月  9 18:45 textfile
drwxrwxr-x 2 songzihan songzihan 4096 12月  9 17:48 your_studentID
songzihan@songzihan-virtual-machine:~$
```

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