### (1) Directory Operation

```
songzihan@songzihan-virtual-machine:~/泉面$ pwd
/home/songzihan/桌面
songzihan@songzihan-virtual-machine:~/桌面$ cd ~
songzihan@songzihan-virtual-machine:~/桌面$ cd ~
songzihan@songzihan-virtual-machine:~$ mkdir b22040714
songzihan@songzihan-virtual-machine:~$ cd b22040714
songzihan@songzihan-virtual-machine:~$ b22040714$ mkdir songzihan
songzihan@songzihan-virtual-machine:~b22040714$ ls
songzihan@songzihan-virtual-machine:~b22040714$ rmdir songzihan
songzihan@songzihan-virtual-machine:~b22040714$ ls
songzihan@songzihan-virtual-machine:~b22040714$ ls
songzihan@songzihan-virtual-machine:~b22040714$
```

#### (2) File operation

```
songzihan@songzihan-virtual-machine:~/b22040714$ cd ~
songzihan@songzihan-virtual-machine:~$ touch songzihan.txt
songzihan@songzihan-virtual-machine:~$ ls
公共的 视频 文档 音乐 b22040714 songzihan.txt
模板 图片 下载 桌面 snap your_studentID
songzihan@songzihan-virtual-machine:~$ echo "hello world" > songzihan.txt
songzihan@songzihan-virtual-machine:~$ cat songzihan.txt
hello world
songzihan@songzihan-virtual-machine:~$ cp songzihan.txt songzihan2.txt
songzihan@songzihan-virtual-machine:~$ mv songzihan.txt b22040714.txt
songzihan@songzihan-virtual-machine:~$ ls
公共的 视频 文档 音乐 b22040714 snap your_studentID
模板 图片 下载 桌面 b22040714.txt songzihan2.txt
songzihan@songzihan-virtual-machine:~$
```

## (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: ~
                                                          Q ≡
p22040714@songzihan-virtual-machine:-$ touch demo
222040714@songzihan-virtual-machine:~$ chmod 777 demo
o22040714@songzihan-virtual-machine:~$ ls -l demo
-rwxrwxrwx 1 b22040714 student 0 12月 10 14:09 demo
222040714@songzihan-virtual-machine:-S chmod a-x demo
o22040714@songzihan-virtual-machine:~$ ls -l demo
-rw-rw-rw- 1 b22040714 student 0 12月 10 14:09 demo
222040714@songzihan-virtual-machine:-$ chmod go-w demo
o22040714@songzihan-virtual-machine:-$ ls -l demo
-rw-r--r-- 1 b22040714 student 0 12月 10 14:09 demo
222040714@songzihan-virtual-machine:~$ chmod g+w demo
o22040714@songzihan-virtual-machine:-$ ls -l demo
-rw-rw-r-- 1 b22040714 student 0 12月 10 14:09 demo
222040714@songzihan-virtual-machine:~$ chmod a= demo
o22040714@songzihan-virtual-machine:~$ ls -l demo
----- 1 b22040714 student 0 12月 10 14:09 demo
222040714@songzihan-virtual-machine:-$ chmod +t demo
o22040714@songzihan-virtual-machine:~$ ls -l demo
-----T 1 b22040714 student 0 12月 10 14:09 demo
222040714@songzihan-virtual-machine:~$ chmod u+s demo
p22040714@songzihan-virtual-machine:-$ ls -l demo
--S----T 1 b22040714 student 0 12月 10 14:09 demo
p22040714@songzihan-virtual-machine:~$ chmod u+rx demo
o22040714@songzihan-virtual-machine:~$ ls -l demo
-r-s----T 1 b22040714 student 0 12月 10 14:09 <mark>demo</mark>
222040714@songzihan-virtual-machine:~$ chmod g+rws demo
o22040714@songzihan-virtual-machine:~$ ls -l demo
-r-srwS--T 1 b22040714 student 0 12月 10 14:09 demo
o22040714@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 🔡片
drwxr-xr-x 2 songzihan songzihan 4096 5月 19 2024 文楷
drwxr-xr-x 2 songzihan songzihan 4096 5月 17 2024 下載
drwxr-xr-x 2 songzihan songzihan 4096 5月 16 2024 晋振
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
```

```
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:-$
```