

1. Experiment Step

(1) Directory Operatio

```
zhangyumeng@zhangyumeng-virtual-machine:~$ pwd
/home/zhangyumeng
zhangyumeng@zhangyumeng-virtual-machine:~$ cd
zhangyumeng@zhangyumeng-virtual-machine:~$ mkdir B22040615
zhangyumeng@zhangyumeng-virtual-machine:~$ cd B22040615
zhangyumeng@zhangyumeng-virtual-machine:~/B22040615$ mkdir 张雨蒙
zhangyumeng@zhangyumeng-virtual-machine:~/B22040615$ ls
张雨蒙
zhangyumeng@zhangyumeng-virtual-machine:~/B22040615$ rmdir 张雨蒙
zhangyumeng@zhangyumeng-virtual-machine:~/B22040615$ ls
zhangyumeng@zhangyumeng-virtual-machine:~/B22040615$
```

(2) File operation

```
zhangyumeng@zhangyumeng-virtual-machine:~$ cd
zhangyumeng@zhangyumeng-virtual-machine:~$ touch 张雨蒙.txt
zhangyumeng@zhangyumeng-virtual-machine:~$ ls
公共的 模板 视频 图片 文档 下载 音乐 张雨蒙.txt 桌面 B22040615 snap
zhangyumeng@zhangyumeng-virtual-machine:~$ echo "你好 world" > 张雨蒙.txt
zhangyumeng@zhangyumeng-virtual-machine:~$ cat 张雨蒙.txt
你好 world
zhangyumeng@zhangyumeng-virtual-machine:~$ cp 张雨蒙.txt 张雨蒙2.txt
zhangyumeng@zhangyumeng-virtual-machine:~$ mv 张雨蒙.txt B22040615.txt
zhangyumeng@zhangyumeng-virtual-machine:~$ ls
公共的 视频 文档 音乐 桌面 B22040615.txt
模板 图片 下载 张雨蒙2.txt B22040615 snap
zhangyumeng@zhangyumeng-virtual-machine:~$
```

(3) User Management

```
zhangyumeng@zhangyumeng-virtual-machine:~$ whoami
zhangyumeng
zhangyumeng@zhangyumeng-virtual-machine:~$ sudo su root
[sudo] zhangyumeng 的密码:
root@zhangyumeng-virtual-machine:/home/zhangyumeng# groupadd student
groupadd: "student"组已存在
root@zhangyumeng-virtual-machine:/home/zhangyumeng# whoami
root
root@zhangyumeng-virtual-machine:/home/zhangyumeng# adduser b22040615
正在添加用户"b22040615"...
正在添加新组"b22040615" (1002)...
正在添加新用户"b22040615" (1001) 到组"b22040615"...
创建主目录"/home/b22040615"...
正在从"/etc/skel"复制文件...
新的密码:
无效的密码: 密码少于 8 个字符
重新输入新的密码:
抱歉, 密码不匹配。
新的密码:
重新输入新的密码:
passwd: 已成功更新密码
正在改变 b22040615 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@zhangyumeng-virtual-machine:/home/zhangyumeng# usermod -g student b22040615
```

(4) Permission management

```
zhangyumeng@zhangyumeng-virtual-machine:~$ touch demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod 777 demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod a-x demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod go-w demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod g+w demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod a= demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod +t demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod u+s demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod u+rx demo
zhangyumeng@zhangyumeng-virtual-machine:~$ chmod g+rws demo
zhangyumeng@zhangyumeng-virtual-machine:~$ ls -l demo
-r-srws--T 1 zhangyumeng zhangyumeng 0 10月 14 11:05 demo
```

```
zhangyumeng@zhangyumeng-virtual-machine:~$ tar -czvf backup.tar.gz others
others/
others/12
others/11
zhangyumeng@zhangyumeng-virtual-machine:~$ ls -l
总计 56
drwxr-xr-x 2 zhangyumeng zhangyumeng 4096 3月 28 2024 公共的
drwxr-xr-x 2 zhangyumeng zhangyumeng 4096 3月 28 2024 模板
drwxr-xr-x 2 zhangyumeng zhangyumeng 4096 3月 28 2024 视频
drwxr-xr-x 3 zhangyumeng zhangyumeng 4096 4月 3 2024 图片
drwxr-xr-x 2 zhangyumeng zhangyumeng 4096 6月 15 21:34 文档
drwxr-xr-x 3 zhangyumeng zhangyumeng 4096 10月 14 10:28 下载
drwxr-xr-x 2 zhangyumeng zhangyumeng 4096 3月 28 2024 音乐
-rw-rw-r-- 1 zhangyumeng zhangyumeng 13 10月 14 10:44 张雨蒙2.txt
drwxr-xr-x 2 zhangyumeng zhangyumeng 4096 3月 28 2024 桌面
drwxrwxr-x 2 zhangyumeng zhangyumeng 4096 10月 14 10:40 B22040615
-rw-rw-r-- 1 zhangyumeng zhangyumeng 13 10月 14 10:44 B22040615.txt
-rw-rw-r-- 1 zhangyumeng zhangyumeng 160 10月 14 11:15 backup.tar.gz
-r-srws--T 1 zhangyumeng zhangyumeng 0 10月 14 11:05 demo
drwxrwxr-x 2 zhangyumeng zhangyumeng 4096 10月 14 11:14 others
drwx----- 5 zhangyumeng zhangyumeng 4096 4月 1 2024 snap
zhangyumeng@zhangyumeng-virtual-machine:~$ tar -xzvf backup.tar.gz
others/
others/12
```

```
zhangyumeng@zhangyumeng-virtual-machine:~$ grep '^n' 13
no,I study in njupt.
zhangyumeng@zhangyumeng-virtual-machine:~$ grep '\.00$' 13
this line ends with .00
He is 15.It is 16.00
zhangyumeng@zhangyumeng-virtual-machine:~$ grep '5\..' 13
He is 15.It is 16.00
zhangyumeng@zhangyumeng-virtual-machine:~$ grep '^[wy]' 13
wy is the short of my name.
```