

### (1) Directory Operation

Enter the following commands in sequence:

```
$pwd
$cd ~
$mkdir your_studentID
$cd your_studentID
$mkdir your_name
$ls
$rmdir your_name
$ls
```

Save a screenshot of the above command along with the corresponding results, you must have your student number and name.

实验结果如下:

```
[duanhuijie@localhost ~]$ pwd
/home/duanhuijie
[duanhuijie@localhost ~]$ cd ~
[duanhuijie@localhost ~]$ mkdir B22040703
[duanhuijie@localhost ~]$ cd B22040703
[duanhuijie@localhost B22040703]$ mkdir 段慧洁
[duanhuijie@localhost B22040703]$ ls
段慧洁
[duanhuijie@localhost B22040703]$ rmdir 段慧洁
[duanhuijie@localhost B22040703]$ ls
[duanhuijie@localhost B22040703]$
```

### (2) File operation

Enter the following commands in sequence:

```
$cd ~
$touch yourname.txt
$ls
$echo "hello world" > yourname.txt
$cat yourname.txt
$cp yourname.txt yourname2.txt
$mv yourname.txt yourstudentid.txt
$ls
```

Save a screenshot of the above command along with the corresponding results, you must have your student number and name.

实验结果如下:

```

[duanhuijie@localhost ~]$ cd ~
[duanhuijie@localhost ~]$ touch 段慧洁.txt
[duanhuijie@localhost ~]$ ls
a          B22040703段慧洁 must      screenshot 段慧洁.txt 图片 桌面
above     command      of        the         公共
along     corresponding results, with 模板
B22040703 have          Save     you         视频
[duanhuijie@localhost ~]$ echo "hello world" >段慧洁.txt
[duanhuijie@localhost ~]$ cat 段慧洁.txt
hello world
[duanhuijie@localhost ~]$ cp 段慧洁.txt 段慧洁2.txt
[duanhuijie@localhost ~]$ mv 段慧洁.txt B22040703.txt
[duanhuijie@localhost ~]$ ls
a          B22040703.txt have      Save     you      视频 音乐
above     B22040703段慧洁 must      screenshot 段慧洁2.txt 图片 桌面
along     command      of        the         公共
B22040703 corresponding results, with 模板
[duanhuijie@localhost ~]$

```

### (3) User Management

Enter the following commands in sequence:

```

$whoami
$sudo su root

```

Enter the password of the current logged-in user, not the root password, and then enter:

```

#groupadd student
#whoami
#adduser yourstudentID
#usermod -g student yourstudentID

```

Follow the prompts to create the user and add the user to the student group.

Switch to the user.

```

#su yourstudentID
$cd ~
$touch yourname.txt
$ls -l

```

View the properties of the file, including the owner user and the group to which the owner user belongs.

实验结果如下:

```

[duanhuijie@localhost ~]$ whoami
duanhuijie
[duanhuijie@localhost ~]$ sudo su root
[sudo] duanhuijie 的密码:
[root@localhost duanhuijie]# groupadd student
[root@localhost duanhuijie]# whoami
root
[root@localhost duanhuijie]# adduser B22040703
[root@localhost duanhuijie]# usermod -g student B22040703
[root@localhost duanhuijie]# su B22040703
[B22040703@localhost duanhuijie]$ cd ~
[B22040703@localhost ~]$ touch B22040703.txt
[B22040703@localhost ~]$ ls -l
总用量 0
-rw-r--r--. 1 B22040703 student 0 10月 14 10:07 B22040703.txt
[B22040703@localhost ~]$ █

```

#### (4) Permission management

Enter the following commands in sequence:

```

$ touch demo
$ chmod 777 demo
$ chmod a-x demo          # result is rw-rw-rw-
$ chmod go-w demo         # result is rw-r--r--
$ chmod g+w demo          # result is rw-rw-r--
$ chmod a= demo           # result is -----
$ chmod +t demo           # result is -----T
$ chmod u+s demo          # result is --S-----T
$ chmod u+rx demo         # result is r-S-----T
$ chmod g+rws demo        # result is r-srws--T

```

After entering each line, run `ls -l demo` to view the result.

实验结果如下:

```

[duanhuijie@localhost ~]$ touch demo
[duanhuijie@localhost ~]$ chmod 777 demo
[duanhuijie@localhost ~]$ chmod a-x demo
[duanhuijie@localhost ~]$ ls -l

-rw-rw-rw-. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo
[duanhuijie@localhost ~]$ chmod go-w demo
[duanhuijie@localhost ~]$ ls -l

-rw-r--r--. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo
[duanhuijie@localhost ~]$ chmod g+w demo
[duanhuijie@localhost ~]$ ls -l

-rw-rw-r--. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo
[duanhuijie@localhost ~]$ chmod a= demo
[duanhuijie@localhost ~]$ ls -l

-----T. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo
[duanhuijie@localhost ~]$ chmod +t demo
[duanhuijie@localhost ~]$ ls -l

-----T. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo
[duanhuijie@localhost ~]$ chmod u+s demo
[duanhuijie@localhost ~]$ ls -l

---S-----T. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo
[duanhuijie@localhost ~]$ chmod u+rx demo
[duanhuijie@localhost ~]$ ls -l

-r-s-----T. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo
[duanhuijie@localhost ~]$ chmod g+rws demo
[duanhuijie@localhost ~]$ ls -l

-r-srws--T. 1 duanhuijie duanhuijie 0 10月 14 10:16 demo

```

### ###(5) Other management

Create folder "others" in the main directory of the user, go to the folder, and create two files with the name of any file. Then run the following commands in sequence.

```

$tar -czvf backup.tar.gz others
$ls -l
$tar -xzvf backup.tar.gz
$ls -l

```

Observe changes in the process.

Create a textfile file and make it as follows:

```

no, I study in njupt.
this line ends with 00
this line ends with .00
I am 25 years old.
He is 15. It is 16.00
wy is the short of my name.

```

Search for all lines beginning with the character "n" in the file textfile

```

$ grep '^n' textfile

```

Search the textfile for all lines ending in ".00"

```
$ grep '\.00$' textfile
```

Search for all lines in the textfile that contain the number 5, followed by the character ".", followed by any character

```
$ grep '5\..' textfile
```

Search for all lines starting with the characters "w" and "y" in the file textfile

```
$ grep '^[wy]'textfile
```

实验结果如下:

```
[duanhuijie@localhost ~]$ tar -czvf backup.tar.gz others
others/
others/1
others/2
[duanhuijie@localhost ~]$ ls -l
bash: ls -l: 未找到命令...
[duanhuijie@localhost ~]$ ls -l
-rw-rw-r--. 1 duanhuijie duanhuijie 152 10月 14 10:49 backup.tar.gz
drwxr-xr-x. 4 duanhuijie duanhuijie 24 10月 14 10:48 others

[duanhuijie@localhost ~]$ tar -xzvf backup.tar.gz
others/
others/1
others/2

-rw-rw-r--. 1 duanhuijie duanhuijie 152 10月 14 10:49 backup.tar.gz
drwxr-xr-x. 4 duanhuijie duanhuijie 24 10月 14 10:48 others
```

```
[duanhuijie@localhost 文档]$ grep '^n' textfile
no, I study in njupt.
[duanhuijie@localhost 文档]$ grep '\.00$' textfile
this line ends with .00
He is 15. It is 16.00
[duanhuijie@localhost 文档]$ grep '5\..' textfile
He is 15. It is 16.00
[duanhuijie@localhost 文档]$ grep '^[wy]' textfile
wy is the short of my name.
[duanhuijie@localhost 文档]$
```