

1、目录操作

(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.

A terminal window with a dark purple background and green text. The user is in a virtual machine named 'rrrainy'. The commands and their outputs are: 'pwd' returns '/home/rrrainy/B22040704xyt'; 'cd ~' returns the same path; 'mkdir B22040704' creates a new directory; 'cd B22040704' changes to that directory; 'mkdir 谢雨恬' creates a subdirectory named 'Xie Yutian'; 'ls' lists the contents, showing '谢雨恬'; 'rmdir 谢雨恬' removes the subdirectory; 'ls' is run again, and the directory is empty.

```
rrrainy@rrrainy-virtual-machine:~/B22040704xyt$ pwd  
/home/rrrainy/B22040704xyt  
rrrainy@rrrainy-virtual-machine:~/B22040704xyt$ cd ~  
rrrainy@rrrainy-virtual-machine:~$ mkdir B22040704  
rrrainy@rrrainy-virtual-machine:~$ cd B22040704  
rrrainy@rrrainy-virtual-machine:~/B22040704$ mkdir 谢雨恬  
rrrainy@rrrainy-virtual-machine:~/B22040704$ ls  
谢雨恬  
rrrainy@rrrainy-virtual-machine:~/B22040704$ rmdir 谢雨恬  
rrrainy@rrrainy-virtual-machine:~/B22040704$ ls  
rrrainy@rrrainy-virtual-machine:~/B22040704$
```

2、文件操作

(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.

```

rrrainy@rrrainy-virtual-machine:~/B22040704$ cd ~
rrrainy@rrrainy-virtual-machine:~$ touch 谢雨恬.txt
rrrainy@rrrainy-virtual-machine:~$ ls
操作系统 模板 图片 下载 音乐 B22040704 llll
公共的 视频 文档 谢雨恬.txt 桌面 B22040704xyt snap
rrrainy@rrrainy-virtual-machine:~$ echo "hello world" > 谢雨恬.txt
rrrainy@rrrainy-virtual-machine:~$ cat 谢雨恬.txt
hello world
rrrainy@rrrainy-virtual-machine:~$ cp 谢雨恬.txt 谢雨恬2.txt
rrrainy@rrrainy-virtual-machine:~$ mv 谢雨恬.txt B22040704.txt
rrrainy@rrrainy-virtual-machine:~$ ls
操作系统 模板 图片 下载 音乐 B22040704 B22040704xyt snap
公共的 视频 文档 谢雨恬2.txt 桌面 B22040704.txt llll
rrrainy@rrrainy-virtual-machine:~$

```

3、用户管理

(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.

```
root@rrrainy-virtual-machine:/home/rrrainy# su b22040704
b22040704@rrrainy-virtual-machine:/home/rrrainy$ cd ~
b22040704@rrrainy-virtual-machine:~$ touch 谢雨恬.txt
b22040704@rrrainy-virtual-machine:~$ ls -l
总计 0
-rw-rw-r-- 1 b22040704 student 0 10月 14 10:53 谢雨恬.txt
```

4、权限管理

(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.


```

b22040704@rrrainy-virtual-machine:~$ touch demo
b22040704@rrrainy-virtual-machine:~$ chmod 777 demo
b22040704@rrrainy-virtual-machine:~$ chmod a-x demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
-rw-rw-rw- 1 b22040704 student 0 10月 14 10:56 demo
b22040704@rrrainy-virtual-machine:~$ chmod go-w demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
-rw-r--r-- 1 b22040704 student 0 10月 14 10:56 demo
b22040704@rrrainy-virtual-machine:~$ chmod g+w demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
-rw-rw-r-- 1 b22040704 student 0 10月 14 10:56 demo
b22040704@rrrainy-virtual-machine:~$ chmod a= demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
----- 1 b22040704 student 0 10月 14 10:56 demo
b22040704@rrrainy-virtual-machine:~$ chmod +t demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
-----T 1 b22040704 student 0 10月 14 10:56 demo
b22040704@rrrainy-virtual-machine:~$ chmod u+s demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
---S-----T 1 b22040704 student 0 10月 14 10:56 demo
b22040704@rrrainy-virtual-machine:~$ chmod u+rs demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
-r-S-----T 1 b22040704 student 0 10月 14 10:56 demo
b22040704@rrrainy-virtual-machine:~$ chmod g+rws demo
b22040704@rrrainy-virtual-machine:~$ ls -l demo
-r-Srws--T 1 b22040704 student 0 10月 14 10:56 demo

```

5、其他管理

###(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
```



```

rrrainy@rrrainy-virtual-machine:~$ tar -czvf backup.tar.gz other
others/
others/1
others/2
rrrainy@rrrainy-virtual-machine:~$ ls -l
总计 56
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 公共的
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 模板
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 视频
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 图片
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 文档
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 下载
-rw-rw-r-- 1 rrrainy rrrainy 12 10月 14 10:07 谢雨恬2.txt
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 音乐
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 10:20 桌面
drwxrwxr-x 2 rrrainy rrrainy 4096 10月 14 10:04 B22040704
-rw-rw-r-- 1 rrrainy rrrainy 12 10月 14 10:06 B22040704.txt
-rw-rw-r-- 1 rrrainy rrrainy 161 10月 14 11:19 backup.tar.gz
drwxrwxr-x 2 rrrainy rrrainy 4096 10月 14 11:19 others
drwx----- 3 rrrainy rrrainy 4096 10月 11 03:52 snap
rrrainy@rrrainy-virtual-machine:~$ tar -xzvf backup.tar.gz
others/
others/1
others/2
rrrainy@rrrainy-virtual-machine:~$ ls -l
总计 56
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 公共的
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 模板
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 视频
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 图片
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 文档
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 下载
-rw-rw-r-- 1 rrrainy rrrainy 12 10月 14 10:07 谢雨恬2.txt
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 03:53 音乐
drwxr-xr-x 2 rrrainy rrrainy 4096 10月 11 10:20 桌面
drwxrwxr-x 2 rrrainy rrrainy 4096 10月 14 10:04 B22040704
-rw-rw-r-- 1 rrrainy rrrainy 12 10月 14 10:06 B22040704.txt
-rw-rw-r-- 1 rrrainy rrrainy 161 10月 14 11:19 backup.tar.gz
drwxrwxr-x 2 rrrainy rrrainy 4096 10月 14 11:19 others
drwx----- 3 rrrainy rrrainy 4096 10月 11 03:52 snap

```

```
rrrainy@rrrainy-virtual-machine:~/B22040704xyt$ grep '^n' textfile
no, I study in njupt.
rrrainy@rrrainy-virtual-machine:~/B22040704xyt$ grep '\.00$' textfile
this line ends with .00
He is 15. It is 16.00
rrrainy@rrrainy-virtual-machine:~/B22040704xyt$ grep '5\.. ' textfile
He is 15. It is 16.00
rrrainy@rrrainy-virtual-machine:~/B22040704xyt$ grep '^[wy]' textfile
wy is the short of my name.
rrrainy@rrrainy-virtual-machine:~/B22040704xyt$
```