## 1、目录操作

依次输入以下命令：

$pwd

$cd ~

$mkdir your_studentID

$cd your_studentID

$mkdir your_name

$ls

$rmdir your_name

$ls

```
b23041310matao@b23041310matao-virtual-machine:~$ pwd
/home/b23041310matao
b23041310matao@b23041310matao-virtual-machine:~$ cd ~
b23041310matao@b23041310matao-virtual-machine:~$ mkdir B23041310
b23041310matao@b23041310matao-virtual-machine:~$ cd B23041310
b23041310matao@b23041310matao-virtual-machine:~/B23041310$ mkdir matao
b23041310matao@b23041310matao-virtual-machine:~/B23041310$ ls
matao
b23041310matao@b23041310matao-virtual-machine:~/B23041310$ rmdir matao
b23041310matao@b23041310matao-virtual-machine:~/B23041310$ ls
b23041310matao@b23041310matao-virtual-machine:~/B23041310$
```

## 2、文件操作

依次输入以下命令：

$cd ~

$touch yourname.txt

$ls

$echo "hello world" > yourname.txt

$cat yourname.txt

$cp yourname.txt yourname2.txt

$mv yourname.txt yourstudentid.txt

$ls

```
b23041310matao@b23041310matao-virtual-machine:~/B23041310$ cd ~
b23041310matao@b23041310matao-virtual-machine:~$ touch matao.txt
b23041310matao@b23041310matao-virtual-machine:~$ ls
B23041310        matao.txt  模板  图片  下载  桌面
examples.desktop  公共的      视频  文档  音乐
b23041310matao@b23041310matao-virtual-machine:~$ echo "hello world" > matao.txt
b23041310matao@b23041310matao-virtual-machine:~$ cat matao.txt
hello world
b23041310matao@b23041310matao-virtual-machine:~$ cp matao.txt matao2.txt
b23041310matao@b23041310matao-virtual-machine:~$ mv matao.txt B23041310.txt
b23041310matao@b23041310matao-virtual-machine:~$ ls
B23041310        examples.desktop  公共的  视频  文档  音乐
B23041310.txt  matao2.txt          模板    图片  下载  桌面
b23041310matao@b23041310matao-virtual-machine:~$
```

## 3、用户管理

依次输入以下命令：

$whoami

$sudo su root

输入当前登录用户的密码（非 root 密码），然后输入：



按照提示创建用户，并将用户添加到学生组。切换到该用户。



查看文件属性，包括所有者用户及其所属的用户组。



## 4、权限管理

依次输入以下命令：

输入每行后，运行 ls -l demo 以查看结果。

```
B23041310@b23041310matao-virtual-machine:~$ touch demo
B23041310@b23041310matao-virtual-machine:~$ chmod 777 demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
-rwxrwxrwx 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod a-x demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
-rw-rw-rw- 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod go-w demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
-rw-r--r-- 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod g+w demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
-rw-rw-r-- 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod a= demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
---------- 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod +t demo
B23041310@b23041310matao-virtual-machine:~$ ls -l
---------T 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod u+s demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
---S-----T 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod u+rx demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
-r-s-----T 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$ chmod g+rws demo
B23041310@b23041310matao-virtual-machine:~$ ls -l demo
-r-srwS--T 1 B23041310 student 0 11月 21 10:31 demo
B23041310@b23041310matao-virtual-machine:~$
```

## 5、其他管理

在用户主目录下创建名为"others"的文件夹，进入该文件夹后，创建两个任意命名的文件。随后依次执行以下命令，观察过程中的变化。

```
B23041310@b23041310matao-virtual-machine:~$ tar -czvf backup.tar.gz others
tar: others: 无法 stat: 没有那个文件或目录
tar: 由于前次错误，将以上次的错误状态退出
B23041310@b23041310matao-virtual-machine:~$ mkdir others
B23041310@b23041310matao-virtual-machine:~$ cd others
B23041310@b23041310matao-virtual-machine:~/others$ touch file1.txt file2.doc
B23041310@b23041310matao-virtual-machine:~/others$ cd ~
B23041310@b23041310matao-virtual-machine:~$ tar -czvf backup.tar.gz others
others/
others/file1.txt
others/file2.doc
B23041310@b23041310matao-virtual-machine:~$ ls -l
总用量 20
-rw-r--r-- 1 B23041310 student  168 11月 21 10:45 backup.tar.gz
-r-srwS--T 1 B23041310 student    0 11月 21 10:31 demo
-rw-r--r-- 1 B23041310 student 8980 11月 21 10:24 examples.desktop
-rw-r--r-- 1 B23041310 student    0 11月 21 10:30 matao.txt
drwxr-xr-x 2 B23041310 student 4096 11月 21 10:44 others
B23041310@b23041310matao-virtual-machine:~$ tar -xzvf backup.tar.gz
others/
others/file1.txt
others/file2.doc
B23041310@b23041310matao-virtual-machine:~$ ls -l
总用量 20
-rw-r--r-- 1 B23041310 student  168 11月 21 10:45 backup.tar.gz
-r-srwS--T 1 B23041310 student    0 11月 21 10:31 demo
-rw-r--r-- 1 B23041310 student 8980 11月 21 10:24 examples.desktop
-rw-r--r-- 1 B23041310 student    0 11月 21 10:30 matao.txt
drwxr-xr-x 2 B23041310 student 4096 11月 21 10:44 others
B23041310@b23041310matao-virtual-machine:~$
```

创建一个文本文件，并按以下方式设置

```
B23041310@b23041310matao-virtual-machine:~$ touch textfile
B23041310@b23041310matao-virtual-machine:~$ nano textfile
B23041310@b23041310matao-virtual-machine:~$
```

```
GNU nano 2.9.3                    textfile                    已更改

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.




^G 求助    ^O 写入    ^W 搜索    ^K 剪切文字 ^J 对齐    ^C 游标位置
^X 离开    ^R 读档    ^\ 替换    ^U 还原剪切 ^T 拼写检查 ^_ 跳行
```

在文件 textfile 中搜索所有以字符"n"开头的行

```
B23041310@b23041310matao-virtual-machine:~$ grep '^n' textfile
no, I study in njupt.
```

在文本文件中搜索所有以".00"结尾的行

```
B23041310@b23041310matao-virtual-machine:~$ grep '\.00$' textfile
this line ends with .00
He is 15. It is 16.00
```

在文本文件中搜索所有包含数字 5、后跟字符"、以及任意字符的行

```
B23041310@b23041310matao-virtual-machine:~$ grep '5\..' textfile
He is 15. It is 16.00
```

在文件 textfile 中搜索所有以字符"w"和"y"开头的行

```
B23041310@b23041310matao-virtual-machine:~$ grep '^[wy]' textfile
wy is the short of my name.
```