

1

```
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ pwd
/home/jian
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ cd ~
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ mkdir Q23010327
mkdir: cannot create directory 'Q23010327': File exists
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ cd Q23010327
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~/Q23010327]
$ mkdir jianjiang
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~/Q23010327]
$ ls
jianjiang  Q23010327
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~/Q23010327]
$ rmdir jianjiang
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~/Q23010327]
$ ls
Q23010327
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~/Q23010327]
$
--INSERT--
```

```
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~/Q23010327]
$ cd ~
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ touch jianjiang.txt
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls
Desktop  Dotfiles  jianjiang.txt  Pictures  Q23010327  Templates  Videos
Documents  Downloads  Music  Public  snap  tmp_dir
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ echo "hello word" > jianjiang.txt
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ cat jianjiang.txt
hello word
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ cp jianjiang.txt jianjiang2.txt
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ mv jianjiang.txt Q23010327.txt
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls
Desktop  Downloads  Pictures  Q23010327.txt  tmp_dir
Documents  jianjiang2.txt  Public  snap  Videos
Dotfiles  Music  Q23010327  Templates
--INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$
--NORMAL--
```

```

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~]
$ whoami
jian

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~]
$ sudo su root
[sudo] password for jian:
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian#
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# groupadd student
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# whoami
root
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# adduser Q23010327
adduser: Please enter a username matching the regular expression configured
via the NAME_REGEX[SYSTEM] configuration variable. Use the '--force-badname'
option to relax this check or reconfigure NAME_REGEX.
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# adduser jianjiang
Adding user `jianjiang' ...
Adding new group `jianjiang' (1002) ...
Adding new user `jianjiang' (1001) with group `jianjiang' ...
Creating home directory `/home/jianjiang' ...
Copying files from `/etc/skel' ...
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
Changing the user information for jianjiang
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:

```

```

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~]
$ whoami
root
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# adduser Q23010327
adduser: Please enter a username matching the regular expression configured
via the NAME_REGEX[SYSTEM] configuration variable. Use the '--force-badname'
option to relax this check or reconfigure NAME_REGEX.
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# adduser jianjiang
Adding user `jianjiang' ...
Adding new group `jianjiang' (1002) ...
Adding new user `jianjiang' (1001) with group `jianjiang' ...
Creating home directory `/home/jianjiang' ...
Copying files from `/etc/skel' ...
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
Changing the user information for jianjiang
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] y
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# usermod -g student jianjiang
root@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian# su jianjiang
jianjiang@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:/home/jian$ cd ~
jianjiang@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:~$ touch jianjiang.txt
jianjiang@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:~$ ls -l
total 0
-rw-r--r-- 1 jianjiang student 0 10月 31 11:23 jianjiang.txt
jianjiang@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:~$

```

```
Alacritty

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ mkdir /home/jian/others
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ cd ~/others
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~/others$ touch 111.txt 222.txt
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~/others$ tar -czvf backup.tar.gz.others
--INSERT--
tar: Cowardly refusing to create an empty archive
Try 'tar --help' or 'tar --usage' for more information.

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~/others$ ls -l
--INSERT--
-rw-rw-r-- jian jian 0 B Mon Nov 10 08:45:22 2025 111.txt
-rw-rw-r-- jian jian 0 B Mon Nov 10 08:45:22 2025 222.txt

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~/others$ tar -xzf backup.tar.gz
--INSERT--
tar (child): backup.tar.gz: Cannot open: No such file or directory
tar (child): Error is not recoverable: exiting now
tar: Child returned status 2
tar: Error is not recoverable: exiting now

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~/others$ ls -l
--INSERT--
-rw-rw-r-- jian jian 0 B Mon Nov 10 08:45:22 2025 111.txt
-rw-rw-r-- jian jian 0 B Mon Nov 10 08:45:22 2025 222.txt

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~/others$
--INSERT--
```

```
Alacritty

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ touch demo
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ chmod 777 demo
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ chmod a-x demo
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ ls -l demo
--INSERT--
-rw-rw-rw- jian jian 0 B Mon Nov 10 08:22:10 2025 demo

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ chmod go-w demo
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ ls -l demo
--INSERT--
-rw-r--r-- jian jian 0 B Mon Nov 10 08:22:10 2025 demo

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ chmod g+w demo
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ ls -l demo
--INSERT--
-rw-rw-r-- jian jian 0 B Mon Nov 10 08:22:10 2025 demo

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ chmod a= demo
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ ls -l demo
--INSERT--
-----T jian jian 0 B Mon Nov 10 08:22:10 2025 demo

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ chmod +t demo
--INSERT--

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ ls -l demo
--INSERT--
-----T jian jian 0 B Mon Nov 10 08:22:10 2025 demo

(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~$ chmod u+s demo
--INSERT--
```

```
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ chmod g+w demo --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls -l demo --INSERT--
-rw-rw-r-- jian jian 0 B Mon Nov 10 08:22:10 2025 demo
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ chmod a= demo --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls -l demo --INSERT--
-----T jian jian 0 B Mon Nov 10 08:22:10 2025 demo
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ chmod +t demo --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls -l demo --INSERT--
-----T jian jian 0 B Mon Nov 10 08:22:10 2025 demo
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ chmod u+s demo --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls -l demo --INSERT--
--S-----T jian jian 0 B Mon Nov 10 08:22:10 2025 demo
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ chmod u+rx demo --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls -l demo --INSERT--
-r-s-----T jian jian 0 B Mon Nov 10 08:22:10 2025 demo
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ chmod g+rx demo --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ ls -l demo --INSERT--
-r-srws--T jian jian 0 B Mon Nov 10 08:22:10 2025 demo
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$
```

```
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ cat > textfile <<EOF --INSERT--
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.
EOF
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ grep '^n' textfile --INSERT--
no, I study in njupt.
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ grep '\.00$' textfile --INSERT--
this line ends with .00
He is 15. It is 16.00
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ grep '5\.'" textfile --INSERT--
He is 15. It is 16.00
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$ grep '^[wy]' textfile --INSERT--
wy is the short of my name.
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)-[~]
$
```

2-1

```
GNU nano 6.2 exp1.sh
#!/bin/bash
hour=`date +%H`
case $hour in
0[1-9] | 1[01] )
echo "Good morining !!"
;;
1[2-7] )
echo "Good afternoon !!"
;;
* )
echo "Good evening !! "
;;
esac
```

^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^_ Go To Line

```
jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx~
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~[~]
$ nano exp1.sh --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~[~]
$ chmod +x exp1.sh --INSERT--
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~[~]
$ ./exp1.sh --INSERT--
Good morining !!
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~[~]
$ --NORMAL--
```


2-2

```
jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx~  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./exp1.sh  
Enter the first integer:  
555  
Enter the second integer:  
666  
555 is less than 666  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$
```

2-3

```
jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx~  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano exp1.sh  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./exp1.sh  
The minimal value is: -3  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$
```

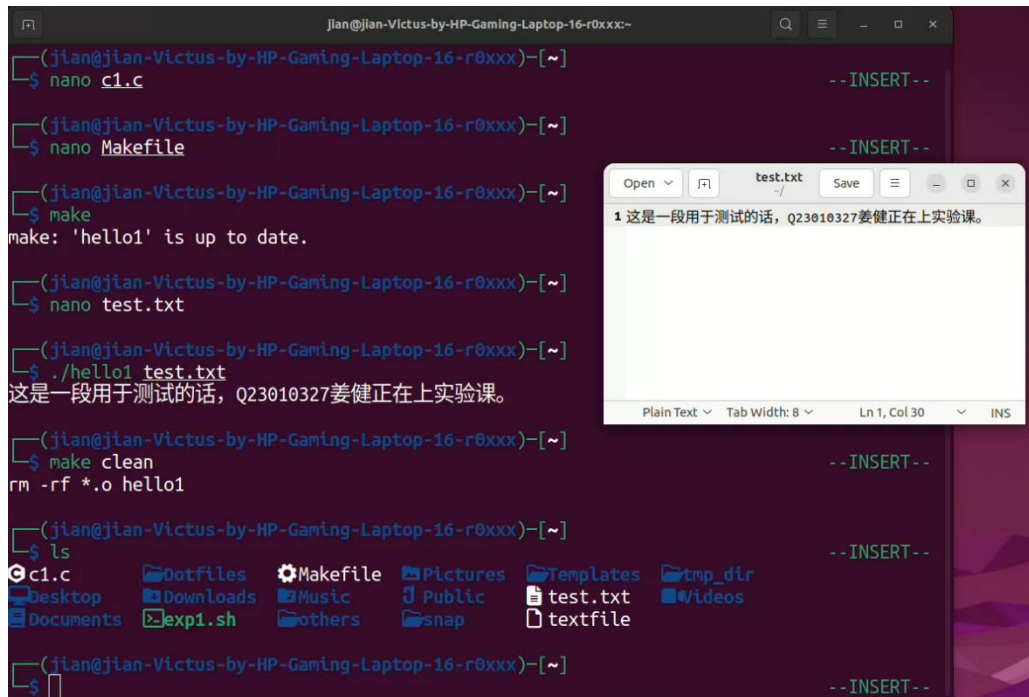
2-4

```
jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx~  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano exp1.sh  
--INSERT--  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./exp1.sh  
--INSERT--  
Number of executive files: 13  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$
```

2-5

```
jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx~  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano exp1.sh  
--INSERT--  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./exp1.sh  
--INSERT--  
Enter a number:  
2  
2 is a prime!  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./exp1.sh  
--INSERT--  
Enter a number:  
1  
1 is not a prime!  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$
```

3-1



The image shows a terminal window and a text editor. The terminal window is titled "jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:~" and shows the following commands and output:

```
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano c1.c  
--INSERT--  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano Makefile  
--INSERT--  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ make  
make: 'hello1' is up to date.  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano test.txt  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./hello1 test.txt  
这是一段用于测试的话, Q23010327姜健正在上实验课。  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ make clean  
rm -rf *.o hello1  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ls  
c1.c      .Dotfiles  Makefile  Pictures  Templates tmp_dir  
desktop  Downloads  Music     Public   test.txt  Videos  
Documents exp1.sh    others    snap     textfile  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$
```

The text editor window is titled "test.txt" and shows the following text:

```
1 这是一段用于测试的话, Q23010327姜健正在上实验课。
```

The text editor window also shows the status bar: "Plain Text Tab Width: 8 Ln 1, Col 30 INS".

3-2

```
jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:~  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano c2.c --INSERT--  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano Makefile --INSERT--  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ make --INSERT--  
make: 'hello2' is up to date.  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./hello2 --INSERT--  
textfile  
c2.c  
Makefile  
Dotfiles  
snap  
Documents  
Downloads  
c1.c  
c1.o  
Public  
c2.o  
Pictures  
tmp_dir  
others  
exp1.sh  
Desktop  
hello2  
test.txt  
Music  
Templates  
Videos  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ make clean --INSERT--  
rm -rf *.o hello2  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ls --INSERT--  
c1.c Documents exp1.sh others snap textfile  
c2.c Dotfiles Makefile Pictures Templates tmp_dir  
Desktop Downloads Music Public test.txt Videos  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ --INSERT--
```

```
jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx:~  
  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano c3.c --INSERT--  
  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ nano Makefile --INSERT--  
  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ make --INSERT--  
gcc -c c3.c  
gcc -o hello3 c3.o  
  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ./hello3 --INSERT--  
Current working directory: /home/jian  
Change directory to /home success  
New working directory: /home  
  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ make clean --INSERT--  
rm -rf *.o hello3  
  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ ls --INSERT--  
c1.c Desktop Downloads Music Public test.txt Videos  
c2.c Documents exp1.sh others snap textfile  
c3.c Dotfiles Makefile Pictures Templates tmp_dir  
  
(jian@jian-Victus-by-HP-Gaming-Laptop-16-r0xxx)~  
$ --INSERT--
```