3.Ubuntu common commands

3.1、Add

New create file

```
touch test.txt
```

New create folder

```
mkdir test # Create a file
mkdir -p test/src # Create the test folder and create the src folder in the test folder
```

Copy

```
sudo cp test.txt test_copy.txt # Copy a file
```

3.2、Delete

-i	To execute interactively
-f	Forced deletion, ignoring non-existent files without prompting
-r	Recursively delete the contents of a directory

```
sudo rm test.txt    # Delete files | empty folders
sudo rm -r test     # Delete folders and their contents
```

3.3、Modify

- move、re-name

```
sudo mv test test_new          # Change the test folder to test_new
sudo mv test.txt test_new.txt  # Modify the test.txt file to test_new.txt
```

- chmod changes file permissions

Permission settings

Symbol	Meaning
+	Add permissions
-	Revoke permission
=	Set permissions

rwx

Letter permissions	Meaning
r	read means read permission. For a directory, if there is no r permission, it means that the contents of this directory cannot be viewed through ls.
w	write means write permission. For a directory, if there is no w permission, it means that new files cannot be created in the directory.
x	execute means executable permission. For a directory, if there is no x permission, it means that the directory cannot be entered through cd.

```
sudo chmod +rwx test.txt
```

Add a shortcut to all permissions

```
sudo chmod 777 test.txt
```

Set root password

```
sudo passwd root
```

Set user password

```
sudo passwd user name
```

3.4、View

- View system version

```
lsb_release -a    # Release version number
uname -a          # Kernel version and system bit number
cat /proc/version # Kernel version and gcc version
```

- View hardware information

```
curl cip.cc or ifconfig         # View IP address
cat /proc/cpuinfo or lscpu      # cpu information
sudo dmidecode -t memory        # Memory information
df -h                           # View the space status of all mounted file
systems
which python3                   # View command location
v4l2-ctl --list-formats-ext     # View camera device parameters
nproc       # Check the number of cores
```

- View file information

```
la        # Display all subdirectories and files in the specified directory, including hidden files
ll        # Display detailed information of files in list format
ls -h     # Used to display the file size in a user-friendly way
cat test.txt      # View file content
tree              # View the file directory (needs to install tree)
```

tree installation command

```
sudo apt install tree
```

- Find files

```
find ./ -name test.sh   # Find all files or directories named test.sh in the current directory
find ./ -name '*.sh'    # Find all files or directories with the suffix .sh in the current directory
find ./ -name "[A-Z]*"  # Search for all files or directories starting with an uppercase letter in the current directory
```

3.5、Other

- tar command

tar usage format: tar [parameter] package file name file

```
-c   # Generate archive files and create packaging files
-v   # List the detailed process of archive unarchiving and display the progress
-f   # Specify the name of the archive file. The f must be followed by a .tar file, so the option must be placed last.
-t   # List files contained in the archive
-x   # Unpack archive file
```

Pack

```
tar -cvf xxx.tar *               # All files in current directory
tar -cvf xxx.tar *.txt           # Files ending with .txt
tar -cvf xxx.tar my-file my-dir   # Pack the specified directory or file
```

Unpack

```
tar -xvf xxx.tar            # Unpack to current directory
tar -xvf xxx.tar -C my-dir   # Unpack to the specified directory (you need to create the my-dir directory first)
```

- zip、unzip command

Compressed file: zip [-r] target file (no extension) source file

```
zip bak *       # All files in the current directory, you can also specify files
zip -r bak *    # All files & directories in the current directory recursively
```

Unzip the file: unzip -d directory file after decompression compressed file

```
unzip -d ./target_dir bak.zip  # Unzip to the specified directory
unzip bak.zip                  # Unzip to current directory
```

- ln command

Soft link: Soft link does not occupy disk space. If the source file is deleted, the soft link will become invalid. Commonly used, you can create files or folders

```
ln -s Source file   Link file
```

Hard links: Hard links can only link ordinary files, not directories. Even if the source file is deleted, the linked file still exists

```
ln Source file   Link file
```

- scp remote copy

```
scp jetson@192.168.16.66:/home/jetson/xxx.tar.gz /home/yahboom/ # Copy files
from remote to local
scp /home/yahboom/xxx.png jetson@192.168.16.66:/home/jetson/    # Copy files
from local to remote
scp -r jetson@192.168.16.66:/home/jetson/test /home/yahboom/    # Copy directory
from remote to local -r
scp -r /home/yahboom/test jetson@192.168.16.66:/home/jetson/    # Copy directory
from local to remote -r
```

- wget file download

Search for an image address on Baidu as an example.

```
wget
"https://www.yahboom.com/Public/ueditor/php/upload/image/20210104/16097637065267
02.png"
wget -O yahboom.jpg
"https://www.yahboom.com/Public/ueditor/php/upload/image/20210104/16097637065267
02.png"
```

- Other

```
nautilus .              # Open the current file
cd ~                    # Switch to the current user's home directory
(/home/user directory)
cd .                    # Switch to the current directory
cd -                    # can enter the directory where you were last time
cd /                    # Switch to the system root directory /
pwd                     # Display the current path
echo "HelloWorld"       # Output HelloWorld information to the console
which                   # View command location
```