Lesson 2 First Program-“Hello World”

String is a collection of multiple characters and enclosed by single or double quotation mark. String includes alphabet, Arabic numeral, Chinese or various symbols.

For example, we can print “**Hello World**” string on the screen.

1. Operation Steps

Note: please strictly distinguish lower case and upper case, and the keywords can be complemented by Tab key.

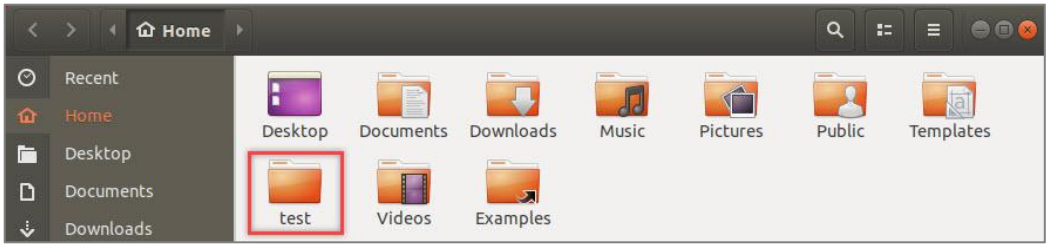
1） Start virtual machine, and click  , and then click  or press “**Ctrl+Alt+T**” to open command line terminal.

2） Input “**sudo apt install vim**” command to install vim editor. During installation, if the prompt about whether to continue execution occurs, just input “**y**” and press Enter.

```
hiwonder@ubuntu:~$ sudo apt install vim
[sudo] password for hiwonder:
```

3） Input “**mkdir test**” command and press Enter to build a folder named “**test**” under the current directory.

```
hiwonder@hiwonder-virtual-machine:~$ mkdir test
```



4） Input command “**cd test/**” and press Enter to enter “**test**” folder.

```
hiwonder@hiwonder-virtual-machine:~$ cd test/
```

5）Input “**touch hello.py**” command and press Enter to create a program file named “**hello**”.

```
hiwonder@hiwonder-virtual-machine:~/test$ touch hello.py
```

6）Input “**vim hello.py**” command and press Enter to open program file.

```
hiwonder@hiwonder-virtual-machine:~/test$ vim hello.py
```

7）Press “**I**” key to enter editing mode and then input “**print("Hello World")**”.

```
print("Hello World")

~
-- 插入 --                                                    2,1
```

8）Press “**Esc**” and input “**:wq**” and press Enter to save and exit the editing.

```
~
:wq
```

9）Input “**python3 hello.py**” command and press Enter to run the program file. Then the string will be printed on the terminal.

```
hiwonder@hiwonder-virtual-machine:~/test$ python3 hello.py
Hello World
```

2. Expansion Content

Besides the string, print() function can be also used to output the result of mathematical expression. Take adding print() function of mathematical expression to the program file for example.

1）Start virtual machine, and click  , and then click  or press “**Ctrl+Alt+T**” to open command line terminal.

2）Input command “**cd test/**” and press **Enter** to enter “**cd test/**” folder.

```
hiwonder@hiwonder-virtual-machine:~$ cd test/
```

3）Input “**vim hello.py**” command, and press Enter to open program file.

```
hiwonder@hiwonder-virtual-machine:~/test$ vim hello.py
```

4）Press “**I**” key to enter the editing mode and input “**print(100+100)**”.

```
print("Hello World")
print(100+100)
```

Note: there is no need to enclose the mathematical expression with double quotation mark.

5）Press “**Esc**” and input “**:wq**” and press **Enter** to save and exit the editing.

```
~
:wq
```

6）Input “**python3 hello.py**” command and press Enter to run the program file. Then the result of the mathematical expression will be printed on the terminal.

```
hiwonder@hiwonder-virtual-machine:~/test$ python3 hello.py
Hello World
200
```

3. Function Explanation

print() function is used to print output in the format below.

```
print(*objects, sep=' ', end='\n', file=sys.stdout, flush=False)
```

The first parameter “**objects**” is the output object. When output several objects, they should be separately with “**,**” in between.

The second parameter “**sep**” is used to put string between the output objects, ’ ’ by default.

The third parameter “**end**” is used to add string at the end of output, ’\n’ by default.

The fourth parameter “**file**” is the object with a write function, the default value is “sys.stdout”, that is screen.

The fifth parameter “**flush**” is used to output cache and the default value is “**False**”.