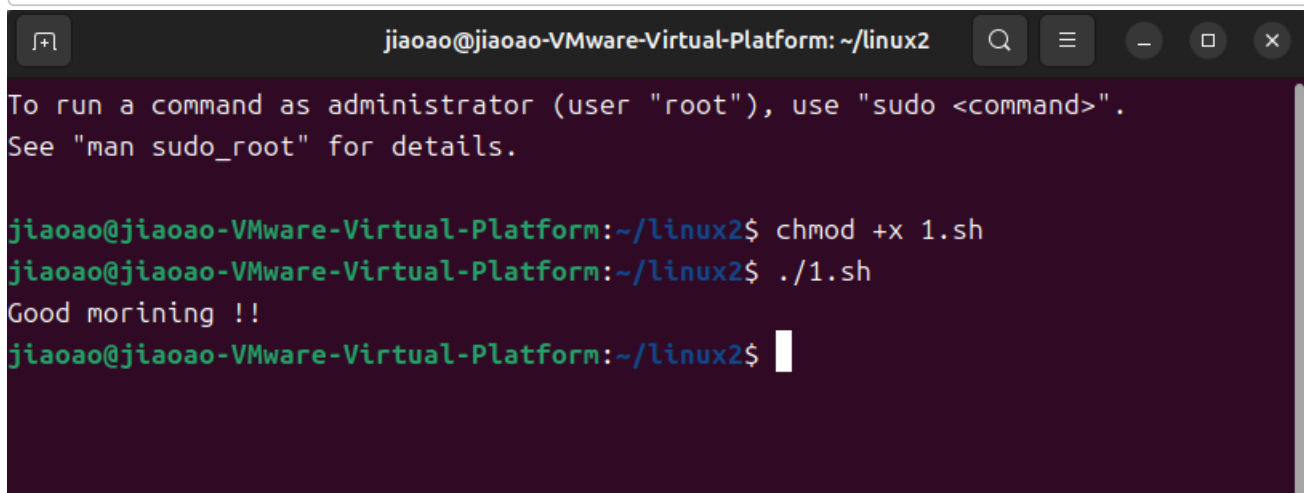


# Experiment 2

use a editor to finishe the following shell scripts, and run them in Linux system.

## 1. Obtain the system time, and check whether it is in the morning, afternoon, or evening.

```
#!/bin/bash
hour = `date +%H`
case $hour in
0[1-9] | 1[01] )
echo "Good morining !!"
;;
1[234567] )
echo "Good afternoon !!"
;;
* )
echo "Good evening !! "
;;
Esac
```

A terminal window titled 'jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2'. It shows the command 'chmod +x 1.sh' and then './1.sh' being executed. The output of the script is 'Good morining !!'.

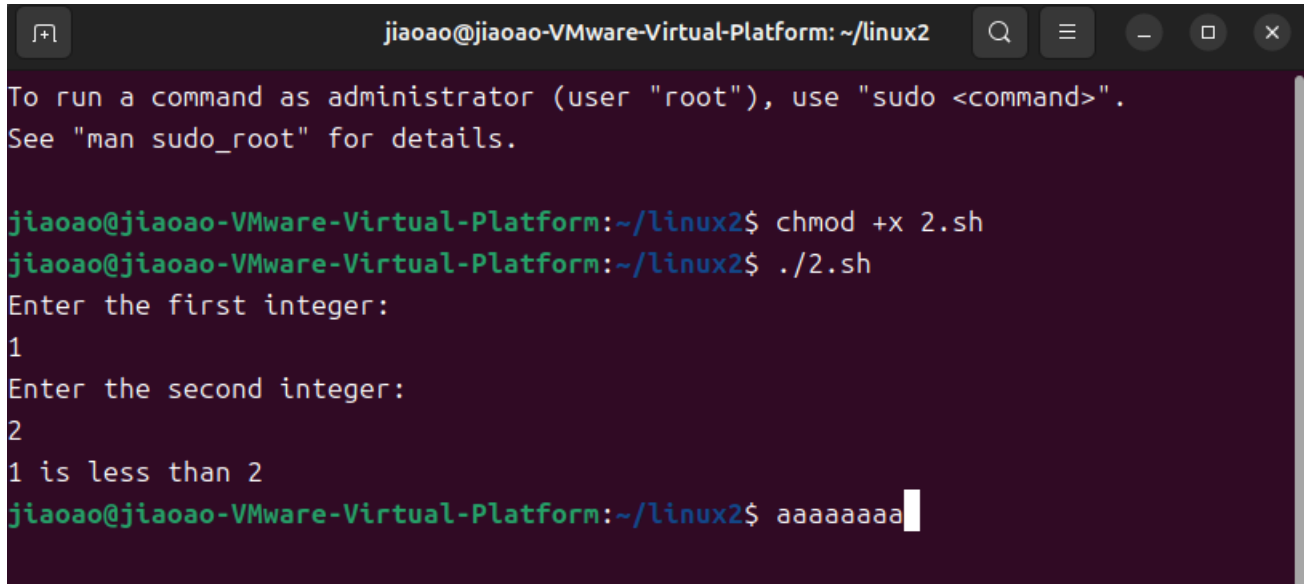
```
jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ chmod +x 1.sh
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ ./1.sh
Good morining !!
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$
```

## 2. Input two number, check which one is greater, and output the result.

```
#!/bin/sh
echo "Enter the first integer:"
read first
echo "Enter the second integer:"
read second
if [ "$first" -gt "$second" ]
then
echo "$first is greater than $second"
```

```
elif [ "$first" -lt "$second" ]
then
echo "$FIRST is less than $second"
else
echo "$FIRST is equal to $second"
fi
```

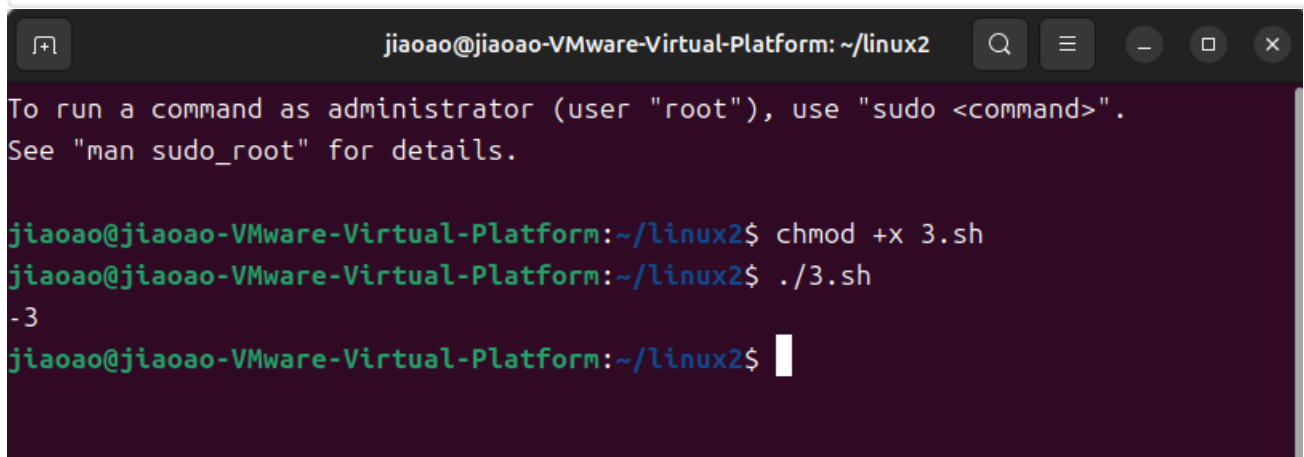
A terminal window titled 'jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2'. It displays instructions for running commands as administrator. The user runs 'chmod +x 2.sh' and './2.sh'. The script prompts for two integers: 'Enter the first integer:' (1) and 'Enter the second integer:' (2). It then outputs '1 is less than 2'. The prompt 'jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2\$' is followed by 'aaaaaaaa' and a cursor.

```
jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ chmod +x 2.sh
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ ./2.sh
Enter the first integer:
1
Enter the second integer:
2
1 is less than 2
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ aaaaaaaaa
```

### 3. Find the minimal value in a given list.

```
#!/bin/bash
smallest=10000
for i in 8 2 18 0 -3 87
do
if test $i -lt $smallest
then
smallest=$i
fi
done
echo $smallest
```

A terminal window titled 'jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2'. It displays instructions for running commands as administrator. The user runs 'chmod +x 3.sh' and './3.sh'. The script outputs '-3'. The prompt 'jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2\$' is followed by a cursor.

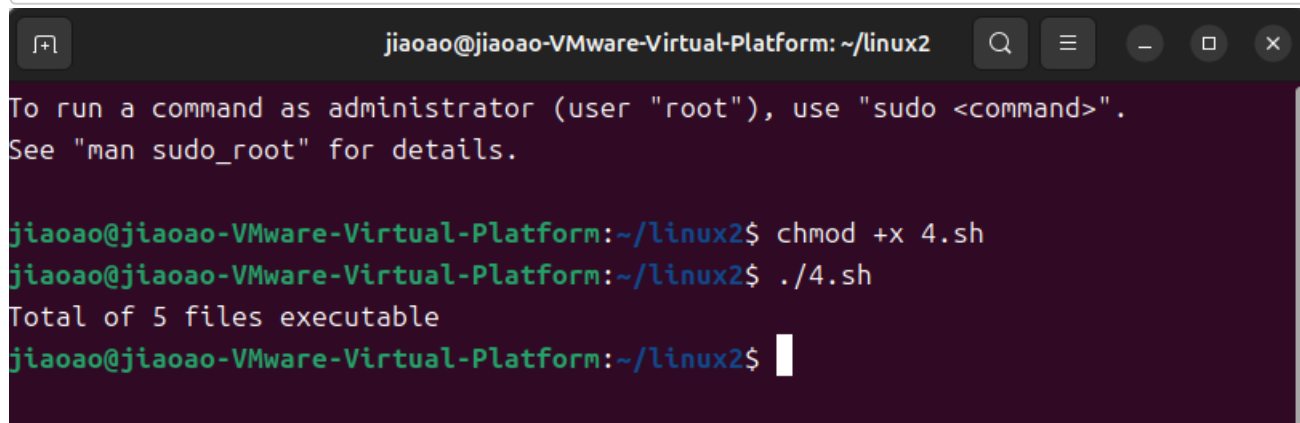
```
jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ chmod +x 3.sh
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ ./3.sh
-3
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$
```

## 4. Calculate the number of executive file in the current directory.

---

```
#!/bin/bash
count=0
for i in *
do
if test -x $i
then
count=`expr $count + 1`
fi
done
echo Total of $count files executable
```

A terminal window titled 'jjaoao@jjaoao-VMware-Virtual-Platform: ~/linux2'. It shows a message about running commands as administrator. Then, the user runs 'chmod +x 4.sh' and './4.sh'. The script outputs 'Total of 5 files executable'.

```
jjaoao@jjaoao-VMware-Virtual-Platform: ~/linux2
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

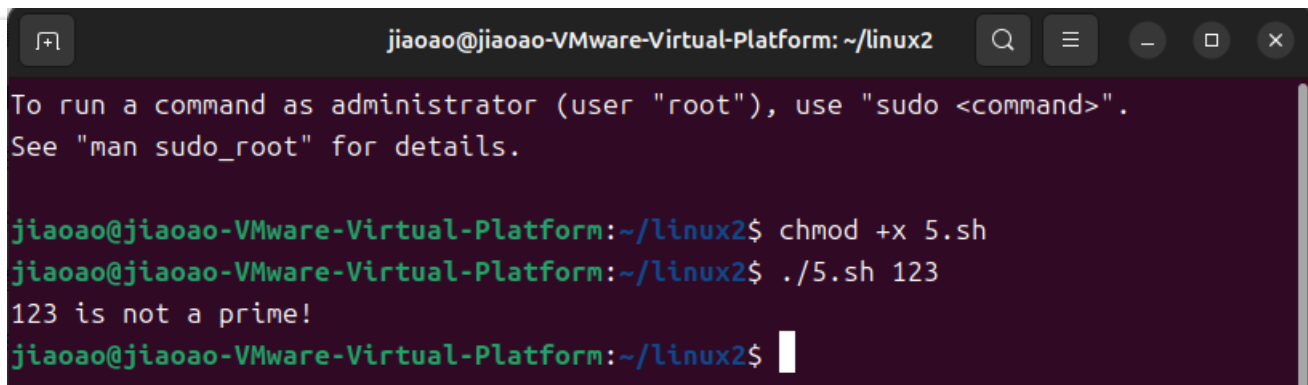
jjaoao@jjaoao-VMware-Virtual-Platform:~/linux2$ chmod +x 4.sh
jjaoao@jjaoao-VMware-Virtual-Platform:~/linux2$ ./4.sh
Total of 5 files executable
jjaoao@jjaoao-VMware-Virtual-Platform:~/linux2$
```

## 5. Check whether a given number is a prime, you have to write a function, and call the function.

---

```
prime( )
{
flag=1
j=2
while [ $j -le `expr $1 / 2` ]
do
if [ `expr $1 % $j` -eq 0 ]
then
flag=0
break
fi
j=`expr $j + 1`
done
if [ $flag -eq 1 ]
then
return 1
else
return 0
fi
}
```

```
prime $1
if [ $? -eq 1 ]
then
echo "$1 is a prime!"
else
echo "$1 is not a prime!"
fi
```

A terminal window titled 'jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2' with standard window controls. It displays a message about running commands as administrator, followed by the execution of a script '5.sh' with argument '123'. The script outputs '123 is not a prime!'.

```
jjiaoao@jjiaoao-VMware-Virtual-Platform: ~/linux2
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ chmod +x 5.sh
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$ ./5.sh 123
123 is not a prime!
jjiaoao@jjiaoao-VMware-Virtual-Platform:~/linux2$
```