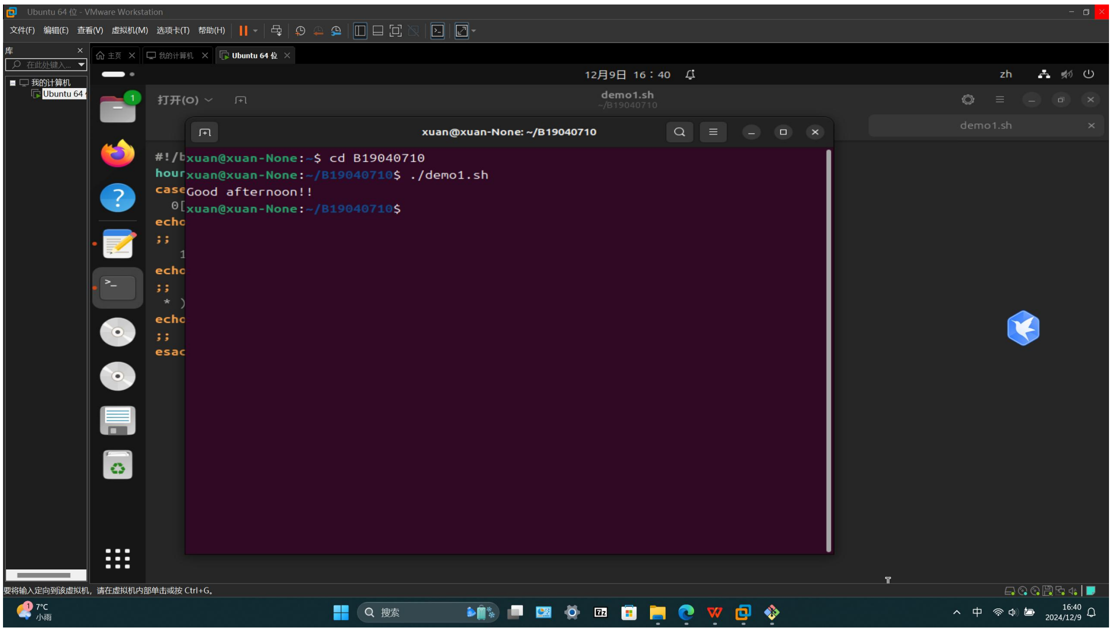
Experiment 2

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
```



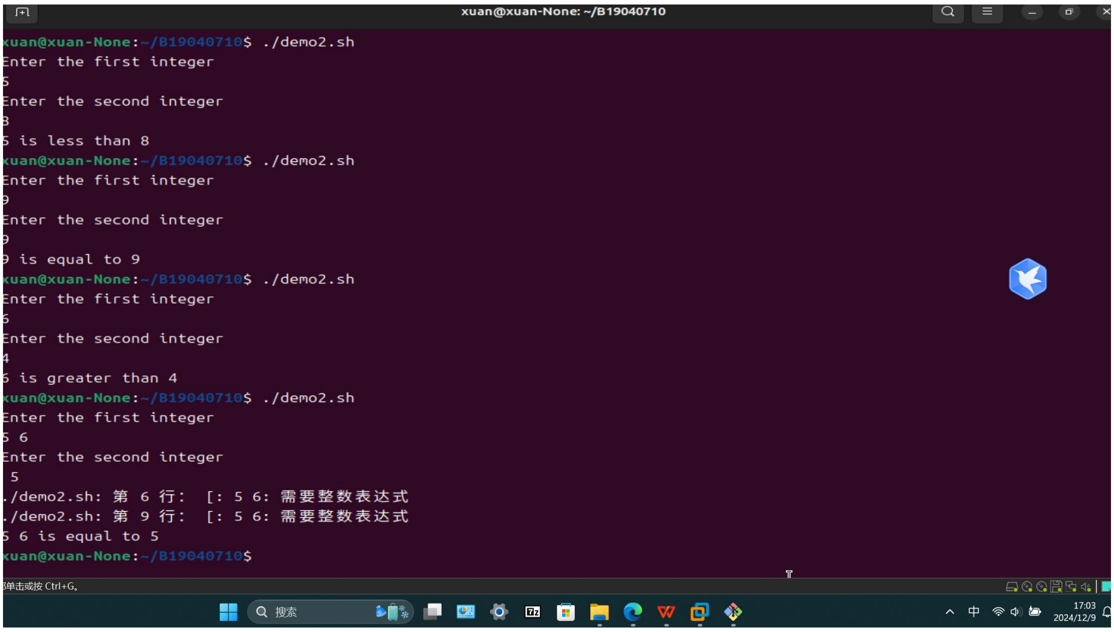
```
xuan@xuan-None:~$ cd B19040710
xuan@xuan-None:~/B19040710$ ./demo1.sh
Good afternoon!!
xuan@xuan-None:~/B19040710$
```

Ubuntu 64 位 - VMware Workstation
xuan@xuan-None: ~/B19040710
demo1.sh
~/B19040710
12月9日 16：40
打开(O)

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

```
#!/bin/sh
echo "Enter the first integer:"
read first
```

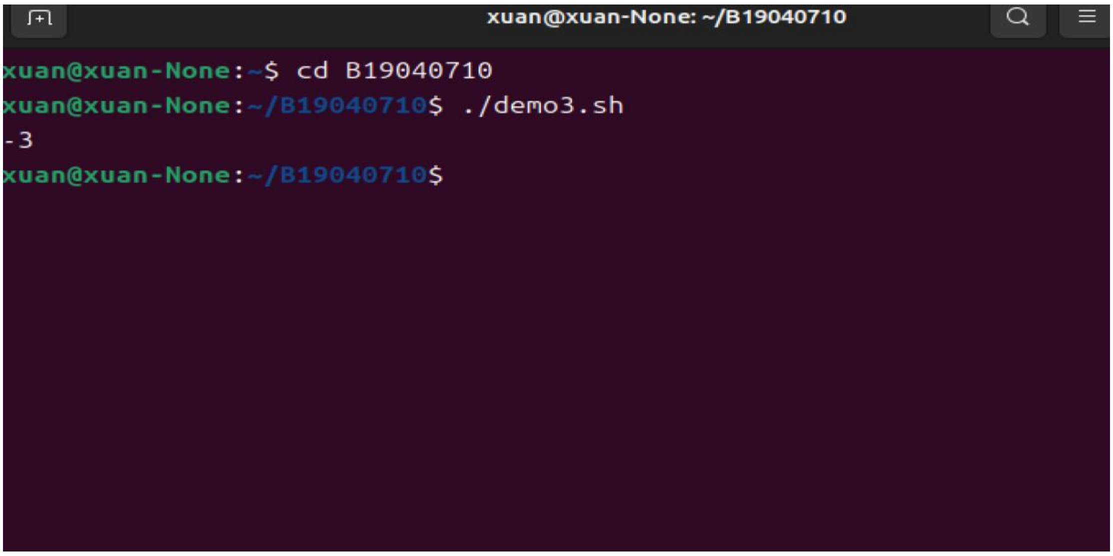
```
echo "Enter the second integer:"
read second
if [ "$first" -gt "$second" ]
then
echo "$first is greater than $second"
elif [ "$first" -lt "$second" ]
then
echo "$FIRST is less than $second"
else
echo "$FIRST is equal to $second"
fi
```



```
xuan@xuan-None:~/B19040710$ ./demo2.sh
Enter the first integer
5
Enter the second integer
8
5 is less than 8
xuan@xuan-None:~/B19040710$ ./demo2.sh
Enter the first integer
9
Enter the second integer
9
9 is equal to 9
xuan@xuan-None:~/B19040710$ ./demo2.sh
Enter the first integer
6
Enter the second integer
4
6 is greater than 4
xuan@xuan-None:~/B19040710$ ./demo2.sh
Enter the first integer
5 6
Enter the second integer
 5
./demo2.sh: 第 6 行： [: 5 6: 需要整数表达式
./demo2.sh: 第 9 行： [: 5 6: 需要整数表达式
5 6 is equal to 5
xuan@xuan-None:~/B19040710$
```

3. Find the minimal value in a given list.

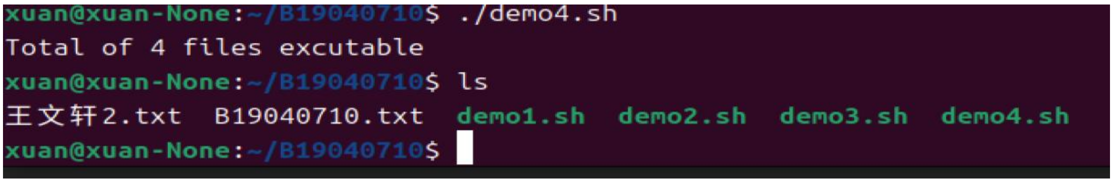
```
#!/bin/bash
smallest=10000 for i in 8 2 18 0 -3 87
do
if test $i -lt $smallest
then
smallest=$i
fi
done
echo $smallest
```



```
xuan@xuan-None:~$ cd B19040710
xuan@xuan-None:~/B19040710$ ./demo3.sh
-3
xuan@xuan-None:~/B19040710$
```

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

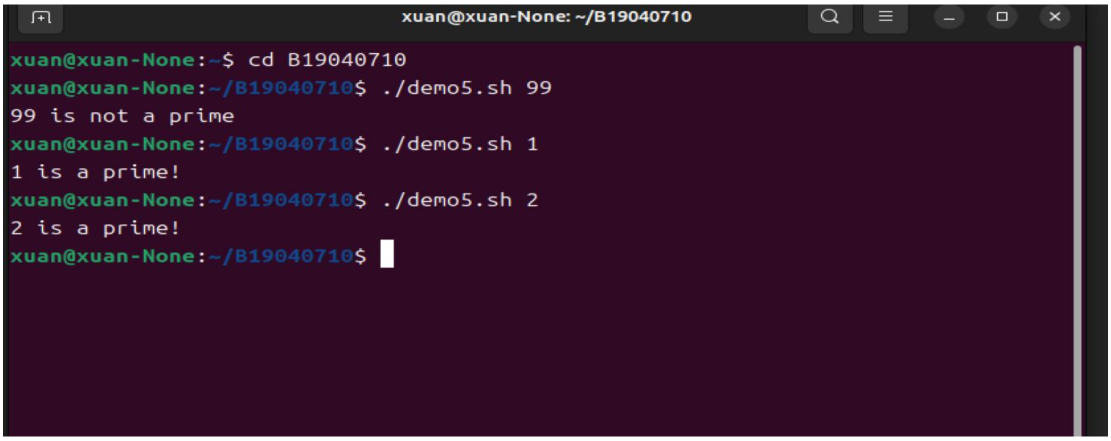
```
#!/bin/bash
count=0
for i in *
do
if test -x $i
then
count=`expr $count + 1`
fi
done
echo Total of $count files executable
```



```
xuan@xuan-None:~/B19040710$ ./demo4.sh
Total of 4 files excutable
xuan@xuan-None:~/B19040710$ ls
王文轩2.txt  B19040710.txt  demo1.sh  demo2.sh  demo3.sh  demo4.sh
xuan@xuan-None:~/B19040710$
```

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 prime
echo "$1 is not a prime!"
fi
```



```
xuan@xuan-None:~$ cd B19040710
xuan@xuan-None:~/B19040710$ ./demo5.sh 99
99 is not a prime
xuan@xuan-None:~/B19040710$ ./demo5.sh 1
1 is a prime!
xuan@xuan-None:~/B19040710$ ./demo5.sh 2
2 is a prime!
xuan@xuan-None:~/B19040710$
```