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
```

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
```

```
jh@jh-virtual-machine:~/other$ chmod u+s 111.sh
jh@jh-virtual-machine:~/other$ ./111.sh
bash: ./111.sh: Permission denied
jh@jh-virtual-machine:~/other$ chmod u+x 111.sh
jh@jh-virtual-machine:~/other$ ./111.sh
./111.sh: line 3: hour: command not found
./111.sh: line 25: syntax error near unexpected token `newline'
./111.sh: line 25: `Esac'
jh@jh-virtual-machine:~/other$ ./111.sh
Good morining !!
jh@jh-virtual-machine:~/other$
```


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
```

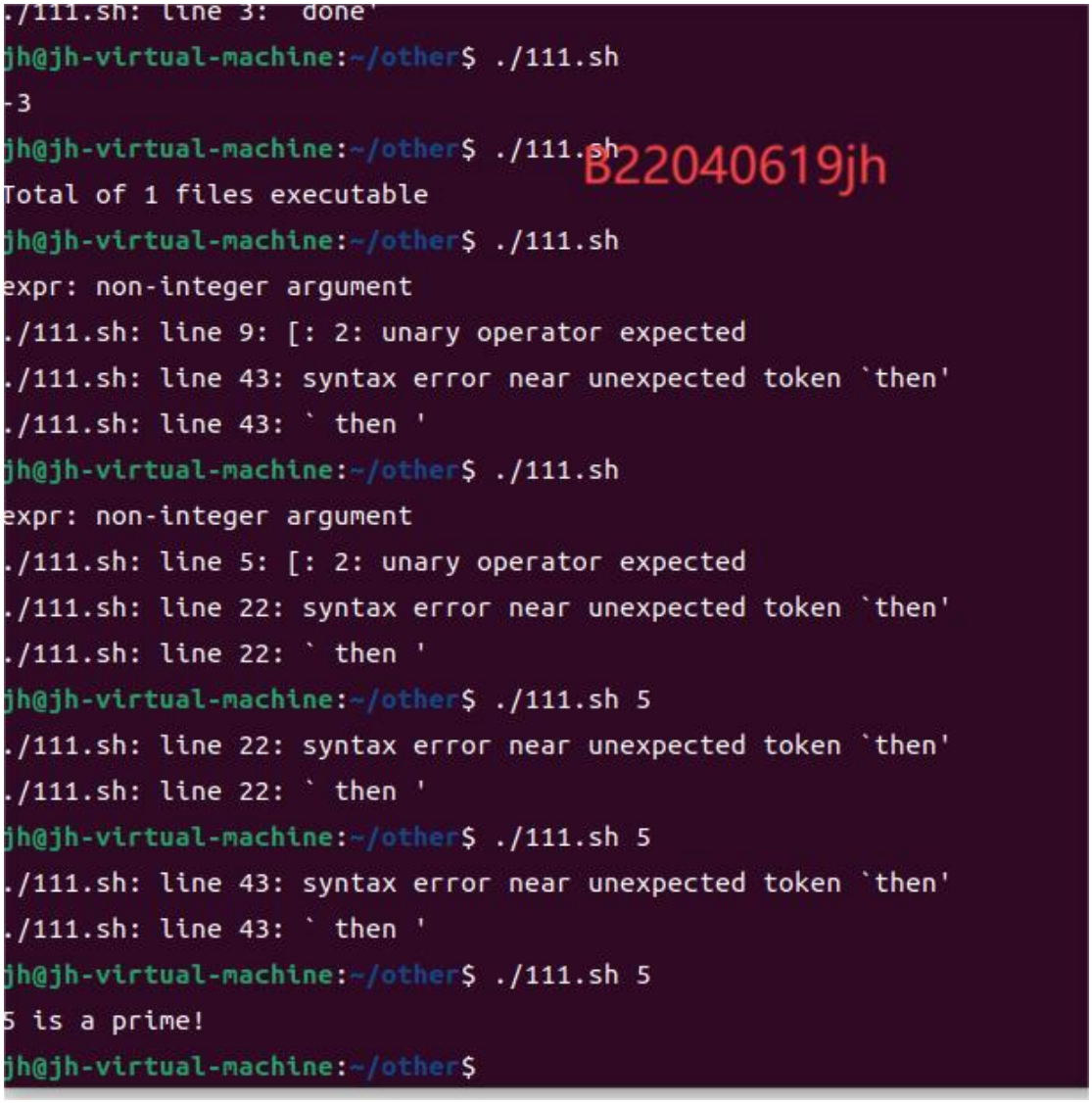
4. Calculate the number of executive file in the current directory.

```
#!/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
```

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
```

```
jh@jh-virtual-machine:~/other$ chmod u+x 111.sh
jh@jh-virtual-machine:~/other$ ./111.sh
./111.sh: line 3: hour: command not found
./111.sh: line 25: syntax error near unexpected token `newline'
./111.sh: line 25: `Esac'
jh@jh-virtual-machine:~/other$ ./111.sh
Good morining !!
jh@jh-virtual-machine:~/other$ ./111.sh
Enter the first integer:
1
Enter the second integer:
2
1 is less than 2
jh@jh-virtual-machine:~/other$ ./111.sh
./111.sh: line 2: for: command not found
./111.sh: line 3: syntax error near unexpected token `do'
./111.sh: line 3: `do '
jh@jh-virtual-machine:~/other$ ./111.sh
./111.sh: line 2: for: command not found
./111.sh: line 3: syntax error near unexpected token `done'
./111.sh: line 3: `done'
jh@jh-virtual-machine:~/other$ ./111.sh
-3
jh@jh-virtual-machine:~/other$
```


./111.sh: line 3: done'
jh@jh-virtual-machine:~/other$ ./111.sh
-3
jh@jh-virtual-machine:~/other$ ./111.sh
B22040619jh
Total of 1 files executable
jh@jh-virtual-machine:~/other$ ./111.sh
expr: non-integer argument
./111.sh: line 9: [: 2: unary operator expected
./111.sh: line 43: syntax error near unexpected token `then'
./111.sh: line 43: ` then '
jh@jh-virtual-machine:~/other$ ./111.sh
expr: non-integer argument
./111.sh: line 5: [: 2: unary operator expected
./111.sh: line 22: syntax error near unexpected token `then'
./111.sh: line 22: ` then '
jh@jh-virtual-machine:~/other$ ./111.sh 5
./111.sh: line 22: syntax error near unexpected token `then'
./111.sh: line 22: ` then '
jh@jh-virtual-machine:~/other$ ./111.sh 5
./111.sh: line 43: syntax error near unexpected token `then'
./111.sh: line 43: ` then '
jh@jh-virtual-machine:~/other$ ./111.sh 5
5 is a prime!
jh@jh-virtual-machine:~/other$