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
```

```
b22040624@b22040624-virtual-machine:~/Linux2$ vim test1.sh
b22040624@b22040624-virtual-machine:~/Linux2$ chmod +x ./test1.sh
b22040624@b22040624-virtual-machine:~/Linux2$ ./test1.sh
./test1.sh: 行 2: hour: 未找到命令
./test1.sh: 行 13: 未预期的记号 "newline" 附近有语法错误
./test1.sh: 行 13: `Esac'
b22040624@b22040624-virtual-machine:~/Linux2$ ^C
b22040624@b22040624-virtual-machine:~/Linux2$ ./test1.sh
Good morining !!
b22040624@b22040624-virtual-machine:~/Linux2$
```

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
```

```
b22040624@b22040624-virtual-machine:~/Linux2$ vim test2.sh
b22040624@b22040624-virtual-machine:~/Linux2$ chmod +x ./test2.sh
b22040624@b22040624-virtual-machine:~/Linux2$ ./test2.sh
Enter the first integer:
1
Enter the second integer:
2
 is less than 2
b22040624@b22040624-virtual-machine:~/Linux2$
```

```
b22040624@b22040624-virtual-machine:~/Linux2$ vim test3.sh
b22040624@b22040624-virtual-machine:~/Linux2$ chmod +x ./test3.sh
b22040624@b22040624-virtual-machine:~/Linux2$ ./test3.sh
-3
b22040624@b22040624-virtual-machine:~/Linux2$
```

```
b22040624@b22040624-virtual-machine:~/Linux2$ vim test4.sh
b22040624@b22040624-virtual-machine:~/Linux2$ chmod +x ./test4.sh
b22040624@b22040624-virtual-machine:~/Linux2$ ./test4.sh
Total of 4 files executable
b22040624@b22040624-virtual-machine:~/Linux2$
```

```
b22040624@b22040624-virtual-machine:~/Linux2$ vim test5.sh
b22040624@b22040624-virtual-machine:~/Linux2$ chmod
chmod：缺少操作对象
请尝试执行 "chmod --help" 来获取更多信息。
b22040624@b22040624-virtual-machine:~/Linux2$ chmod +x ./test5.sh
b22040624@b22040624-virtual-machine:~/Linux2$ ./test5.sh
expr：语法错误：未预期的参数 "2"
./test5.sh：第 5 行：  [：2：需要一元运算符
 is a prime!
b22040624@b22040624-virtual-machine:~/Linux2$ ^C
b22040624@b22040624-virtual-machine:~/Linux2$ ./test5.sh 6
6 is not a prime!
b22040624@b22040624-virtual-machine:~/Linux2$
```