实验二

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

打开(O) *2_1.sh ~/linuxB22040503/Experiment2

*try

```
1 #!/bin/bash
2 hour=`date +%H`
3  case $hour in
4  0[1-9] | 1[01] )
5  echo "Good morning !!"
6  ;;
7  1[234567] )
8  echo "Good afternoon !!"
9  ;;
10 * )
11 echo "Good evening !!"
12 ;;
13 esac
```

```
leo@leo-virtual-machine:~/linux_study/Experiment2$ ./time.sh
Good morning !!
```

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

打开(O) *2_2.sh ~/linuxB22040503/Experiment2

```
1 #!/bin/sh
2 echo "Enter the first integer:"
3 read first
4 echo "Enter the second integer:"
5 read second
6 if [ "$first" -gt "$second" ]
7 then
8 echo "$first is greater than $second"
9 elif [ "$first" -lt "$second" ]
10 then
11 echo "$first is less than $second"
12 else
13 echo "$first is equal to $second"
14 fi
```

```
leo@leo-virtual-machine:~/linux_study/Experiment2$ ./number.sh
Enter the first integer:
2
Enter the second integer:
3
2 is less than 3
```

（3）Find the minimal value in a given list.

打开(O) 2_3.sh ~/linuxB22040503/Experiment2

```
#!/bin/bash
smallest=1000
for i in 8 2 18 0 -3 87
do
if test $i -lt $smallest
then
smallest=$i
fi
done
echo $smallest
```

```
leo@leo-virtual-machine:~/linux_study/Experiment2$ chmod u+x 2_3.sh
leo@leo-virtual-machine:~/linux_study/Experiment2$ ./2_3.sh
-3
```

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

打开(O) 2_4.sh ~/linuxB22040503/Experiment2

```
#!/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"
```

```
leo@leo-virtual-machine:~/linux_study/Experiment2$ touch 2_4.sh
leo@leo-virtual-machine:~/linux_study/Experiment2$ chmod u+x 2_4.sh
leo@leo-virtual-machine:~/linux_study/Experiment2$ ./2_4.sh
Total of 4 files executable
```

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

打开(O)

2_5.sh
~/linuxB22040503/Experiment2

```
1 prime()
2 {
3 flag=1
4 j=2
5 while [ $j -le `expr $1 / 2` ]
6 do
7 if [ `expr $1 % $j` -eq 0 ]
8 then
9 flag=0
10 break
11 fi
12 j=`expr $j + 1`
13 done
14 if [ $flag -eq 1 ]
15 then
16 return 1
17 else
18 return 0
19 fi
20 }
21
22 prime $1
23 if [ $? -eq 1 ]
24 then
25 echo "$1 is a prime!"
26 else
27 echo "$1 is not a prime!"
28 fi
```

```
leo@leo-virtual-machine:~/linux_study/Experiment2$ ./2_5.sh 6
6 is not a prime!
leo@leo-virtual-machine:~/linux_study/Experiment2$ ./2_5.sh 7
7 is a prime!
```