实验2
task1:

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
```

结果：

```
scsym@scsym-virtual-machine:~/下载/linux lab2$ touch test1.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ vim test1.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ chmod +x test1.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ ./test1.sh
Good morning !!
```

task2:

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
```

结果：

```
scsym@scsym-virtual-machine:~/下载/linux lab2$ vim test2.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ chmod +x test2.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ ./test2.sh
Enter the first integer:
3
Enter the second integer:
2
3 is greater than 2
scsym@scsym-virtual-machine:~/下载/linux lab2$
```

task3：

3. Find the minimal value in a given list.

```bash
#!/bin/bash
smallest=10000
```

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

结果：

```
scsym@scsym-virtual-machine:~/下载/linux lab2$ vim test3.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ chmod +x test3.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ ./test3.sh
The smallest number is: -3
scsym@scsym-virtual-machine:~/下载/linux lab2$
```

task4：

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

```bash
#!/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
```

结果

```
scsym@scsym-virtual-machine:~/下载/linux lab2$ chmod +x test4.sh
scsym@scsym-virtual-machine:~/下载/linux lab2$ ./test4.sh
Total of 4 executable files
scsym@scsym-virtual-machine:~/下载/linux lab2$
```

task5：

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
```

结果:

```
scsym@scsym-virtual-machine:~/下载/linux lab2$ ./test5.sh 7
7 is a prime!
scsym@scsym-virtual-machine:~/下载/linux lab2$
```