

题目 1:

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
```

截图:



The screenshot shows a terminal window with the following content:

```
wang@wang-virtual-machine: ~/LinuxSY2wxy
1 #!/bin/bash
2 #2-1
3 hour=`date +%H`
4 case $hour in
5 0[1-9] | 1[01] )
6 echo "Good morining !!"
7 ;;
8 1[234567] )
9 echo "Good afternoon !!"
10 ;;
11 *)
12 echo "Good evening !!"
13 ;;
14 esac
```

The terminal output shows the script being executed and the result:

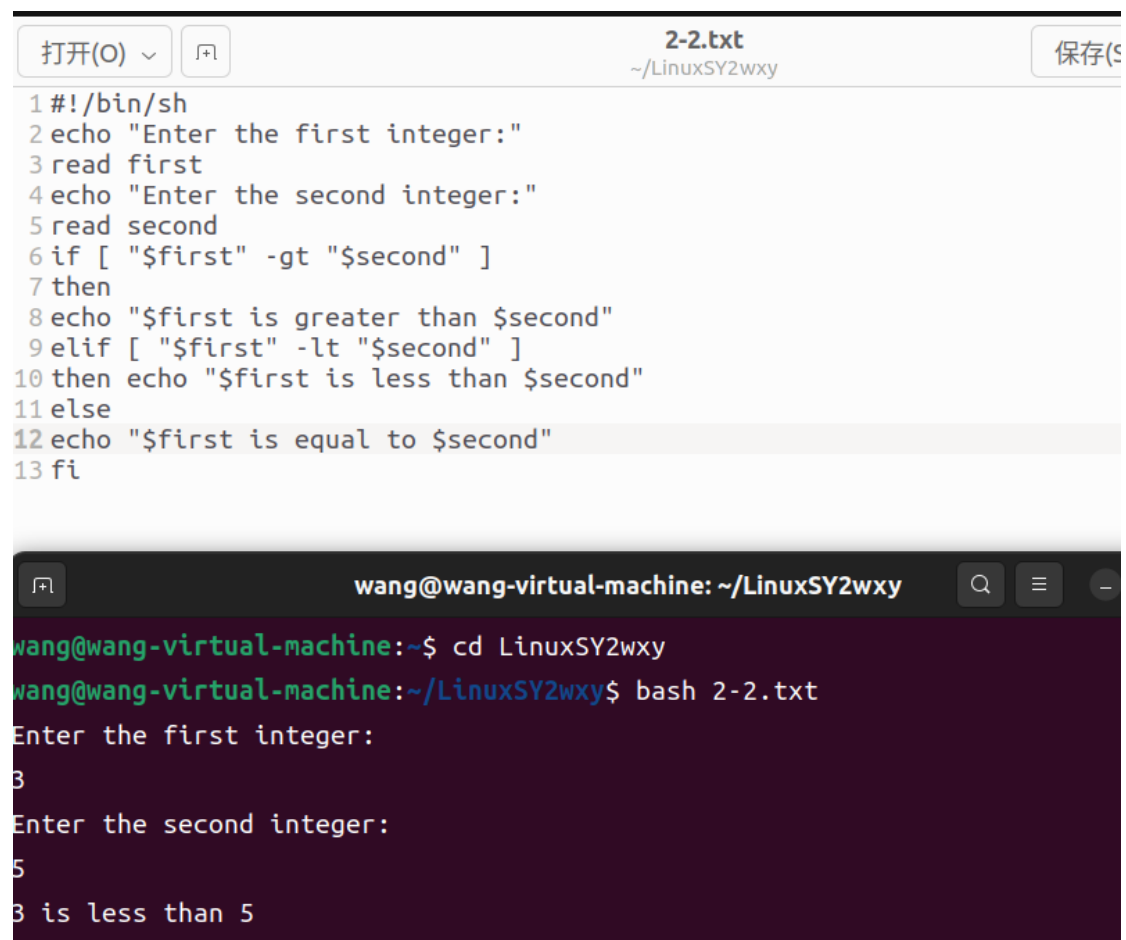
```
wang@wang-virtual-machine:~$ cd LinuxSY2wxy
wang@wang-virtual-machine:~/LinuxSY2wxy$ bash 2-1.txt
Good morning !!
```

题目 2:

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
```

截图:



The screenshot displays two windows from a Linux virtual machine. The top window is a text editor titled '2-2.txt' located at '~/LinuxSY2wxy'. It contains a shell script that prompts for two integers and compares them. The script uses 'if', 'then', 'elif', and 'fi' constructs to check if the first integer is greater than, less than, or equal to the second. The bottom window is a terminal with the prompt 'wang@wang-virtual-machine: ~/LinuxSY2wxy'. It shows the user navigating to the directory and running 'bash 2-2.txt'. The terminal output shows the script's execution: it prompts for the first integer (3) and the second integer (5), and then outputs '3 is less than 5'.

```
2-2.txt
~/LinuxSY2wxy
保存(S)

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

wang@wang-virtual-machine: ~/LinuxSY2wxy
wang@wang-virtual-machine:~$ cd LinuxSY2wxy
wang@wang-virtual-machine:~/LinuxSY2wxy$ bash 2-2.txt
Enter the first integer:
3
Enter the second integer:
5
3 is less than 5
```

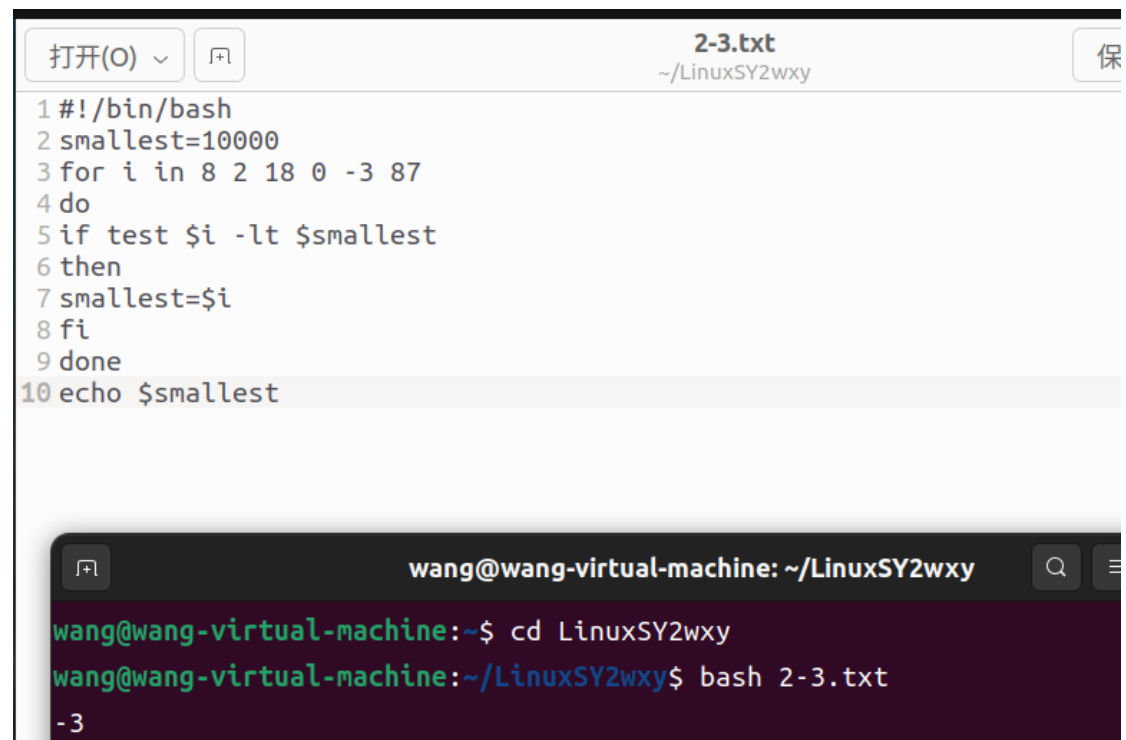
题目 3:

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
```

截图:



The screenshot displays a code editor window titled '2-3.txt' with the following content:

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

Below the code editor, a terminal window shows the execution of the script:

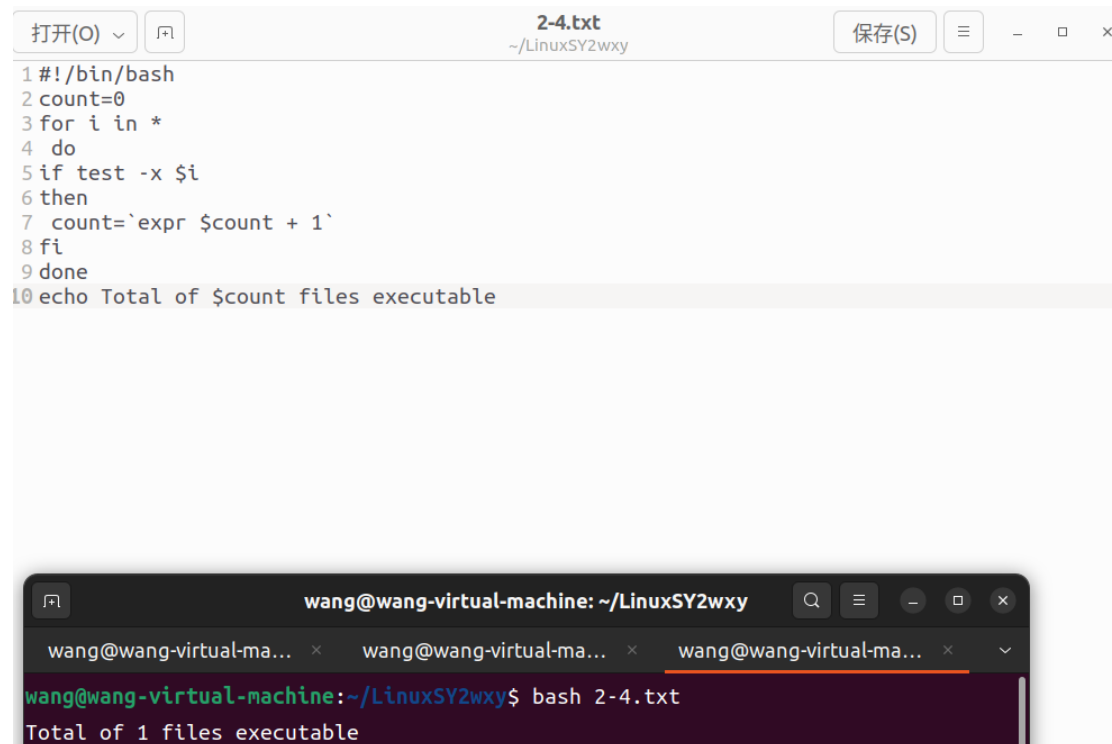
```
wang@wang-virtual-machine: ~/LinuxSY2wxy
wang@wang-virtual-machine:~$ cd LinuxSY2wxy
wang@wang-virtual-machine:~/LinuxSY2wxy$ bash 2-3.txt
-3
```

题目 4:

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
```

截图:




题目 5:

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
```

截图:



```
2-5.txt
~/LinuxSY2wxy
保存(S)

18 done
19 # 如果flag为1, 说明是素数, 返回1; 否则返回0
20 if [ $flag -eq 1 ]
21 then
22     return 1
23 else
24     return 0
25 fi
26 }
27
28 # 脚本主体开始
29 # 检查是否提供了参数
30 if [ $# -eq 0 ]; then
31     echo "Usage: $0 <number>"
32     exit 1
33 fi
34
35 # 调用函数并传递第一个参数
36 prime $1
37
38 wang@wang-virtual-machine: ~/LinuxSY2wxy
39 wang@wang-virtual-machine: ~/LinuxSY... x wang@wang-virtual-machine: ~/LinuxSY... x
40 wang@wang-virtual-machine:~/LinuxSY2wxy$ bash 2-5.txt 31
41 31 is a prime!
```