

南京邮电大学

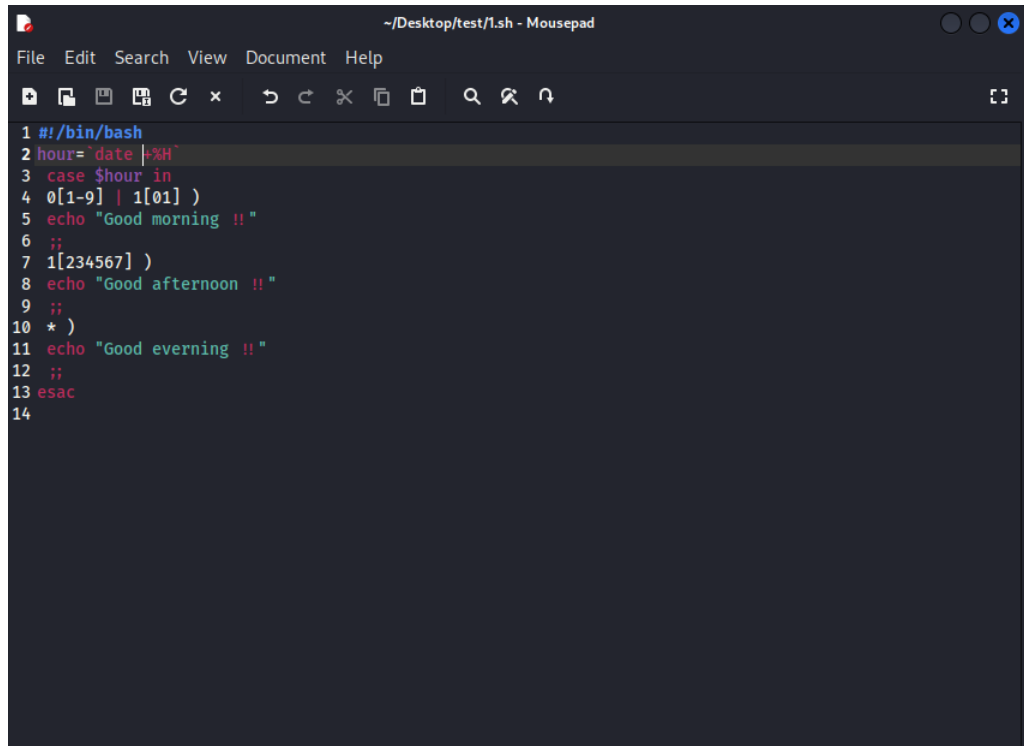
实验报告

(2024/ 2025 学年 第 一 学期)

课程名称	GNU/Linux 编程			
实验名称	实验二			
实验时间	2024	年 11	月 15	日
指导单位	计算机学院 网络空间安全系			
指导教师	王磊			

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学院(系)	计算机学院	专 业	信息安全

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



A screenshot of a text editor window titled "~ / Desktop / test / 1.sh - Mousepad". The window contains a shell script with the following content:

```
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 everning !!"
12 ;;
13 esac
14
```

注：esca 的 E 不应该大写，=两边没有空格；

Result:



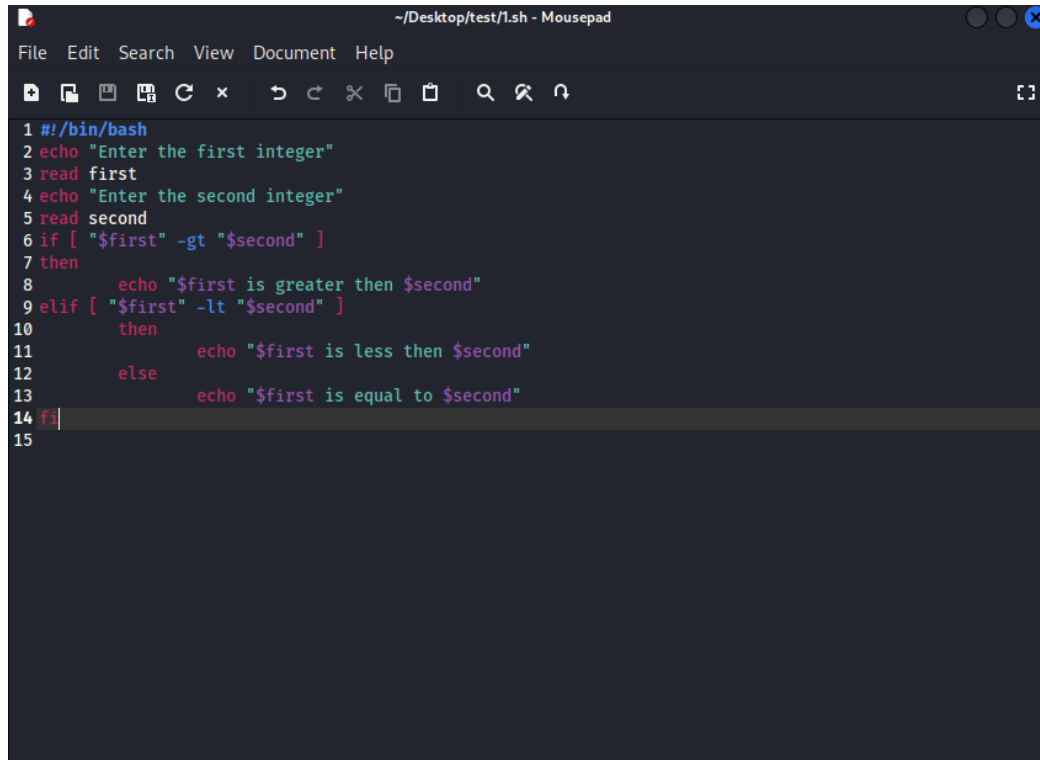
A screenshot of a terminal window titled "kumikom@kali: ~/Desktop/test". The terminal shows the execution of the script and the output of the 'date' command:

```
(kumikom@kali)-[~/Desktop/test]
$ ./1.sh
Good afternoon !!

(kumikom@kali)-[~/Desktop/test]
$ date
Sun Oct 27 16:40:38 CST 2024

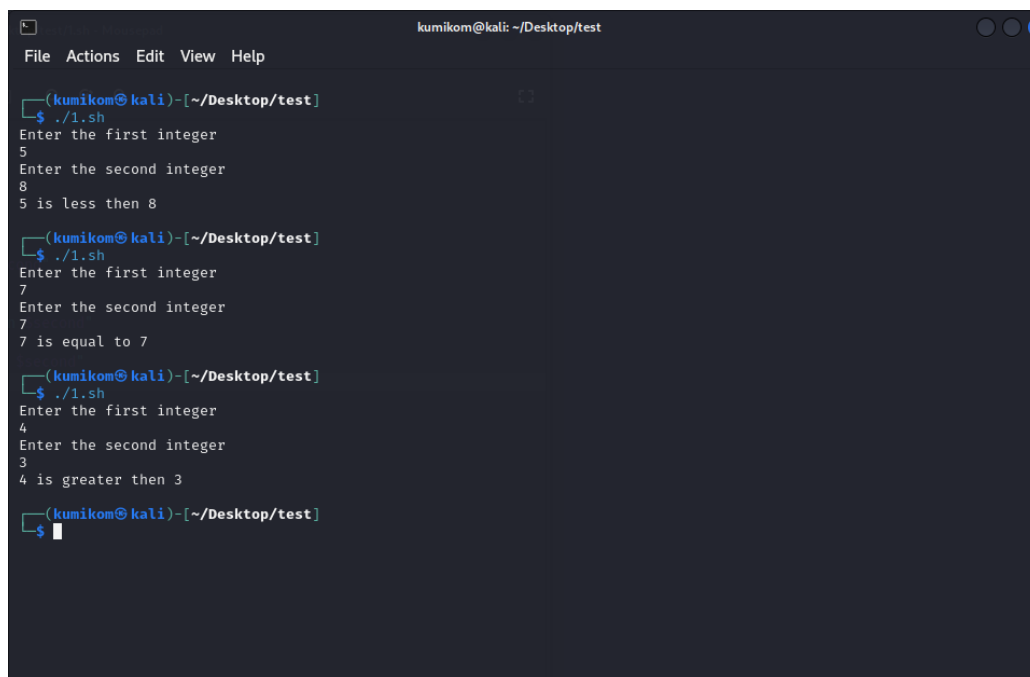
(kumikom@kali)-[~/Desktop/test]
$
```

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



```
1 #!/bin/bash
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 then $second"
9 elif [ "$first" -lt "$second" ]
10 then
11     echo "$first is less then $second"
12 else
13     echo "$first is equal to $second"
14 fi
15
```

Result:



```
kumikom@kali: ~/Desktop/test
File Actions Edit View Help

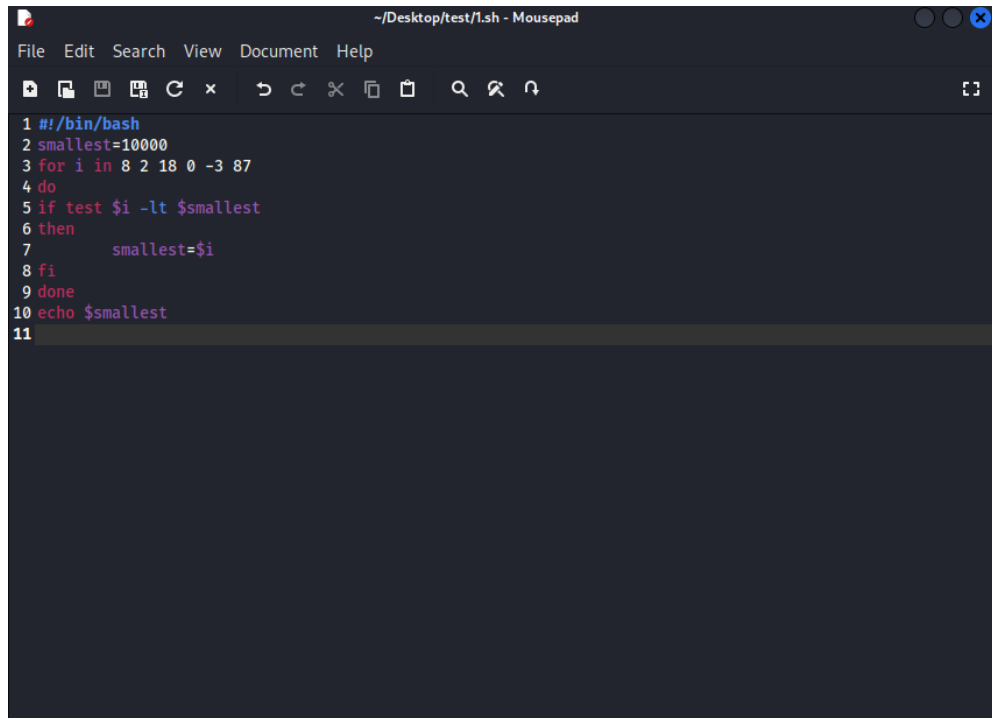
(kumikom@kali)-[~/Desktop/test]
$ ./1.sh
Enter the first integer
5
Enter the second integer
8
5 is less then 8

(kumikom@kali)-[~/Desktop/test]
$ ./1.sh
Enter the first integer
7
Enter the second integer
7
7 is equal to 7

(kumikom@kali)-[~/Desktop/test]
$ ./1.sh
Enter the first integer
4
Enter the second integer
3
4 is greater then 3

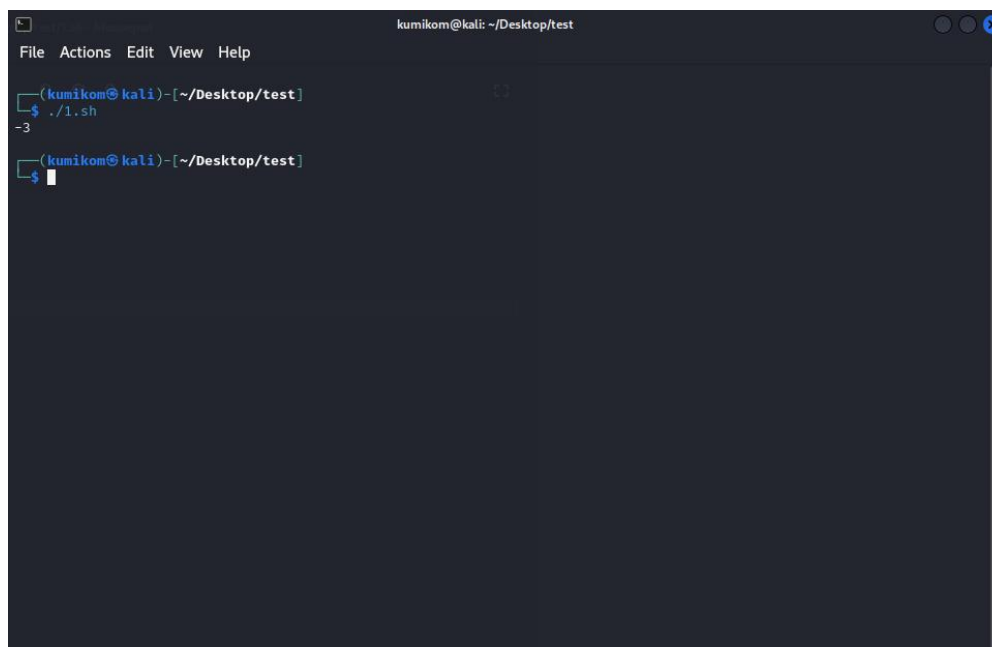
(kumikom@kali)-[~/Desktop/test]
$
```

3. Find the minimal value in a given list.



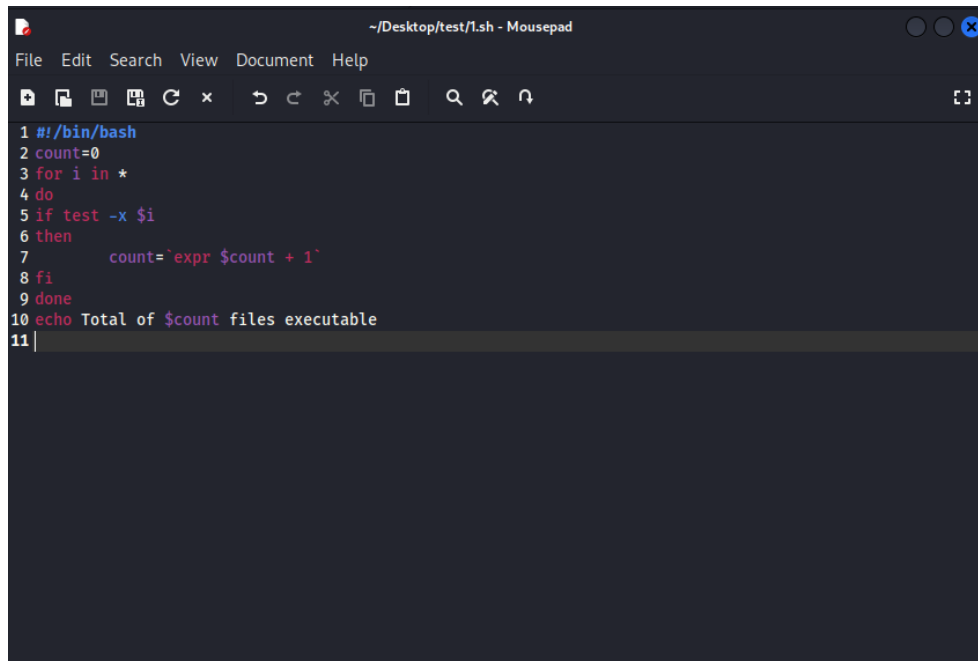
```
1 #!/bin/bash
2 smallest=10000
3 for i in 8 2 18 0 -3 87
4 do
5 if test $i -lt $smallest
6 then
7     smallest=$i
8 fi
9 done
10 echo $smallest
11
```

Result:



```
(kumikom@kali) - [~/Desktop/test]
$ ./1.sh
-3
(kumikom@kali) - [~/Desktop/test]
$
```

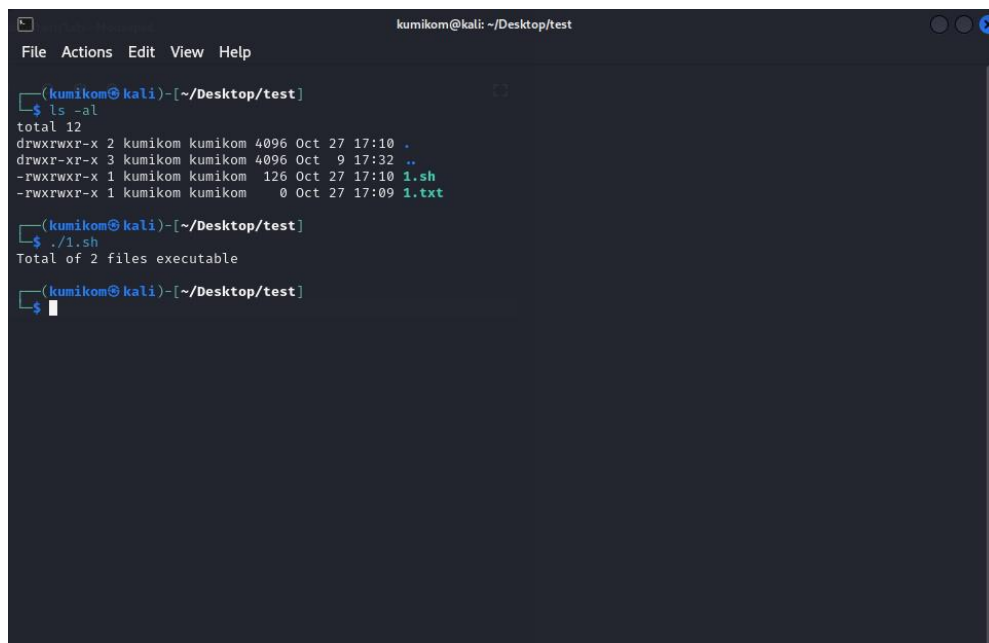
4. Calculate the number of executive file in the current directory.



A screenshot of a text editor window titled "~/Desktop/test/1.sh - Mousepad". The window contains a shell script with the following lines:

```
1 #!/bin/bash
2 count=0
3 for i in *
4 do
5 if test -x $i
6 then
7     count=`expr $count + 1`
8 fi
9 done
10 echo Total of $count files executable
11 |
```

Result:



A screenshot of a terminal window titled "kumikom@kali: ~/Desktop/test". The terminal shows the following commands and output:

```
(kumikom@kali)-[~/Desktop/test]
$ ls -al
total 12
drwxrwxr-x 2 kumikom kumikom 4096 Oct 27 17:10 .
drwxr-xr-x 3 kumikom kumikom 4096 Oct 9 17:32 ..
-rwxrwxr-x 1 kumikom kumikom 126 Oct 27 17:10 1.sh
-rwxrwxr-x 1 kumikom kumikom 0 Oct 27 17:09 1.txt

(kumikom@kali)-[~/Desktop/test]
$ ./1.sh
Total of 2 files executable

(kumikom@kali)-[~/Desktop/test]
$
```

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

```
~/Desktop/test/1.sh - Mousepad
File Edit Search View Document Help
1 #!/bin/bash
2 prime()
3 {
4     flag=1
5     j=2
6     while [ $j -le `expr $1 / 2` ]
7     do
8         if [ `expr $1 % $j` -eq 0 ]
9         then
10             flag=0
11             break
12         fi
13         j=`expr $j + 1`
14     done
15     if [ $flag -eq 1 ]
16     then
17         return 1
18     else
19         return 0
20     fi
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
29
```

Result:

```
kumikom@kali: ~/Desktop/test
File Actions Edit View Help
(kumikom@kali)-[~/Desktop/test]
$ ./1.sh 13
13 is a prime!
(kumikom@kali)-[~/Desktop/test]
$ ./1.sh 16
16 is not a prime!
(kumikom@kali)-[~/Desktop/test]
$
```