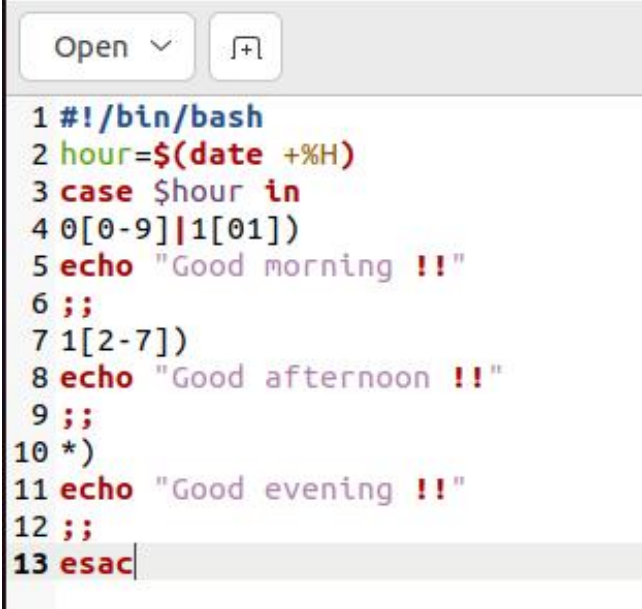


Experiment 2

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
```

A screenshot of a code editor window. The window has a title bar with 'Open' and a file icon. The code is displayed with syntax highlighting: line numbers 1-13 on the left, shebang on line 1, variable assignment on line 2, case statement on line 3, time ranges on line 4, echo statements on lines 5, 8, and 11, semicolons on lines 6, 9, and 12, and the 'esac' keyword on line 13. The cursor is at the end of line 13.

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

```

zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ touch script1.sh script2.sh script3.sh script4.sh script5.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script1.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./script1.sh
bash: ./script1.sh: Permission denied
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ chmod +x script1.sh script2.sh script3.sh script4.sh script5.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./script1.sh
./script1.sh: line 2: hour: command not found
./script1.sh: line 13: syntax error near unexpected token `newline'
./script1.sh: line 13: `Esa'
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ edit script1.sh
Error: no "edit" mailcap rules found for type "application/x-sh"
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script1.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./script1.sh
Good morning !!

```

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

```

```
Open ▾ [📁]

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

zouxin@zouxin-virtual-machine:~/Desktop/B23040920linux$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920linux$ gedit script2.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920linux$ ./script2.sh
Enter the first integer:
3
Enter the second integer:
6
3 is less than 6
```

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
```

```
Open ▾ [🔍]
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
```

```
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script3.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./script3.sh
-3
```

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
```


```
Open ▾ [icon]
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|

zouxin@zouxin-virtual-machine:~/Desktop/B23040920linux$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920linux$ gedit script4.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920linux$ ./script4.sh
Total of 5 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
if [ $? -eq 1 ]
```

```
then
echo "$1 is a prime!"
else
echo "$1 is not a prime!"
fi
```

Open ▾ 

```
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 prime $1
22 if [ $? -eq 1 ]
23 then
24   echo "$1 is a prime!"
25 else
26   echo "$1 is not a prime!"
27 fi
```

```
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script5.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./script5.sh
expr: syntax error: unexpected argument '2'
./script5.sh: line 5: [: 2: unary operator expected
is a prime!
```