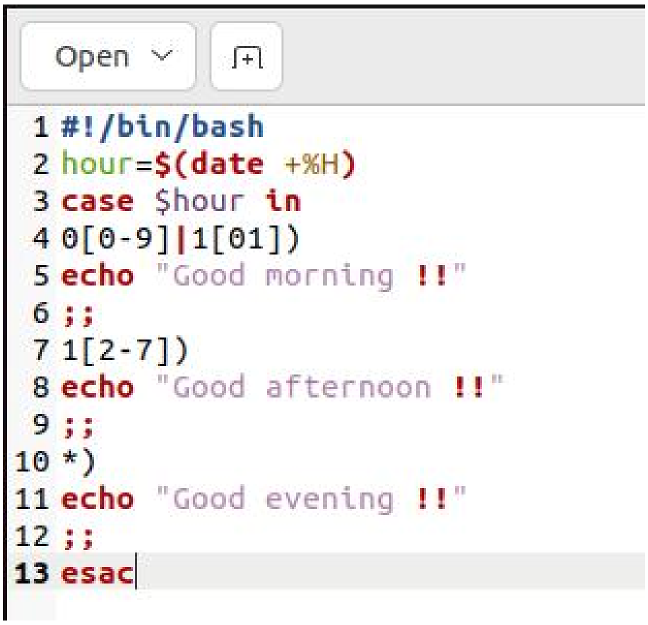
Experiment 2

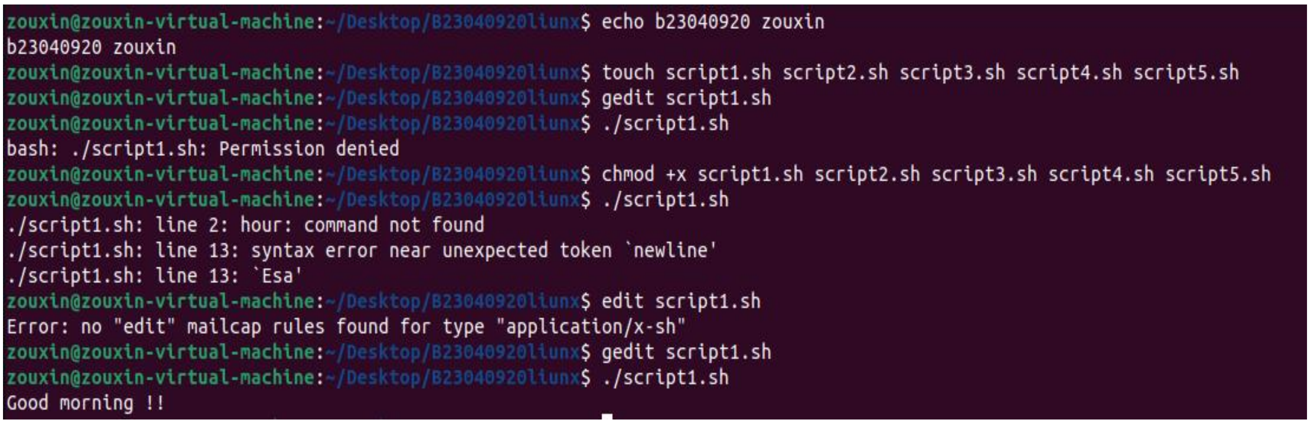
use a editor to finishe the following shell scripts, and run them in Linux system.

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
```



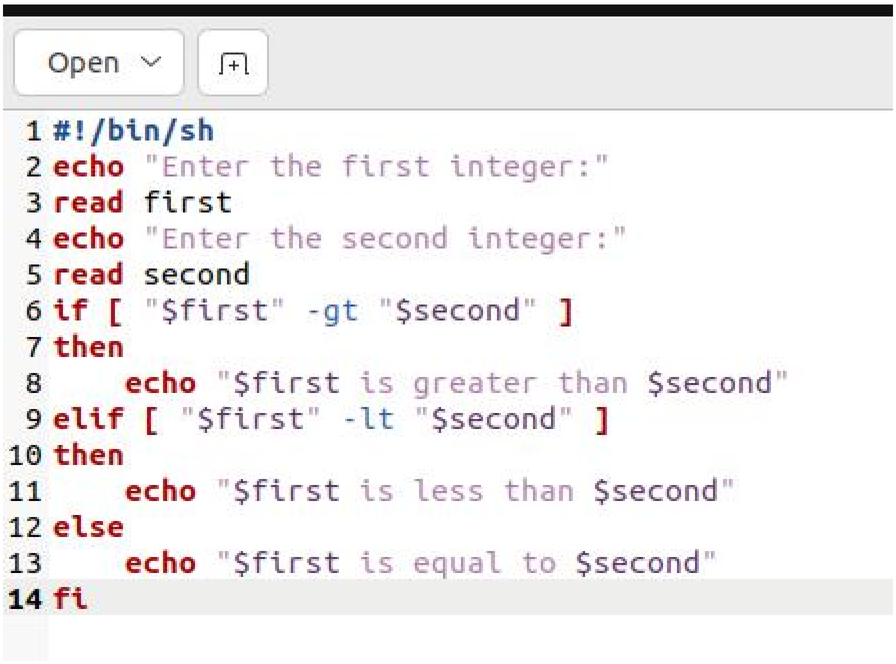
```
#!/bin/bash
hour=$(date +%H)
case $hour in
0[0-9]|1[01])
echo "Good morning !!"
;;
1[2-7])
echo "Good afternoon !!"
;;
*)
echo "Good evening !!"
;;
esac
```



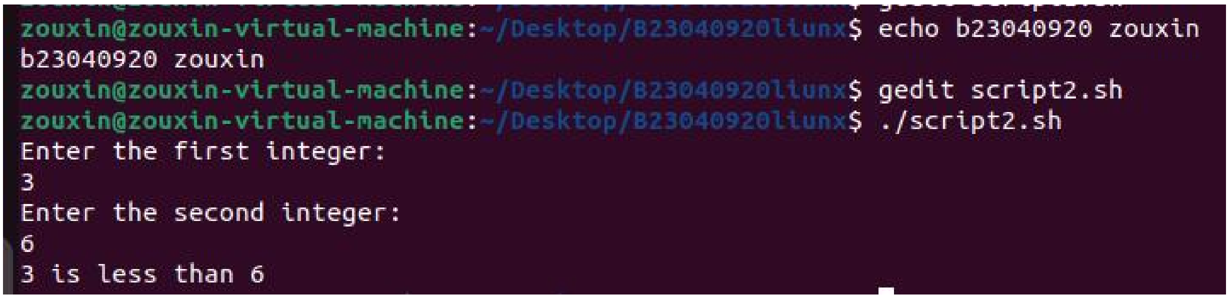
```
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ touch script1.sh script2.sh script3.sh script4.sh script5.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script1.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./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
```



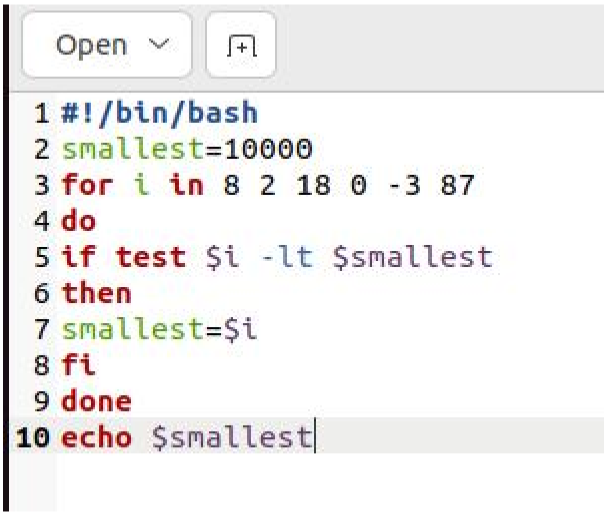
```
#!/bin/sh
echo "Enter the first integer:"
read first
echo "Enter the second integer:"
read second
if [ "$first" -gt "$second" ]
then
    echo "$first is greater than $second"
elif [ "$first" -lt "$second" ]
then
    echo "$first is less than $second"
else
    echo "$first is equal to $second"
fi
```



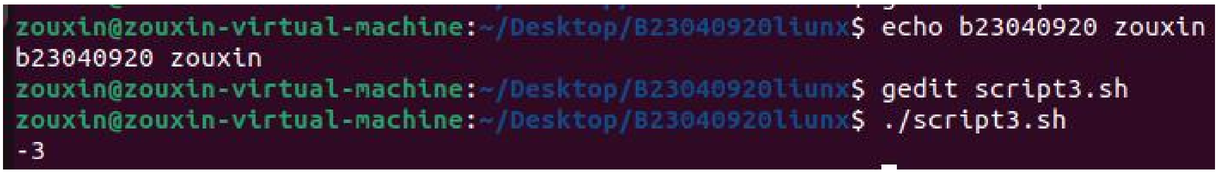
```
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script2.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./script2.sh
Enter the first integer:
3
Enter the second integer:
6
3 is 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
```



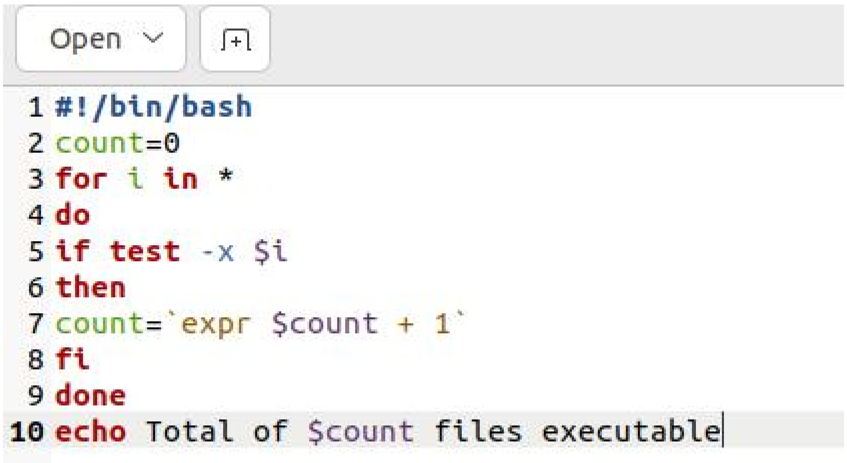
```
#!/bin/bash
smallest=10000
for i in 8 2 18 0 -3 87
do
if test $i -lt $smallest
then
smallest=$i
fi
done
echo $smallest
```



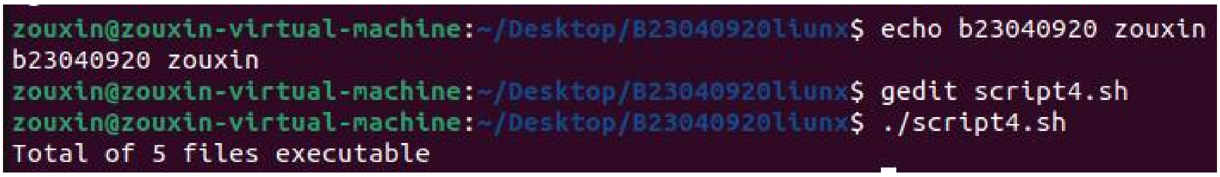
```
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script3.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./script3.sh
-3
```

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
```



```
#!/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
```



```
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ echo b23040920 zouxin
b23040920 zouxin
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ gedit script4.sh
zouxin@zouxin-virtual-machine:~/Desktop/B23040920liunx$ ./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 ]
```

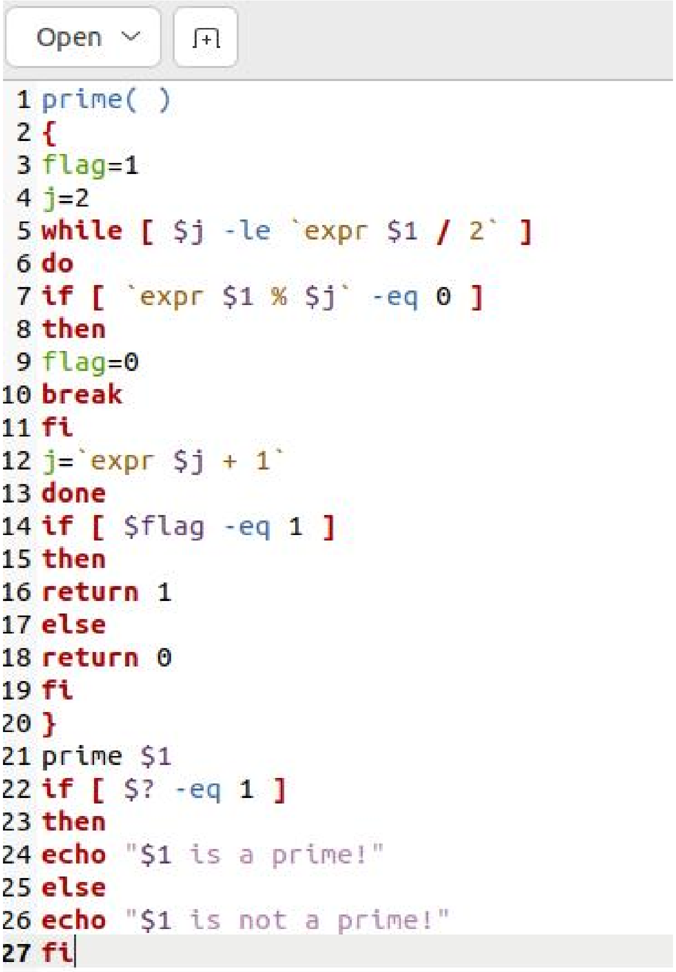
then

echo ″$1 is a prime!″

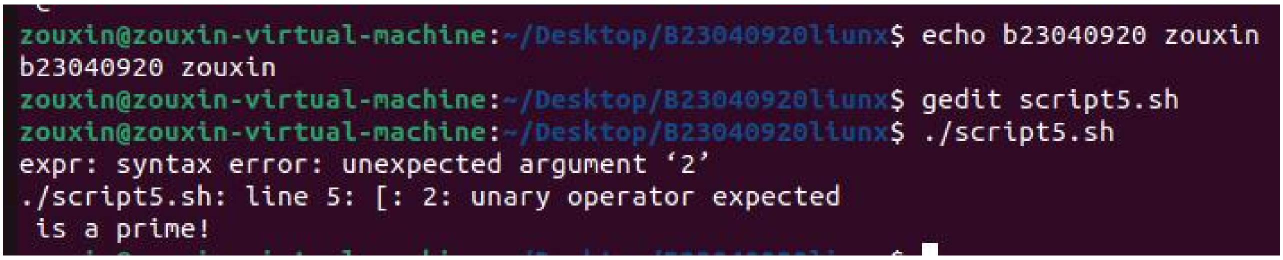
else

echo ″$1 is not a prime!″

Fi



```
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
```



```
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!
```