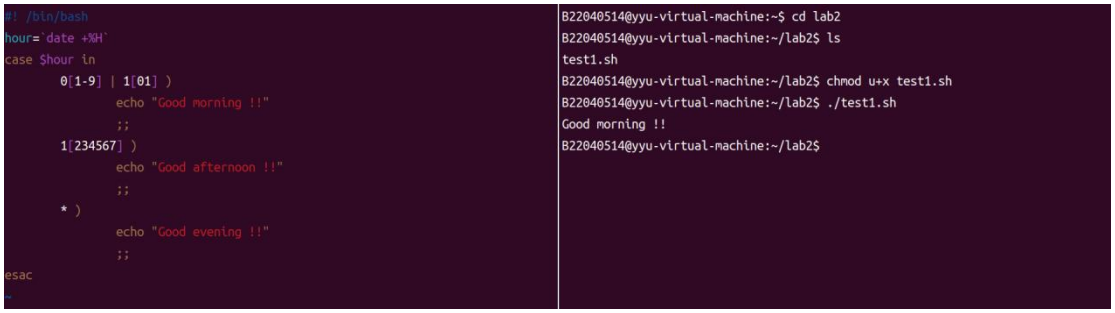
1. Obtain the system time, and check whether it is in the morning, afternoon, or evening.

```
#!/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[1-9] | 1[01] )
                echo "Good morning !!"
                ;;
        1[234567] )
                echo "Good afternoon !!"
                ;;
        * )
                echo "Good evening !!"
                ;;
esac
```

```
B22040514@yyu-virtual-machine:~$ cd lab2
B22040514@yyu-virtual-machine:~/lab2$ ls
test1.sh
B22040514@yyu-virtual-machine:~/lab2$ chmod u+x test1.sh
B22040514@yyu-virtual-machine:~/lab2$ ./test1.sh
Good morning !!
B22040514@yyu-virtual-machine:~/lab2$
```

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/bash
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
~
~
~
~
~
~
~
~
~
```

```
B22040514@yyu-virtual-machine:~/lab2$ ls
test1.sh  test2.sh
B22040514@yyu-virtual-machine:~/lab2$ chmod u+x test2.sh
B22040514@yyu-virtual-machine:~/lab2$ ./test2.sh
Enter the first integer:
4
Enter the second integer:
5
4 is less than 5
B22040514@yyu-virtual-machine:~/lab2$ ./test2.sh
Enter the first integer:
5
Enter the second integer:
5
5 is equal to 5
B22040514@yyu-virtual-machine:~/lab2$ ./test2.sh
Enter the first integer:
5
Enter the second integer:
4
5 is greater than 4
B22040514@yyu-virtual-machine:~/lab2$
```

3. Find the minimal value in a given list.

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

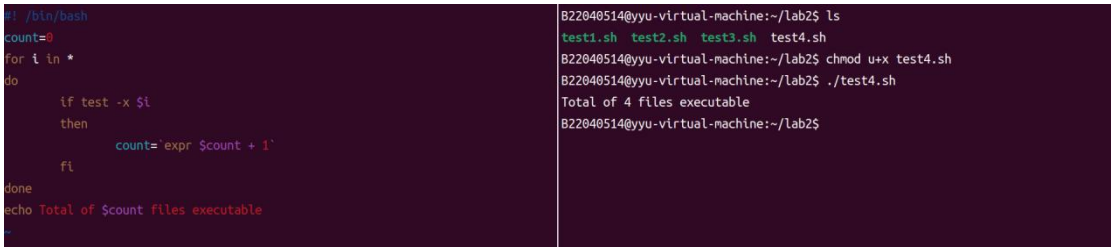
```
for i in 8 2 18 0 -3 87
do
if test $i -lt $smallest
then
 smallest=$i
fi
done
echo $smallest
```

```
#! /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
~
```

```
B22040514@yyu-virtual-machine:~/lab2$ ls
test1.sh  test2.sh  test3.sh
B22040514@yyu-virtual-machine:~/lab2$ chmod u+x test3.sh
B22040514@yyu-virtual-machine:~/lab2$ ./test3.sh
-3
B22040514@yyu-virtual-machine:~/lab2$
```

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
```



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
```

```
B22040514@yyu-virtual-machine:~/lab2$ chmod u+x test5.sh
B22040514@yyu-virtual-machine:~/lab2$ ls
test1.sh  test2.sh  test3.sh  test4.sh  test5.sh
B22040514@yyu-virtual-machine:~/lab2$ ./test5.sh 4
4 is not a prime!
B22040514@yyu-virtual-machine:~/lab2$ ./test5.sh 13
13 is a prime!
B22040514@yyu-virtual-machine:~/lab2$
```