

## 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
```

### Computational results

```
libolin@libolin-virtual-machine:~$ touch 2-1.sh
libolin@libolin-virtual-machine:~$ chmod u+x 2-1.sh
libolin@libolin-virtual-machine:~$ ./2-1.sh
Good afternoon!!
libolin@libolin-virtual-machine:~$ date +%H
14
libolin@libolin-virtual-machine:~$ cat 2-1.sh
#!/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
```

## 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

```

## Computational results

```

libolin@libolin-virtual-machine:~$ touch 2-2.sh
libolin@libolin-virtual-machine:~$ chmod u+x 2-2.sh
libolin@libolin-virtual-machine:~$ ./2-2.sh
Enter the first integer:
5
Enter the second integer:
4
5 is greater than 4
libolin@libolin-virtual-machine:~$ ./2-2.sh
Enter the first integer:
4
Enter the second integer:
4
4 is equal to 4
libolin@libolin-virtual-machine:~$ ./2-2.sh
Enter the first integer:
3
Enter the second integer:
4
3 is less than 4

```

```

libolin@libolin-virtual-machine:~$ cat 2-2.sh
#!/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

```

## 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
```

## Computational results

```
libolin@libolin-virtual-machine:~$ touch 2-3.sh
libolin@libolin-virtual-machine:~$ chmod u+x 2-3.sh
libolin@libolin-virtual-machine:~$ ./2-3.sh
-3
```

```
libolin@libolin-virtual-machine:~$ cat 2-3.sh
#!/bin/sh
smallest=10000
for i in 8 2 18 0 -3 87
do
if test $i -lt $smallest
then
    smallest=$i
fi
done
echo "$smallest"
```

## 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
```

## Computational results

```

libolin@libolin-virtual-machine:~$ touch 2-4.sh
libolin@libolin-virtual-machine:~$ chmod u+x 2-4.sh
libolin@libolin-virtual-machine:~$ ./2-4.sh
Total of 15 files executable
libolin@libolin-virtual-machine:~$ ll
total 116
drwxr-x--- 15 libolin libolin 4096 10月 15 14:52 ./
drwxr-xr-x  4 root    root    4096 10月 14 10:27 ../
-rw-rw-r--  1 libolin libolin   82  9月 23 11:00 1.txt
-rwxrw-r--  1 libolin libolin  155 10月 15 14:09 2-1.sh*
-rwxrw-r--  1 libolin libolin  288 10月 15 14:25 2-2.sh*
-rwxrw-r--  1 libolin libolin  122 10月 15 14:29 2-3.sh*
-rwxrw-r--  1 libolin libolin  125 10月 15 14:52 2-4.sh*
-rwxrw-r--  1 libolin libolin  125 10月 15 14:51 2-7.sh*
drwxrwxr-x  2 libolin libolin 4096 10月 14 09:53 B22040701/
-rw-rw-r--  1 libolin libolin   12 10月 14 09:56 B22040701.txt
-rw-----  1 libolin libolin  733 10月 15 14:23 .bash_history
-rw-r--r--  1 libolin libolin  220  9月 22 14:25 .bash_logout
-rw-r--r--  1 libolin libolin 3771  9月 22 14:25 .bashrc
drwx----- 10 libolin libolin 4096 10月 14 09:49 .cache/
drwx----- 13 libolin libolin 4096 10月 14 11:11 .config/
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Desktop/
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Documents/
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Downloads/
-rw-rw-r--  1 libolin libolin  137 10月 14 11:11 file.txt
-rw-rw-r--  1 libolin libolin   12 10月 14 09:57 libolin2.txt
drwx-----  3 libolin libolin 4096  9月 22 14:37 .local/
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Music/
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Pictures/
-rw-r--r--  1 libolin libolin   807  9月 22 14:25 .profile
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Public/
drwx-----  3 libolin libolin 4096  9月 22 14:37 snap/
-rw-r--r--  1 libolin libolin    0 10月 14 09:59 .sudo_as_admin_successful
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Templates/
-rw-rw-r--  1 libolin libolin  137 10月 14 11:12 textfile
drwxr-xr-x  2 libolin libolin 4096  9月 22 14:37 Videos/

```

```

libolin@libolin-virtual-machine:~$ cat 2-4.sh
#!/bin/sh
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

```

## Computational results

```

libolin@libolin-virtual-machine:~$ touch 2-5.sh
libolin@libolin-virtual-machine:~$ chmod u+x 2-5.sh
libolin@libolin-virtual-machine:~$ ./2-5.sh
please enter a number:
10
10 is not a prime!
libolin@libolin-virtual-machine:~$ ./2-5.sh
please enter a number:
3
3 is a prime!

```

```
libolin@libolin-virtual-machine:~$ cat 2-5.sh
prime()
{
flag=1
j=2
echo "please enter a number:"
read number
while [ $j -le `expr $number / 2` ]
do
if [ `expr $number % $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 [ $? -eq 1 ]
then
echo "$number is a prime!"
else
echo "$number is not a prime!"
fi
```