

2-1

```

Open  e2-1.sh  Save

1 #!/bin/bash
2 |
3 # 获取当前小时 (24小时制)
4 hour=$(date +%H)
5
6 # 根据小时判断时间段
7 case $hour in
8     0[0-9] | 1[0-1] )      # 00点-11点
9         echo "Good morning Q23010325ZYK ! ! "
10        ;;
11    1[2-7] )              # 12点-17点
12        echo "Good afternoon Q23010325ZYK ! ! "
13        ;;
14    * )                   # 18点-23点
15        echo "Good evening Q23010325ZYK ! ! "
16        ;;
17 esac

```

Dec 11 07:24 • yukun@ubuntu: ~

```

yukun@ubuntu:~$ ls -la
total 108
drwxr-xr-x 18 yukun yukun 4096 Dec 11 07:22 .
drwxr-xr-x  3 root  root  4096 Nov 20 19:17 ..
-rw-rw-r--  1 yukun yukun  259 Dec  4 18:19 backup.tar.gz
-rw-----  1 yukun yukun 1031 Dec 11 07:22 .bash_history
-rw-r--r--  1 yukun yukun  220 Nov 20 07:17 .bash_logout
-rw-r--r--  1 yukun yukun 3771 Nov 20 07:17 .bashrc
drwxrwxr-x 13 yukun yukun 4096 Nov 20 07:26 .cache
drwx----- 13 yukun yukun 4096 Nov 20 18:42 .config
-r-srws--T  1 yukun yukun    0 Nov 21 20:25 demo
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Desktop
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Documents
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Downloads
-rwxrwxr-x  1 yukun yukun  417 Dec 11 07:22 e2-1.sh
drwx-----  3 yukun yukun 4096 Nov 20 07:24 .gnupg
drwxr-xr-x  3 yukun yukun 4096 Nov 20 07:24 .local
drwx-----  4 yukun yukun 4096 Nov 20 07:26 .mozilla
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Music
drwxrwxr-x  2 yukun yukun 4096 Dec  4 18:15 others
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Pictures
-rw-r--r--  1 yukun yukun  807 Nov 20 07:17 .profile
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Public
drwxrwxr-x  2 yukun yukun 4096 Nov 20 18:30 q23010325
-rw-rw-r--  1 yukun yukun   12 Nov 20 18:38 q23010325.txt
drwx-----  3 yukun yukun 4096 Nov 20 07:26 snap
-rw-r--r--  1 yukun yukun    0 Nov 20 18:53 .sudo_as_admin_successful
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Templates
-rw-rw-r--  1 yukun yukun  138 Dec  4 18:41 textfile
drwxr-xr-x  2 yukun yukun 4096 Nov 20 07:24 Videos
-rw-rw-r--  1 yukun yukun   12 Nov 20 18:39 Zyukun2.txt
yukun@ubuntu:~$ chmod +x e2-1.sh
yukun@ubuntu:~$ ./e2-1.sh
Good morning Q23010325ZYK ! !
yukun@ubuntu:~$

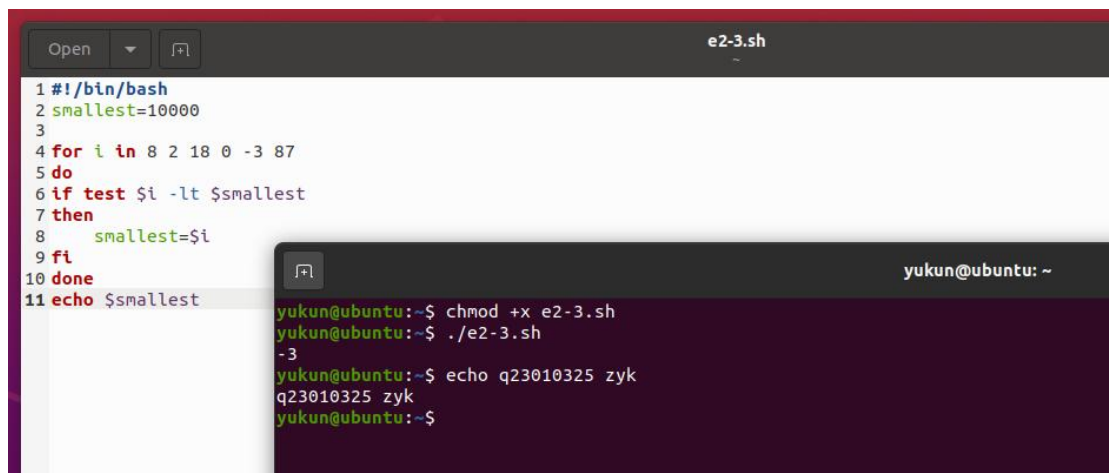
```

2-2

```
yukun@ubuntu:~$ ./e2-2.sh
Enter the first integer:
2
Enter the second integer:
5
2 is less than 5
yukun@ubuntu:~$ ./e2-2.sh
Enter the first integer:
5
Enter the second integer:
2
5 is greater than 2
yukun@ubuntu:~$ echo q23010325 zyk
q23010325 zyk
yukun@ubuntu:~$
```

```
Open  e2-2.sh  Save
1 #!/bin/bash
2 echo "Enter the first integer:"
3 read first
4 echo "Enter the second integer:"
5 read second
6
7 if ! [[ "$first" =~ ^-[0-9]+$ ]]; then
8     echo "Error: First input is not a valid integer!"
9     exit 1
10 fi
11
12 if ! [[ "$second" =~ ^-[0-9]+$ ]]; then
13     echo "Error: Second input is not a valid integer!"
14     exit 1
15 fi
16
17 if [ "$first" -gt "$second" ]; then
18     echo "$first is greater than $second"
19 elif [ "$first" -lt "$second" ]; then
20     echo "$first is less than $second"
21 else
22     echo "$first is equal to $second"
23 fi
```

2-3



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

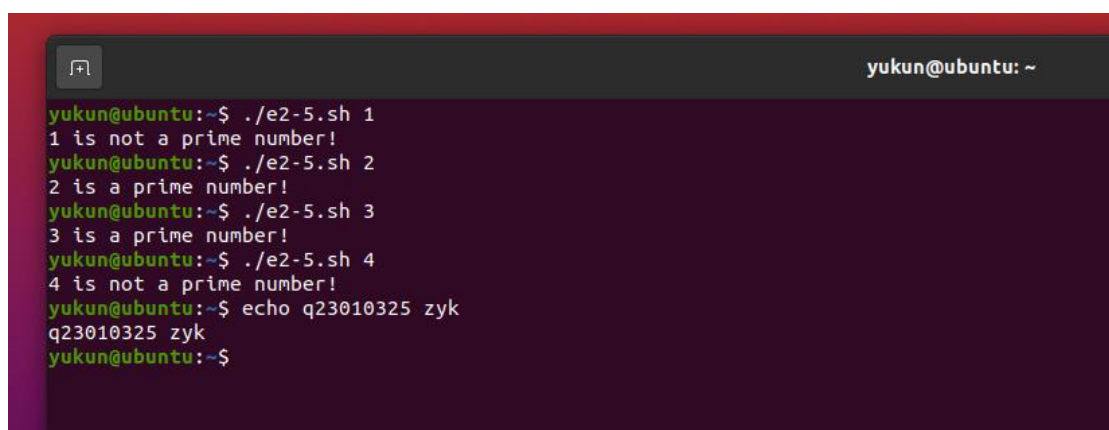
```
yukun@ubuntu: ~
yukun@ubuntu:~$ chmod +x e2-3.sh
yukun@ubuntu:~$ ./e2-3.sh
-3
yukun@ubuntu:~$ echo q23010325 zyk
q23010325 zyk
yukun@ubuntu:~$
```

2-4



```
yukun@ubuntu:~$ #!/bin/bash
yukun@ubuntu:~$ # Calculate the number of executable files in the current directory
yukun@ubuntu:~$
yukun@ubuntu:~$ count=0
yukun@ubuntu:~$ for i in *
> do
>     if [ -x "$i" ] && [ -f "$i" ]
>     then
>         ((count++)) # 或者 count=$((count + 1))
>     fi
> done
yukun@ubuntu:~$
yukun@ubuntu:~$ echo "Total of $count files executable"
Total of 3 files executable
yukun@ubuntu:~$ echo q23010325 zyk
q23010325 zyk
yukun@ubuntu:~$
```

2-5



```
yukun@ubuntu:~$ ./e2-5.sh 1
1 is not a prime number!
yukun@ubuntu:~$ ./e2-5.sh 2
2 is a prime number!
yukun@ubuntu:~$ ./e2-5.sh 3
3 is a prime number!
yukun@ubuntu:~$ ./e2-5.sh 4
4 is not a prime number!
yukun@ubuntu:~$ echo q23010325 zyk
q23010325 zyk
yukun@ubuntu:~$
```

```
Open  e2-5.sh  Sa
1#!/bin/bash
2prime() {
3    local n=$1
4    local flag=1
5    if [ $n -lt 2 ]; then
6        return 1
7    fi
8    if [ $n -eq 2 ]; then
9        return 0
10    fi
11    if [ $((n % 2)) -eq 0 ]; then
12        return 1
13    fi
14    local i=3
15    while [ $((i * i)) -le $n ]; do
16        if [ $((n % i)) -eq 0 ]; then
17            return 1
18        fi
19        i=$((i + 2))
20    done
21    return 0
22 }
23
24 if [ $# -ne 1 ]; then
25     echo "Usage: $0 <number>"
26     exit 1
27 fi
28
29 if ! [[ $1 =~ ^[0-9]+$ ]]; then
30     echo "Error: Please enter a positive integer"
31     exit 1
32 fi
33 prime "$1"
34 result=$?
35
36 if [ $result -eq 0 ]; then
37     echo "$1 is a prime number!"
38 else
39     echo "$1 is not a prime number!"
40 fi
```