

# 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
```

```
yzh@f-virtual-machine:~/Desktop$ chmod +x 1.sh
yzh@f-virtual-machine:~/Desktop$ ./1.sh
good morning ! !
yzh@f-virtual-machine:~/Desktop$
```

## 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
```

```
yzh@f-virtual-machine:~/Desktop$ chmod +x 1.sh
yzh@f-virtual-machine:~/Desktop$ ./1.sh
Enter the first integer:
12
Enter the second integer:
6
12 is greater than 6
yzh@f-virtual-machine:~/Desktop$
```

## 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
```

```
yzh@f-virtual-machine:~/Desktop$ chmod +x 1.sh
yzh@f-virtual-machine:~/Desktop$ ./1.sh
-3
yzh@f-virtual-machine:~/Desktop$
```

## 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
```

```
yzh@f-virtual-machine:~/Desktop$ chmod +x 1.sh
yzh@f-virtual-machine:~/Desktop$ ./1.sh
Total of 1 files executable
yzh@f-virtual-machine:~/Desktop$
```

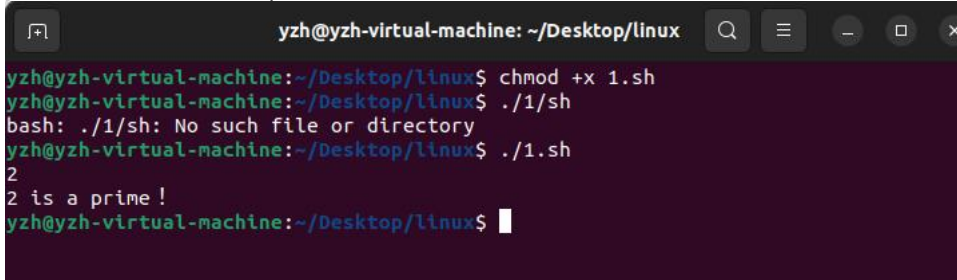
## 5. Check whether a given number is a prime, you have to write a function, and call the function.

---

```

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

```



A terminal window titled "yzh@yzh-virtual-machine: ~/Desktop/linux" showing the execution of the script. The user runs "chmod +x 1.sh", then ". /1.sh", which results in a "bash: ./1/sh: No such file or directory" error. Then, the user runs "./1.sh" again, which outputs "2" and "2 is a prime!".

```

yzh@yzh-virtual-machine: ~/Desktop/linux
yzh@yzh-virtual-machine:~/Desktop/linux$ chmod +x 1.sh
yzh@yzh-virtual-machine:~/Desktop/linux$ ./1/sh
bash: ./1/sh: No such file or directory
yzh@yzh-virtual-machine:~/Desktop/linux$ ./1.sh
2
2 is a prime!
yzh@yzh-virtual-machine:~/Desktop/linux$

```