# 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
```

```
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ chmod +x ex2_1
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ ./ex2_1
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
```

```
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ touch ex2_2
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ chmod +x ex2_2
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ ./ex2_2
Enter the first integer:
3
Enter the second integer:
5
 is less than 5
```

## 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
```

```
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ touch ex2_3
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ chmod +x ex2_3
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ ./ex2_3
-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
```

```
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ touch ex2_4
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ chmod +x ex2_4
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ ./ex2_4
Total of 4 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
```

```
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ ./ex2_5 7
7 is a prime!
dbnbw123@dbnbw123-virtual-machine:~/linux_2$ ./ex2_5 8
8 is not a prime!
```

```
if [ $? -eq 1 ]
 then
 echo "$1 is a prime!"
 else
 echo "$1 is not a prime!"
fi
```