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
```

图 1 实验 2-1 的任务要求

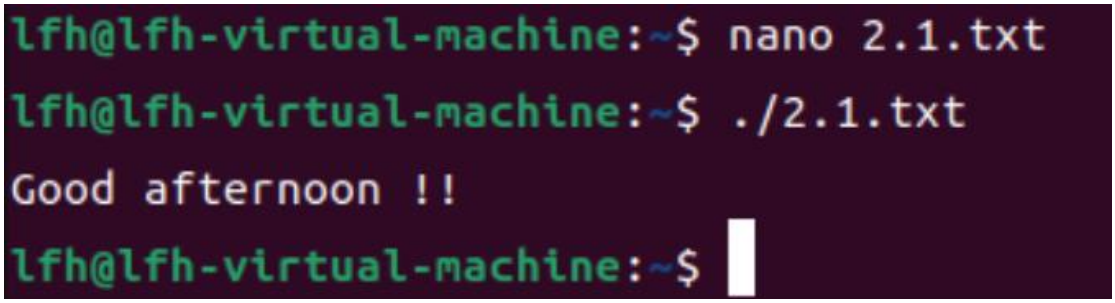

图 2 实验 2-1 的实现

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
```

图 3 实验 2-2 的任务要求

```
lfh@lfh-virtual-machine:~$ nano 2.2.txt
lfh@lfh-virtual-machine:~$ ./2.2.txt
Enter the first integer:
5
Enter the second integer:
6
5 is less than 6
lfh@lfh-virtual-machine:~$ ./2.2.txt
Enter the first integer:
5
Enter the second integer:
5
5 is equal to 5
lfh@lfh-virtual-machine:~$ ./2.2.txt
Enter the first integer:
4
Enter the second integer:
5
4 is less than 5
```

图 4 实验 2-2 的实现

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
```

图 5 实验 2-3 的任务要求

```
lfh@lfh-virtual-machine:~$ touch 2.3.txt
lfh@lfh-virtual-machine:~$ nano 2.3.txt
lfh@lfh-virtual-machine:~$ chmod u+x 2.3.txt
lfh@lfh-virtual-machine:~$ ./2.3.txt
-3
```

图 6 实验 2-3 的实现

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
```

图 7 实验 2-4 的任务要求

```
lfh@lfh-virtual-machine:~$ touch 2.4.txt
lfh@lfh-virtual-machine:~$ nano 2.4.txt
lfh@lfh-virtual-machine:~$ chmod u+x 2.4.txt
lfh@lfh-virtual-machine:~$ ./2.4.txt
Total of 23 files executable
```

图 8 实验 2-4 的实现

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
```

图 9 实验 2-5 的任务要求

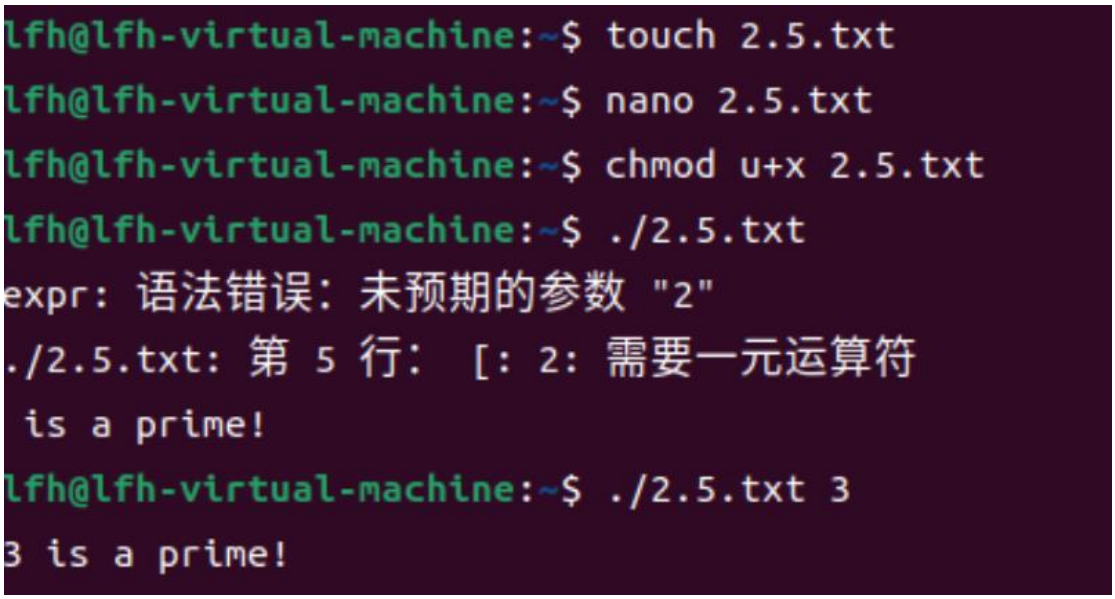

图 10 实验 2-5 的实现