

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
```

```
$ demo.sh
3  case $hour in
4      0[1-9] | 1[01] )
5          ;;
6      1[234567] )
7          echo "Good afternoon!!"
8          ;;
9      * )
10         echo "Good evening!!"
11         ;;
12     esac
```

问题 输出 终端 SPELL CHECKER

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● \$ bash demo.sh

Good morining!!

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○ \$

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
```

```
$ demo.sh
5 read second
6 if [ "$first" -gt "$second" ]
7 then
8 echo "$first is greater than $second"
9 elif [ "$first" -lt "$second" ]
10 then
11 echo "$FIRST is less than $second"
12 else
13 echo "$FIRST is equal to $second"
14 fi
```

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- \$ bash demo.sh

Enter the first integer:
25

Enter the second integer:
56

is less than 56

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
```

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

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- \$ bash demo.sh
- 3

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- \$

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
```

```
$ demo.sh X
$ demo.sh
2  {
3  }
20 }
21 prime $1
22 if [ $? -eq 1 ]
23 then
24     echo "$1 is a prime!"
25 else
26     echo "$1 is not a prime!"
27 fi
```

问题 输出 终端 SPELL CHECKER

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- \$ bash demo.sh
- expr: syntax error: unexpected argument '2'
- demo.sh: line 5: [: 2: unary operator expected
- is a prime!

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- \$