Selection Practice Problems with if & else

BridgeLabz
Employability Delivered

1. Write a program that reads 5 Random 3 Digit values and then outputs the minimum and the maximum value

```
a=$(( RANDOM % 999 ))
b=$(( RANDOM % 999 ))
c=$(( RANDOM % 999 ))
d=$(( RANDOM % 999 ))
e=$(( RANDOM % 999 ))
echo "random numbers are $a ,$b,$c,$d,$e"
if (( a>b && a>c && a>d && a>e ))
then
        echo "= $a is maximum"

elif (( b>a && b>c && b>d && b>e ))
then
        echo "= $b is maximum"

elif (( c>a && c>b && c>d && c>e ))
then
        echo "= $c is maximum"

elif (( d>a && d>b && d>c && d>e ))
then
        echo "= $d is maximum"

elif (( e>a && e>b && e>c && e>d ))
then
        echo "= $e is maximum"
fi

if (( a<b && a<c && a<d && a<e ))
then
        echo "= $a is minimum"

elif (( b<a && b<c && b<d && b<e ))
then
        echo "= $b is minimum"

elif (( c<a && c<b && c<d && c<e ))
then
        echo "= $c is minimum"

elif (( d<a && d<b && d<c && d<e ))
then
        echo "= $d is minimum"

elif (( e<a && e<b && e<c && e<d ))
then
```

```
ROHIT GUPTA@DESKTOP-PMFMKKV MINGW64 ~/Desktop
$ sh max.sh
"random numbers are 39 ,43,111,930,570"
= 930 is maximum
= 39 is minimum
```

2. Write a program that takes day and month from the command line and prints true if day of month is between March 20 and June 20, false otherwise.

```
  GNU nano 5.4                                                    n
read -p " Enter a Date: " date
read -p " Enter a Month: " month

if (( ((month >= 3 && date <= 20) && (date<31)) && (month <= 6 && date <= 20) ))
then
        echo "Month: $month Date: $date True";
else

        echo "Month: $month Date: $date False";
fi
```

```
xfzxl@DESKTOP-9KQ69I3 MINGW64 /d/BL Fellowship Program/01. Git-Linux commands/Day5-cmd
$ sh monthdayTF.sh
 Enter a Date: 1
 Enter a Month: 1
Month: 1 Date: 1 False

xfzxl@DESKTOP-9KQ69I3 MINGW64 /d/BL Fellowship Program/01. Git-Linux commands/Day5-cmd
$ sh monthdayTF.sh
 Enter a Date: 19
 Enter a Month: 6
Month: 6 Date: 19 True
```

3. Write a program that takes a year as input and outputs the Year is a Leap Year or not a Leap Year. A Leap Year checks for 4 Digit Number, Divisible by 4 and not 100 unless divisible by 400.

```
  GNU nano 5.4
read -p "Enter a year: " year

x=`expr $year % 400`

y=`expr $year % 100`

z=`expr $year % 4`

if (( (x==0) || (y!=0) && (z==0) ))

then

echo "Entered year: $year is a leap year"

else

echo "Entered year: $year is not a leap year"

fi
```

```
xfzxl@DESKTOP-9KQ69I3 MINGW64 /d/BL Fellowship Program/01. Git-Linux commands/Day5-cmd
$ sh leapyear.sh
Enter a year: 2020
Entered year: 2020 is a leap year

xfzxl@DESKTOP-9KQ69I3 MINGW64 /d/BL Fellowship Program/01. Git-Linux commands/Day5-cmd
$ sh leapyear.sh
Enter a year: 2021
Entered year: 2021 is not a leap year
```

4. Write a program to simulate a coin flip and print out "Heads" or "Tails" accordingly.

```
  GNU nano 5.4
let result=$(( RANDOM % 2 ))
if (( $result == 0 ))
then
    echo "Head"
else
    echo "Tails"
fi
```

```
xfzxl@DESKTOP-9KQ69I3 MINGW64 /d/BL Fellowship Program/01. Git-Linux commands/Day5-cmd
$ sh coinflip.sh
Tails

xfzxl@DESKTOP-9KQ69I3 MINGW64 /d/BL Fellowship Program/01. Git-Linux commands/Day5-cmd
$ sh coinflip.sh
Head
```