Bloomberg STARTUP

Week 5 In-class Exercise

1) What does the following code output?

```
1.  x = 10
2.  y = 20
3.  z = 30
4.
5.  print(x < y or y > z)
6.  print(x > 5 or y > 15)
7.  print(x > 5 or x == 10)
8.  print(x < y and y > z)
9.  print(x < y and y <= z)
10. print(x > 5 and y > 15)
11. print(not z == 30)
12. print(not y > 25)
```

2) Modify the high low guessing game from Lesson 3 to use if-elif-else.

The computer generates a random number between 1 and 50 and asks the user to guess the number. (Hint: Use the random module.)

If the user guess is too low, the computer says "Too low. The number is …". If the user guess is too high, the computer says "Too high. The number is …". If the user guess is correct, the computer says "You win! The number is …".

Sample Input #1

```
Please guess a number: 25
```

Sample Output #1

```
Too high. The number is 23
```

Sample Input #2

```
Please guess a number: 2
```

Sample Output #2

```
Too low. The number is 46
```

Add-on: Add the while loop to continue the guessing game until the user guesses the correct number.

3) Write a rock paper scissor game.

Assign a move to the computer. It can be either rock, paper, or scissor. Ask the user to enter a move. Output the game result based on the user move.

Sample Input #1 (Computer move is rock)

```
Enter your move: rock
```

Sample Output #1

```
It's a tie!
```

Sample Input #2 (Computer move is rock)

```
Enter your move: paper
```

Sample Output #2

```
You win!
```

Sample Input #3 (Computer move is scissor)

```
Enter your move: paper
```

Sample Output #3

```
You lose!
```