Assignment No 2

1) What are the two values of the Boolean data type? How do you write them?

The two values of Boolean data type are **True** and **False**,

True (1)

False(0)

2) What are the three different types of Boolean operators?

The three different types of Boolean operators are

AND, OR, NOT.

3) Make a list of each Boolean operator's truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate).

AND Truth table

A	B	OUTPUT
0	0	0
0	1	0
1	0	0
1	1	1

OR Truth table

A	B	OUTPUT
0	0	0
0	1	1
1	0	1
1	1	1

NOT Truth table

A	B
0	1
1	0

4. What are the values of the following expressions?

(5>4) and (3==5) = **False**

Not (5>4) = **False**

(5>4) or(3==5) = **True**

not((5>4)or(3==5)) = **False**

(True and True) and (True==False) = **False**

(not False) or (not True) = **True**

5. What are the six comparison operators?

Less Than	(<)
Greater Than	(>)
Less Than or Equal To	(<=)
Greater Than or Equal To	(>=)
Equal to	(==)
Not Equal To	(!=)

6. How do you tell the difference between the equal to and assignment operators ? Describe a condition and when you would use one.

Equal to operator is syntax is (==)

Assignment operator is syntax is (=)

= is an assignment operator, which means that it assign a value to a variable. It may look like the assignment operator works the same way as algebra's equal to operator.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

```
In [14]:  spam = 0
          if spam == 10:
           print('eggs')
          if spam > 5:
           print('bacon')
          else:
           print('ham')
           print('spam')
           print('spam')

          ham
          spam
          spam
```

8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything.

```
In [7]:  spam = int(input("Enter Number:"))
         if spam == 1:
             print("Hello")
         elif spam ==2:
             print("Howdy")
         else:
             print("Greetings!")

         Enter Number:2
         Howdy
```

9.If your program is stuck in an endless loop, what keys you'll press?

CTRL+C Keys

10. How can you tell the difference between break and continue?

Break: A break statement in python alters the flow of a loop by terminating it once a specified condition met.
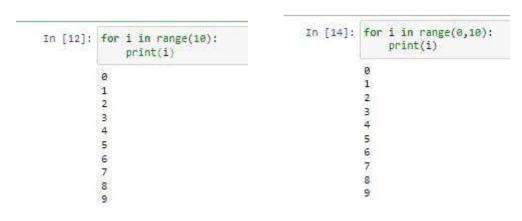
Continue: The continue statement in python is used to skip the remaining code inside a loop for the current iteration only.

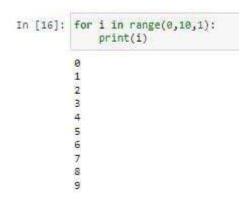## 11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?

No difference range will take value for 0 to 9.

Range(10)   Range(0,10)

```
In [12]: for i in range(10):
             print(i)

         0
         1
         2
         3
         4
         5
         6
         7
         8
         9
```

```
In [14]: for i in range(0,10):
             print(i)

         0
         1
         2
         3
         4
         5
         6
         7
         8
         9
```

Range(0,10,1)

```
In [16]: for i in range(0,10,1):
             print(i)

         0
         1
         2
         3
         4
         5
         6
         7
         8
         9
```

12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.

```
In [1]: for i in range(1,11):
            print(i)

        1
        2
        3
        4
        5
        6
        7
        8
        9
        10
```

```
In [2]: i = 1
        while (i<=10):
            print(i)
            i+=1

        1
        2
        3
        4
        5
        6
        7
        8
        9
        10
```

13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam

This function can be called with spam.bacon()