Assignment 2

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

Ans: True and False are two values of the boolean data types. We have to mind that we use capital T and F and with the rest of the word in lowercase.

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

Ans: The three different types of Boolean operators in python are: 'are', 'and' & '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).

Ans: The Truth tables for the boolean tables are as follows:

- **Truth Table for 'and' operator-**
  True and True is True
  True and False is False
  False and True is False
  False and False is False

- **Truth Table for 'or' operator-**
  True and True is True
  True and False is True
  False and True is True
  False and False is False

- **Truth Table for 'not' operator-**
  True not is False
  False not is True

4. What are the values of the following expressions?

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

not (5 > 4)

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

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

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

(not False) or (not True)

Ans:

False

False

True

False

False

True

5. What are the six comparison operators?

Ans: The Six comparison operators are:

== , != , < , > , <= , =>

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

Ans: '==' is the equal to operator that compares two values and evaluates to a Boolean, while '=' is that assignment operator that stores a value in a variable.

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')

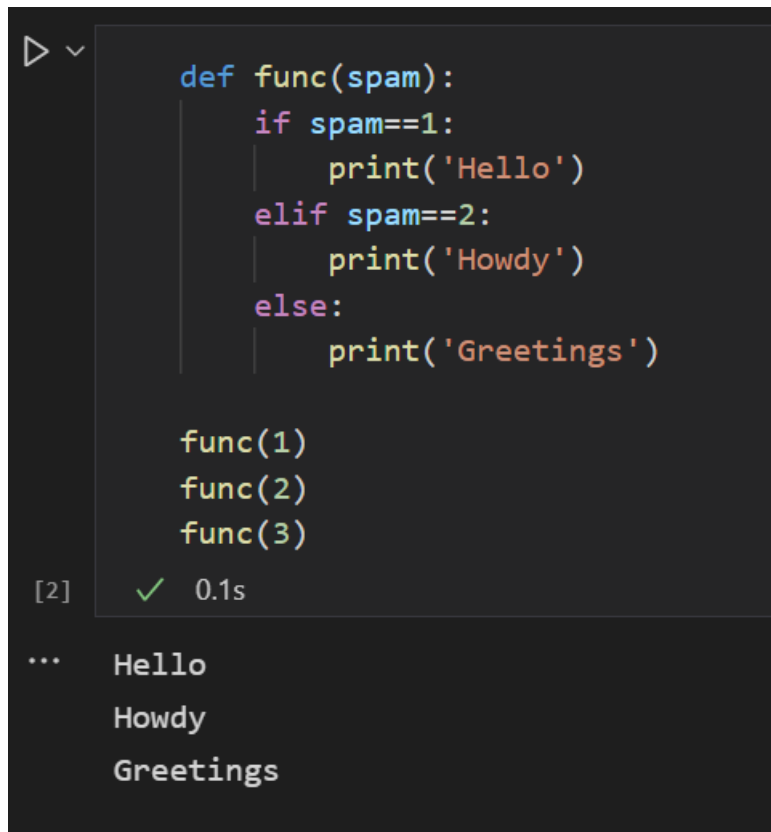Ans: The three blocks will be:

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 else is stored in spam.

Ans:

```python
def func(spam):
    if spam==1:
        print('Hello')
    elif spam==2:
        print('Howdy')
    else:
        print('Greetings')

func(1)
func(2)
func(3)
```

[2] ✓ 0.1s

```
Hello
Howdy
Greetings
```

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

Ans: I will press Ctrl+C in terminal to stop a program stuck in an infinite loop.

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

Ans: The break statement will move the execution outside the loop if break condition is satisfied. Whereas the continue statement will move the execution to the start of the loop.

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

Ans: The Differences are as follows:

1. The *range(10)* call range from 0 to 9 (but not include 10).

2. The *range (0,10)* explicitly tells the loop to start at 0 to 9 (but not include 10).

3. The *range(0,10,1)* explicitly tells the loop to increase the variable by 1 on each iteration.

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.

Ans:

```
print('Using For Loop')
for i in range(1,11):
    print(i, end=" ")
print('\n')
print('Using While Loop')
i=1
while i<=10:
    print(i, end=" ")
    i+=1
```
[6]   ✓ 0.6s

```
Using For Loop
1 2 3 4 5 6 7 8 9 10


Using While Loop
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?

Ans: This function can be called with spam.bacon().