**INeuron**

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**Assignment:-Python Basic Assignment No:-2**

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

* Two values of Boolean data type are **True and False,** use to indicate condition is true or not, in Python True represents 1 and False represents 0.

1. **What are the three different types of Boolean operators?**

* Boolean Operators are those that take Boolean inputs and return Boolean results.
* **Not Boolean Operator**: The only Boolean operator with one argument is not. It takes one argument and returns the opposite result: False for True and True for False.
* **The and Boolean Operator**: The and operator takes two arguments. It evaluates to False unless both inputs are True.
* **The or Boolean Operator**: The value of the or operator is True unless both of its inputs are False. The or operator could also be defined by the following truth table.

1. **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 ).**

|  |  |
| --- | --- |
| A | Not A |
| True | False |
| False | True |

Table 1 Not Operator

|  |  |  |
| --- | --- | --- |
| A | B | A and B |
| True | True | True |
| False | True | False |
| True | False | False |
| False | False | False |

Table 2 and Operator

|  |  |  |
| --- | --- | --- |
| A | B | A or B |
| True | True | True |
| False | True | True |
| True | False | True |
| False | False | False |

Table 3: Or operator

**4. What are the values of the following expressions?**

Expression Output

(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

1. **What are the six comparison operators?**

* Comparison Operator compare two arithmetic expressions and evaluate to a Boolean result.

|  |  |
| --- | --- |
| Operator | Name |
| == | Equal to |
| != | Not equal to |
| < | Less than |
| <= | Less than or equal to |
| > | Greater than |
| >= | Greater than or equal to |

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

* The “=” is an assignment operator is used to assign the value on the right to the variable on the left.

**Example:**

a = 10;

* The ‘==’ operator checks whether the two given operands are equal or not. If so, it returns true.

**For example:**

5==5

**7. Identify the three blocks in this code:**

**#Block 1**

spam = 0

if spam == 10:

print('eggs')

**#Block 2**

if spam > 5:

print('bacon')

else:

print('ham')

**#Block 3**

print('spam')

print('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.**

spam =int(input("Enter the value"))

if spam == 1:

print("Hello")

elif spam == 2:

print("Howdy")

else:

print("Greetings")

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

Cntrl + C

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

The main difference between both the statements is that when break keyword comes, it terminates the execution of the current loop and passes the control over the next loop or main body, whereas when continue keyword is encountered, it skips the current iteration and executes the very next iteration in the loop.

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

Python range() function generates the immutable sequence of numbers starting from the given start integer to the stop integer. The range() is a built-in function that returns a range object that consists series of integer numbers, which we can iterate using a for loop.

It takes three arguments. Out of the three, two are optional. The start and step are optional arguments and the stop is the mandatory argument.

**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.**

**For Loop**

for i in range(1,11):

print(i)

**While Loop**

i=1

while i<=10:

print(i)

i+=1

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

Import spam

A=spam.bacon()