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Assignment 2

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

Ans: The two values of the Boolean data type are **True** and **False**

We write them like this **: Boolean True, Bolean False**

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

Ans: The three different types of Boolean operators are **AND**, **OR** & **NOT.**

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 | B | A+B |
| True | True | **True** |
| True | False | **True** |
| False | True | **True** |
| False | False | **False** |

Ans: **OR**

**AND**

|  |  |  |
| --- | --- | --- |
| A | B | A+B |
| True | True | **True** |
| True | False | **False** |
| False | True | **False** |
| False | False | **False** |

**NOT**

|  |  |
| --- | --- |
| A |  |
| True | **False** |
| False | **True** |

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**

1. What are the six comparison operators?

Ans: 1. **Less than (<)**

2. **Greater than (>)**

3. **Equal to (==)**

4**. Less than equal to (<=)**

5. **Greater than equal to (>=)**

6. **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.

Ans: **Equal to Operator (==) :** This operator is use for comparision, when we compare two values are equal or not.

**Assignment operator (=) :** This operator is use to assign value to the variable, so that when we need that value we can use that variable instead of that value.

**Condition :**

* Suppose, in some snippet, I have while loop and my goal is to print only 2 so in condition block , I wrote while(number == 2){ some logic….. }.
* Suppose, in some snippet, I have assign a variable(number) equal to 2, so that in a while condition we can compare number to any specific number, as I mention in above example. number = 2 while(number == 2){ some logic….. }

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: **OUTPUT**- 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.

spam = input()

if(Number == 1) print(‘spam’)

elif(Number == 2) print(‘Howdy’)

else print(‘Greetings!’)

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

Ans: Ctrl + c

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

Ans: Break : break is use to terminate the current inner loop.

Continue: continue is use to escape the current iteration of loop.

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

Ans: range(10), range(0, 10), and range(0, 10, 1) they all three are use to do a specific task n no. of time. The basic difference of 3 of them is:

* **range(10)** – It takes only 1 parameter, which is the stop parameter, means by default it start from 0 and goes up to 9.
* **range(0,10)** – Here we pass 2 parameter one is Starting parameter and another is stopping one, here we can pass 1st parameter where we want to start iterating either from 0,1 or any number and it goes up to stopping parameter – 1.
* **range(0,10,1)** – Here we pass three parameter 1st one is starting, 2nd one is stopping and 3rd one is stepping parameter that mean we can start from 0 and goes up to 9 and it jump 1 step each time for this case.

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<11):

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?

Ans: We can call that function like this 🡪 **spam.bacon()**