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**Assignment 2**

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

True and False are the two values of the boolean data type. Syntax: True, False

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

And,or, not are the 3 different types of boolean operators

**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** | | | **or** | | | **not** | |
| **x** | **y** | **o/p**  **x and y** | **x** | **y** | **o/p**  **x or y** | **x** | **o/p**  **not x** |
| 1 | 1 | **1** | 1 | 1 | **1** | True | False |
| 1 | 0 | **0** | 1 | 0 | **1** | False | True |
| 0 | 1 | **0** | 0 | 1 | **1** |  |  |
| 0 | 0 | **0** | 0 | 0 | **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?**

== - Equal to

> - Greater than

>= - Greater than or equal to

< - Less than

<= - Less than or 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 sign is a comparison operator where it compares whether RHS==LHS. (Eg.: 1 == 3, in this case it is checked whether 1 is equal to 3)

Assignment operators assigns value of right side of expression to left side operand (Eg.: x=5, value 5 is assigned to variable x)

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

spam = 0

if spam == 10:

Block 1

print('eggs')

if spam > 5:

Block 2

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 = 0

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?**

**Ctrl+m+I** to interupt

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

Break: Terminates the loop

Continue:restarts the loop

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

All the three commands returns same output. By default start is always ‘0’ and step is always ‘1’.

**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 | While loop |
| for i in range(1,11):    print(i) | 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

spam.bacon()