Assignment \_2

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

Solution:

Two Boolean Data types are - True and False

a=1

b=1

print(bool(a==b))

print(bool(''))

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

Solution:

And - True if both ‘a’ and ‘b’ is true

Or - True if at least one is true

Not - True if it is false

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 ).

Solution:

== Truth Table

x == y Output

True == True True

True == False False

False == True False

False == False True

AND Truth Table

x and y Output

True and True True

True and False False

False and True False

False and False False

OR Truth Table

x or y Output

True or True True

True or False True

False or True True

False or False False

NOT Truth Table

not x Output

not True False

not False 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)

Solution:

(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?

Solution:

== Equal to

!= Not equal to

< Less than

> Greater than

<= Less than or equal to

>= 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.

Solution:

equal to operator - It checks where the values in left and right side of the operators are same.

Eg: 3 == 3 -- Gives true value as value on left and right side of operators are same.

assignment operator - It assigns a value on the right side of the operator to left side variable.

Eg: a=5 -- assigns 5 to variable ‘a’.

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')

Solution:

spam = 0

# Block -1

if spam == 10:

print('eggs')

# Block -2

if spam > 5:

print('bacon')

# Block -3

else:

print('ham')

print('spam')

print('spam')

Solution:

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.

Solution:

spam=1

if spam ==1:

print("Hello")

elif spam ==2:

print("Howdy")

else:

print("Greetings!")

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

Solution:

CTRL+C - to stop the endless loop.

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

Solution:

break - Break terminates the execution of loop once it is encountered.

Continue - Continue is used to jump to the next iteration of loop.

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

Solution:

range(10) - only ending point of loop is mentioned -- it will run from 0 to 9

range(0, 10) - starting point and ending point of loop is mentioned -- it will run from 0 to 9

range(0, 10, 1) - starting and ending and step increase is mentioned -- it will run from 0 to 9

All three will give the same result.

1. 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.

Solution:

For loop:

for i in range(1,11):

print(i)

While loop:

i=1

while (i <=10):

print(i)

i=i+1

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

 spam.bacon() has to be called.