Level 2: Lists & Logic

Accessing the Tutorial

* Go to: <http://www.letslearnpython.com/learn/>
* Skip directly to “Lesson 7: Booleans”

Questions

1. Complete “Lesson 7: Booleans – AND Comparisons” by typing the sample commands in the black area of the IDE.
   1. Try the following Python statements and record the results.
      1. True and True

True

* + 1. True and False

False

* + 1. False and True

False

* + 1. False and False

False

* 1. Explain if there are any other combinations of True / False.

There are no other possible outcomes with True/False because the outcomes listed above are the only outcomes(2\*2=4)

* 1. Explain how the AND operator is similar to a math operator and how it is different.

They are used to compare to codes, but in math they are used between numerals

1. Complete “Lesson 7: Booleans – OR Comparisons” by typing the sample commands in the black area of the IDE.
   1. Try the following Python statements and record the results.
      1. True or True
      2. True
      3. True or False
      4. true
      5. False or True

True

* + 1. False or False

False

* 1. Explain how the OR operator is similar to the AND operator and how it is different.

They both use comparisons but or has many more options than and

1. Complete “Lesson 7: Booleans – NOT Comparisons” by typing the sample commands in the black area of the IDE.
   1. Try the following Python statements and record the results.
      1. not (True or True)

False

* + 1. not (True or False)

False

* + 1. not (False or True)

Flase

* + 1. not (False or False)
    2. True
  1. Explain how the combination of the NOT & OR operators is similar to the AND operator by itself and how it is different.

They all use comparisons. They are different because the “not” operator is in front while the “or” and “and” operator is between

1. Complete “Lesson 7: Booleans – Expressions” by typing the sample commands in the black area of the IDE.
   1. Explain why the following two Python statements give different results.
      1. not (True or True)
      2. not True or True

because one is saying that it cant be True and the second one is saying that it cant be true but can be true

* 1. Explain why the following two Python statements give the same results.
     1. not (True and True)
     2. not True and True

because both of them are saying that True cannot be the answer given so that’s why it gave false

1. Complete “Lesson 7: Booleans – Practice” by typing the sample commands in the black area of the IDE.
   1. Create three more practice expressions similar to those in the tutorial.

3==1 3==3, “Gurnoor”== “Gurnoor”, 2==2,2==1

* 1. Provide the results for your practice expressions

False True, True, True False

1. Complete “Lesson 8: Lists – A Collection of Objects” by typing the sample commands in the black area of the IDE.
   1. Create a list of your favorite sports teams.

FC Barcelona, Eagle volley

* 1. Assign your list to a variable.
  2. Confirm that your variable and your list are the same.

1. Complete “Lesson 8: Lists – List Indexes” by typing the sample commands in the black area of the IDE.
   1. What is the list index of the last team in your list of favorite sports teams.
   2. Sports[2]
   3. In the tutorial, the error produced by typing “fruit[3]” is an example of:
      1. A Syntax Error?
      2. A Runtime Error?
      3. A Logic Error?
2. Complete “Lesson 8: Lists – Practice” and “Lesson 8: Lists – Practice Answers” by typing the sample commands in the black area of the IDE.

NOTE: Starting with Lesson 9 you should use the WHITE area of the IDE for entering example code with multiple statements.

1. Complete “Lesson 9: Logic – Making Decisions” by typing the sample commands in the white area of the IDE.
   1. Modify the tutorial code to print “Hi Alfred!” based on a decision using numbers

Number = "1"

if Number == "1":

print("Hi Samra!")

Hi Samra!

1. Complete “Lesson 9: Logic – Adding A Choice” by typing the sample commands in the white area of the IDE.
   1. Modify the tutorial code to print your first name or your last name based on a choice (using “else”).

if myname == "Gurnoor":

print("Hi Gurnoor!")

else:

print("Samra!")

1. Complete “Lesson 9: Logic – Adding Many Choices” and “Lesson 9: Logic – Practice” by typing the sample commands in the white area of the IDE.

Modify the tutorial code and “elif” statements to make a choice using at least 4 of your friends names. )

if myname == "Gurnoor":

print("Hi Gurnoor!")

elif myname == "bob":

print("Hi bob!")

elif myname == "Akash":

print("Hi Akash!")

elif myname == "Rob":

print("Hi Rob!")

elif myname == "Karman":

print("Hi Karman!")

elif myname == "top":

print("Hi top!")

else:

print("Who are you?!?")