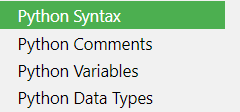
**Python Review and Remediation 1**

1. Read, take notes, and work through any “Try it Yourself” exercises from the following w3schools Python sections:



1. Identify which of the following are incorrect uses of indentation and explain your answer. If the code snippet is broken, submit a fix for it:
   1. if x > 5 :

print(“x is larger than 5)

if x > 5 :

print(“x is larger than 5)

if statements need an indent to know when the statement ends

* 1. while True:

print(“Hello World”)

* 1. if val != True:

val = True

* 1. if val == “Star Wars”:

print(“Yes”)

else:

print(“no”)

if val == “Star Wars”:

print(“Yes”)

else:

print(“no”)

The else statement portion does not need an indent

* 1. if val == “Star Wars”:

print(“Yes”)

else:

print(“no”)

* 1. while x == 2 :

if z == 1:

print(“1”)

while x == 2 :

if z == 1:

print(“1”)

the if statement is included in the while loop and needs to be indented

1. Which of the following are acceptable variable names in Python? If a variable name is not acceptable, explain why.
   1. Variable
   2. Variable2
   3. 2Variable
   4. my variable Invalid – No spaces allowed
   5. my-variable Invalid – No dashes allowed
   6. -myvariable Invalid – No dashes allowed
   7. \_myvariable
   8. 17 Invalid – Cannot start with a number
   9. validName
   10. styleSetting
   11. yours&mine Invalid – & is not a valid character
   12. yours\_and\_mine
   13. yours-and-mine
   14. myMoney$ Invalid – $ is not a valid character
2. Identify each Python data type for the variable, Var, below and explain how you know it is that data type.
   1. Var = “Hello World”

String, has quotes around it

* 1. Var = 120

Int, it’s a whole number

* 1. Var = 120.4

Float, has a decimal

* 1. Var = “66”

String, has quotes

* 1. Var = False

Boolean, is a true or false statement

* 1. Var = [1,2,3,4,”5”]

List, has a one dimensional set of characters/numbers

* 1. Var = [“1”,”2”,”3”,”4”,”5”]

List, has a 1d set of variables

* 1. Var = { “name” : “Bob”, “occupation” : “engineer”}

Dictionary, has a 2 dimensional set of variables

* 1. Var = range(len(someList))

Int, range function returns a number

* 1. Var = {“1”,”2”,”3”,”4”,”5”}

Dictionary, has curly brackets

* 1. Var = “12.5”

String, has quotes

* 1. Var = 10

Int, whole number

* 1. Var = “True”

String, has quotes

* 1. Var = True

Boolean, is a True value

1. Write a script that does the following:
   1. Asks a user for their first name and stores the value in a descriptive variable name of your choosing. Then ask the user for their age and store the value in another descriptive variable. (Hint: Use the input method, which will return a string. For example, var = input(“Enter a number: “) will store whatever the user enters as a text data type named, var).
   2. Add 5 to the user’s age, and store that value in another variable. Note that your age variable will be a string. You will have to cast your age variable as a numeric data type like integer or float, to perform math on it. Then you will have to convert your answer back to text. Using the \_\_str\_\_() integer method or cast str(x). Example:

x = 3 #x is an integer

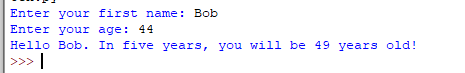
#converts and integer, x to a string and assigns it to numString, which is a string

numString = x.\_\_str\_\_()

#Alternatively you could replace the line above with numString = str(x)

print(numString + “ years old!”)

* 1. Finally, after asking for the information and converting the data, you will need print the following, for example, if the user enters Bob and 44 at your prompt:



Graphical user interface, text

Description automatically generated

Graphical user interface, text, application

Description automatically generated