PYTHON ASSIGNMENT -1

1. **Create three variables in a single line and assign different values to them and make sure their data types are different. Like one is int, another one is float and the last one is a string.**

Solution :

a,b,c =1,**'e'**,20.1

print(a,b,c)

print(**'\n'**)

1. **Create a variable of value type complex and swap it with another variable whose value is an integer.**

Solution :

**def** swap3 (x,y):

y = 1 + 2j z = x + y

l = (z - x)

c = (z - y).real

print (**"Swapped Value for x: "** + str(l)) print(**"Swapped Value for y: "** + str(c) + **'\n'**)

1. **Swap two numbers using the third variable as the result name and do the same task without using any third variable.**

Solution :

#Swap two numbers using the third variable

**def** swap1 (x,y):

z = y+x x = z-x y = z-y

print (**"Swapped Value for x: "** + str(x)) print(**"Swapped Value for y: "** + str(y) + **'\n'**)

swap1(5,6)

*#Swap two numbers without using any third variable*

**def** swap2 (x,y):

x = x+y y = x - y x = x - y

print (**"Swapped Value for x: "** + str(x)) print(**"Swapped Value for y: "** + str(y))

swap2(5,6)

4 Write a program to print the value given by the user by using both Python 2.x and Python 3.x Version.

Solution :

*#Python 3.x Version*

User\_input = input(**"Enter the value to be printed : "**) print(**"User Entered Value: "** + User\_input)

*#Python 2.x*

**User\_input = raw\_input("Enter the value to be printed : ") print("User Entered Value: " + User\_input)**

1. **Ask the user to enter any 2 numbers in between 1-10 and add both of them to another variable call z.Use z for adding 30 into it and print the final result by using variable result.**

Solution :

*#5. Ask the user to enter any 2 numbers in between 1-10 and add both of them to another variable call z. #Use z for adding 30 into it and print the final result by using variable result.*

**while True**:

User\_input1 = int(input(**"Enter the first number : "**)) **if** User\_input1<=10:

**break**

**else**:

print(**"Enter any number in between 1-10"**)

**while True**:

User\_input2 = int(input(**"Enter the Second number : "**)) **if** User\_input2<= 10:

**break else**:

print(**"Enter any number in between 1-10"**)

z = User\_input1 + User\_input2 result = z + 30

print(**"User Entered Value: "** + str(result))

1. **Write a program to check the data type of the entered values. HINT: Printed output should say - The input value data type is: int/ﬂoat/string/etc**

Solution :

**def** check\_data\_type(data):

**if** type(data)== int:

print(**"The input value data type is: int"**) **elif** type(data)== str:

print(**"The input value data type is: string"**) **elif** type(data)== ﬂoat:

print(**"The input value data type is: ﬂoat"**) **else**:

print(**"unknown data type"**)

1. **Create Variable using CamelCase, LadderCase and UPPERCASE. (Refer:**

[**https://capitalizemytitle.com/camel-case/**](https://capitalizemytitle.com/camel-case/)**) - Variable Conventions to write**

Solution :

*Uppercamal : Firstname UPPERCASE: ﬁrstname*

1. **If one data type value is assigned to ‘a’ variable and then a different data type value is assigned to ‘a’ again. Will it change the value. If Yes then Why?**

Solution :

a = 1 a = **"j"**

print(a)

*Yes the value will change since the variable a has been assigned a new value. Python will change the variable type if the variable va*