**TASK ONE - NUMBERS AND VARIABLES**

**1. Create three variables in a single line and assign values to them in such a manner that each one of**

**them belongs to a different data type.**

**E.g. :**

**a = 1,**

**b = 2.01,**

**c = 'string'**

**Solution:** a,b,c = 1,2.01,'string'

**2. Create a variable of type complex and swap it with another variable of type integer.**

**Solution:**

a=2+3j

b=2

temp=b #store the value in temp to help swaps

b=a

a=temp

print(a)

#prints 2

print(b)

#prints 2+3j

**3. Swap two numbers using a third variable and do the same task without using any third variable.**

***Swap with third variable***

left = "left"

right = "right"

temp = left

left = right

right = temp

print(left)

print(right)

***Swap without third variable***

left = "left"

right = "right"

left, right = right, left

print(left)

'right'

print(right)

'left'

**4. Write a program that takes input from the user and prints it using both Python 2.x and Python 3.x Version.**

val = input("Enter a value: ")

print(val) #python 3

print val #python 2

**5. Write a program to complete the task given below:**

**Ask users to enter any 2 numbers in between 1-10 , add the two numbers and keep the sum in another variable called z. Add 30 to z and store the output in variable result and print result as the final output.**

a = int(input("Enter a value for a in range between 1-10"))

b = int(input("Enter a value for b in range between 1-10"))

z = a+b

result = z+30

print(result)

**6. Write a program to check the data type of the entered values.**

**HINT: Printed output should say - The data type of the input value is: int/float/string/etc**

inputFromUser = input ("Enter the value of which you want to check the datatype of:")

print ("The data type of the input value is: ", type(inputFromUser))

**7. Create Variables using formats such as Upper CamelCase, Lower CamelCase, SnakeCase and**

**UPPERCASE.**

**(Refer:** [**https://capitalizemytitle.com/camel-case/**](https://capitalizemytitle.com/camel-case/)**)**

VariableA = "Upper CamelCase"

variableB = "Lower CamelCase"

variable\_c = "SnakeCase **"**

**8. 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?**

Yes, it will, because python has two types of conversion namely implict and explicit conversions. And the above scenario is implicit conversion.