PYTHON ASSIGNMENT

MAKE A MOVE TO PYTHON

ASSIGNMENTS

SUBMITTED TO

YASHIKA KHATRI

By: ANKUR SINGH

TASK-1: NUMBERS AND VARIABLES

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

```
x, y, z = 10, 20.5, "This is a string"
print(x,y,z)
```

Output:

10 20.5 This is a string

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

```
x = 10 + 20j
y = 15
print("Before swapping the value is {0}, {1}".format(x, y))
x, y = y, x
print("After swapping the value is {0}, {1}".format(x, y))
```

Output:

Before swapping the value is (10+20j), 15
After swapping the value is 15, (10+20j)

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

```
# Using temporary third Variable called result
x = 10
y = 20
result = x
x = y
y = result

print("Swapped value of X and y is: {0}, {1}".format(x,y))
```

Output:
Swapped value of X and y is: 20, 10

```
# Without using temporary third variable called result
x = 10
y = 20

x, y = y, x
print("Swapped value of x and y is: {0}, {1} ".format(x,y))
```

Output:
Swapped value of x and y is: 20, 10

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

```
# Python 2.7
print("Please enter the value in integer: ")
user_input = eval(raw_input())

print("Entered value is: %d"%(user_input))
```

Output:
Please enter the value in integer:
25
Entered value is: 25

```
# Python 3.8
print("Please enter the value in integer: ")
user_input = int(input())

print("Entered value is: {0}".format(user_input))
```

Output:
Please enter the value in integer:

25
Entered value is: 25

Write a program to complete the task given below:

Ask user to enter any 2 numbers in between 1-10 and add both of them to another variable called z.

Use z for adding 30 into it and print the final result by using variable result.

```
print("Hello User, Please enter 1st number: ")
user_input1 = int(input())

print("Thanks, Please enter 2nd number now: ")
user_input2 = int(input())

z = user_input1 + user_input2
z = z + 30
result = z

print("After adding 30, Final value is : {0}".format(result))
```

Output:

Hello User, please enter 1st number:

10

Thanks, please enter 2nd number now:

20

After adding 30, Final value is: 60

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.

```
a = 10
b = 2.5
c = 10 + 2j


data_lst = [10 , 3.5 , 'hello' , 2 , 10+2j , 0.3 , 'world']

for val in data_lst:
   t = type(val)
   print("The input value data type is  : %s"%(t))
```

Output:

```
The input value data type is  : <class 'float'>
The input value data type is  : <class 'str'>
The input value data type is  : <class 'int'>
The input value data type is  : <class 'complex'>
The input value data type is  : <class 'float'>
The input value data type is  : <class 'str'>
```

Create Variable using CamelCase, LadderCase and UPPERCASE

```
camelCase = 10  #lowerCamel ---> 1st letter is a lowercase and 2nd first letter of is Upper case
CamelCase = 20  #UpperCamel ---> 1st letter is a uppercase and 2nd first letter of subsequent word is also Upper case.
camel_case = 30 #snake_case ---> 1st leeter is lower case with underscore between subsequent word

print(camelCase, camelCase, camel_case)
```

Output:

10 10 30

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?

```
a = 10
print(a)
a = "New Value Assigned"
print(a)
```

Output:
10
New Value Assigned

Yes, the value of ‘a’ will change in python as Python is DYNAMICALLY TYPED PROGRAMMING LANGUAGE. In statically typed languages, variables have predetermined types, and a variable can only be used to hold values of that type. However since Python is a Dynamically typed programming language: Multiple assignments and Reassignments is possible.