PYTHON ASSIGNMENT BOOK

GET YOUR HANDS DIRTY WITH PYTHON

ASSIGNMENTS

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. For example one is int, another one is float and the last one is string.

E.g.- a = 1; b = 2.01; c = 'string'

```
a,b,c = 5,3.01,"Hello"
```

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

```
a_cmplx, b_int = 6 + 3j, 8
```

```
a_cmplx, b_int = b_int, a_cmplx
```

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

```
a1,a2 = 1, 2

j = a2

a2 = a1

a1 = j
```

Without third variable:

```
a1, a2 = 1,2

a1,a2 = a2,a1
```

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

Python 2.x:

```
x = raw_input("Enter an input")

print x
```

Python 3.x:

```
x = input("Enter an input")

print(x)
```

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.

```
x,y = int(input("Input any two numbers between 1-10 ")),
int(input("Input any two numbers between 1-10 "))
z = x+y
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

```
x = eval(input("Enter a value "))
if isinstance(x,str):
    print("The data type of the input value is string")
elif isinstance(x,int):
    print("The data type of the input value is int")
elif isinstance(x,float):
    print("The data type of the input value is float")
```

7. Create Variables using formats such as ***Upper CamelCase***, ***Lower CamelCase,*** ***SnakeCase*** and ***UPPERCASE***. (Refer: https://capitalizemytitle.com/camel-case/)

```
# UpperCamel
VariableFirst = "Jan Sher Khan"

# lowerCamel
variableFirst = "Jan Sher Khan"

# snake_case
variable_first = "Jan Sher Khan"

# UPPERCASE (This is not defined in the link)
VARIABLEFIRST = "Jan Sher Khan"
```

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 change the value because the variable 'a' is assigned a different memory location everytime we change the data type values.