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.

```
>>>
>>>
>>> message = 'I am learning python'
>>> a = 10
>>> pi = 3.17
>>>
>>>
>>> print(message)
I am learning python
>>>
>>> print(a)
10
>>>
>>> print(pi)
3.17
```

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

```
>>>
>>> a,b = 2+3j, 20
>>> a,b=b,a
>>> print (a,b)
20 (2+3j)
>>>
```

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

```
>>>
>>> a,b = 20,30
>>> result = b,a
>>> print(result)
(30, 20)
>>>
>>> a,b = 20,30
>>> a,b=b,a
>>> print(a,b)
30 20
>>>
```

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

```
Python 2.7.17 (v2.7.17:c2f86d86e6, Oct 19 2019, 21:01:17) [MSC v.1500 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
>>>
>>> z = raw_input("What is your name: ")
What is your name: Gandhali K
>>>
>>> print z
Gandhali K
>>>
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
>>>
>>> z = input("What is your name: ")
What is your name: Gandhali K
>>>
>>> print(z)
Gandhali K
>>>
```

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

- 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.

```
>>>
>>> x,y =[int(x) for x in input(" Enter 2 numbers in between 1-10: ").split()]
 Enter 2 numbers in between 1-10: 8 7
>>>
>>> x
8
>>> y
7
>>>
>>> z = x+y
>>>
>>> print(z)
15
>>>
>>> a = 30
>>>
>>> result = z+a
>>> print(result)
45
>>>
>>>
```

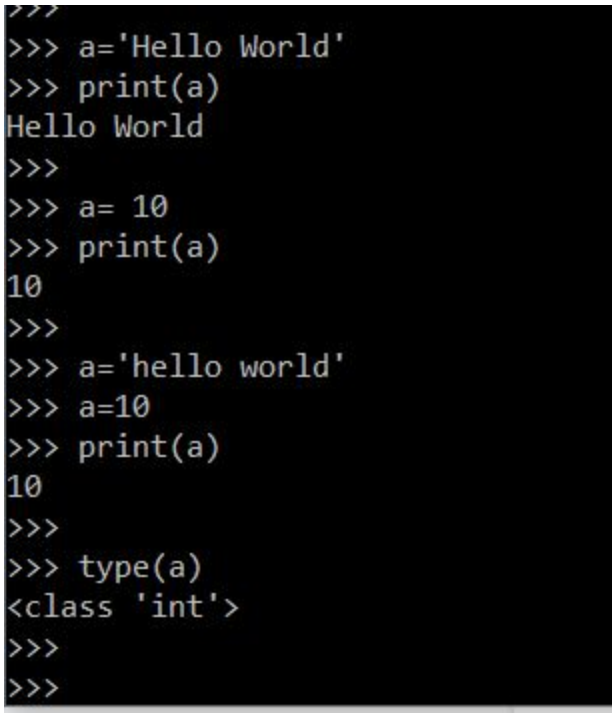
6. Write a program to check the data type of the entered values. HINT: Printed output should say - The input value data type is: int/float/string/etc

```
>>>
>>> a = 'Hello World'
>>> print('The input value data type is: ', type(a))
The input value data type is:  <class 'str'>
>>>
>>>
>>> b = 10
>>> print('The input value data type is: ', type(b))
The input value data type is:  <class 'int'>
>>>
>>>
>>> pi = 3.17
>>> print('The input value data type is: ', type(pi))
The input value data type is:  <class 'float'>
>>>
>>>
```

7. Create Variable using CamelCase, LadderCase and UPPERCASE. (Refer: https://capitalizemytitle.com/camel-case/) - Variable Conventions to write

```
>>>
>>> #CamelCase
>>> LearningPython = 'I am enjoying it'
>>> print(LearningPython)
I am enjoying it
>>>
>>> #CamelCase - Lower
>>> learningPython = 'I am enjoying it'
>>> print(learningPython)
I am enjoying it
>>>
>>> #SnakeCase
>>> learning_python = 'I am enjoying it'
>>> print(learning_python)
I am enjoying it
>>>
```

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, the value is overwritten. It assigns the same memory block for a variable with the same name so when a variable is assigned two different values, it considers the most recent one.