5. PYTHON - VARIABLES

Contents

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1. Variable

✓ Variable is a reserved memory location to store values.

2. Purpose of the variable

✓ The purpose of variable is to represent the data
✓ Data means a collection of facts
✓ Facts can be,
  o Alphabets.
  o Numbers.
  o Alphanumeric
  o Symbols

3. Properties of variable

✓ Every variable has its own properties,
✓ Every variable can contain,
  o Name
  o Type
  o Value

4. Naming convention to a variable

✓ Name should start with lower case.
✓ If name having multiple words then separating every word with underscore symbol is a good practice

5. Creating a variable

✓ We need to follow below syntax to create a variable.

Syntax

        name_of_the_variable **=** value

Program Name	Creating a single variable demo1.py age = 16 print(age)
output	 16

Program Name	Creating two variables demo2.py name = "Daniel" age = 16 print(name) print(age)
output	 Daniel 16

Program Name	Creating two variables and using one print demo3.py name = " Daniel" age = 16 print(name, age)
output	 Daniel 16

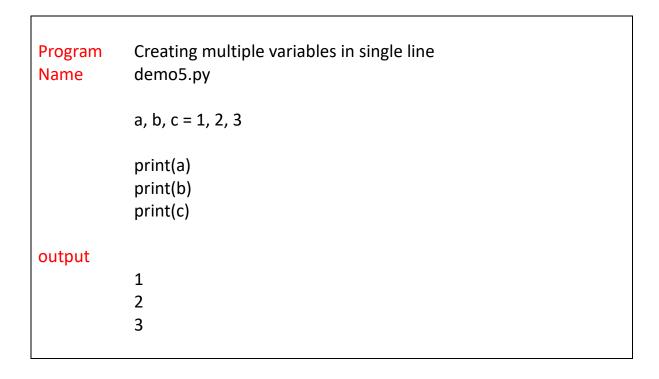|	
Program Name	Creating a variable with meaningful text message demo4.py name = "Daniel" print("I am", name)
output	 I am Daniel

Important note

- ✓ Python having dynamic data type nature.
- ✓ It means, while creating variable we no need to provide the data type explicitly in python.
- ✓ Regarding data type we will learn in Data type chapter.

6. Creating multiple variables in single line

- ✓ We can creating multiple variables in single line
- ✓ # Rule
  - o There should be same number on the left and right-hand sides. Otherwise we will get error.

Program Name	Creating multiple variables in single line
	demo5.py
	a, b, c = 1, 2, 3
	print(a)
	print(b)
	print(c)
output	
	1
	2
	3

7. Single value for multiple variables

✓ We can assign a single value to multiple variables simultaneously.

Program Name	Assign single value to multiple variables demo6.py a = b = c = 3 print(a) print(b) print(c)
Output	3 3 3

8. Variable re-initialization

- ✓ Based on requirement we can re-initialize existing variable value.
- ✓ In variable re-initialization old values will be replaced with new values.

Program Name	Creating a variable demo7.py
	`sal = 10000` `print("My salary is:", sal)`
Output	My salary is: 10000

Program Name	Re-initialising variable demo8.py
	`sal = 10000` `sal = 12000`
	`print("My salary is:", sal)`
Output	My salary is: 12000