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Python Variables, Constants and Literals

In this article, you will learn about Python variables, constants, literals and their use cases.

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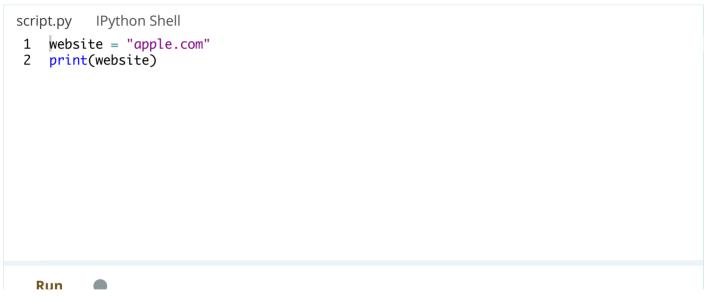
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Note: In Pytnon, we don't assign values to the variables, whereas Pytnon gives the reference of the object (value) to the variable.

Assigning a value to a Variable in Python

As you can see from the above example, you can use the assignment operator = to assign a value to a variable.

Example 1: Declaring and assigning a value to a variable



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When you run the program, the output will be:

```
apple.com
programiz.com
```

In the above program, we have assigned apple.com to the website variable initially. Then, it's value is changed to programiz.com.

Example 3: Assigning multiple values to multiple variables

script.py IPython Shell

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The second program assigns the same string to all the three variables x, y and z.

Constants

A constant is a type of variable whose value cannot be changed. It is helpful to think of constants as containers that hold information which cannot be changed later.

Non technically, you can think of constant as a bag to store some books and those books cannot be replaced once placed inside the bag.

Assigning value to a constant in Python

In Python constants are usually declared and assigned on a module Here the module **RECOMMENDED READINGS**

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In the above program, we create a constant.py module file. Then, we assign the constant value to PI and GRAVITY. After that, we create a main.py file and import the constant module. Finally, we print the constant value.

Note: In reality, we don't use constants in Python. The globals or constants module is used throughout the Python programs.

Rules and Naming convention for variables and constants

- 1. Create a name that makes sense. Suppose, vowel makes more sense than v.
- 2. Use camelCase notation to declare a variable. It starts with lowercase letter. For example:

myName myAge myAddress

3. Use capital letters where possible to declare a constant. For example:

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of literals they are as follows:

Numeric Literals

Numeric Literals are immutable (unchangeable). Numeric literals can belong to 3 different numerical types Integer, Float and Complex.

Example 4: How to use Numeric literals in Python?

```
script.py
          IPython Shell
1
     a = 0b1010 #Binary Literals
     b = 100 #Decimal Literal
3
     c = 00310 \#0ctal Literal
 4
     d = 0x12c #Hexadecimal Literal
 5
     #Float Literal
 6
     float_1 = 10.5
 7
     float_2 = 1.5e2
 8
9
    #Complex Literal
10
     x = 3.14j
11
12
13
     print(a, b, c, d)
     print(float_1, float_2)
14
     print(x, x.imag, x.real)
  Run
```

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String literals

A string literal is a sequence of characters surrounded by quotes. We can use both single, double or triple quotes for a string. And, a character literal is a single character surrounded by single or double quotes.

Example 7: How to use string literals in Python?

```
script.py
          IPython Shell
1
     strings = "This is Python"
     char = "C"
2
     multiline_str = """This is a multiline string with more than one line code."""
3
 4
     unicode = u"\u00dcnic\u00f6de"
     raw_str = r"raw \n string"
 5
 7
     print(strings)
 8
     print(char)
     print(multiline_str)
9
10 print(unicode)
11 print(raw_str)
  Run
```

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```
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4 b = False + 10

5 print("x is", x)

7 print("y is", y)

8 print("a:", a)

9 print("b:", b)
```

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When you run the program, the output will be:

```
x is True
y is False
a: 5
b: 10
```

In the above program, we use boolean literal True and False. In Python, True represents the value as 1 and False as 0. The value of x is True because 1 is actual to True And the value of x is False because 1 is not equal to False RECOMMENDED READINGS

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Run

Run

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When you run the program, the output will be:

Available None

In the above program, we define a menu function. Inside menu, when we set parameter as drink then, it displays Available. And, when the parameter is food, it displays None.

Literal Collections

There are four different literal collections List literals, Tuple literals, Dict literals, and Set literals.

Example 10: How to use literals collections in Python?

script.py IPython Shell

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having values with keys desginated to each value and set of vowels.

To learn more about literal collections, refer Python Data Types.

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