

Python Variables and Constants

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Python Variables

- Variables are **containers** for **hold the data values** which can be changed later.
- Python has no command for declaring a variable.
- A variable is created when **first assign a value to it.**

```
name = "Aravind"  
age = 29
```

- Variables do **not need to be declared with any particular type**, and **can even change type** after they have been set.

```
sampleVariable = 4 # sampleVariable is of type Integer  
sampleVariable = "Kerala" # sampleVariable is now of type String
```

Assigning values to Variables in Python

- Use the assignment operator (=) to assign a value to a variable.

Example 1: Declaring and assigning value to a variable

```
place = "Amritapuri"  
print(place)
```

- Output

Amritapuri

Assigning values to Variables in Python

- **Example 2: Changing the value of a variable**

```
place = "Amritapuri"  
print(place)  
  
# assigning a new value to variable  
place = "Alappuzha"  
print(place)
```

- **Output:**
Amritapuri
Alappuzha

Assigning values to Variables in Python

- **Example 3: Assigning multiple values to multiple variables**

```
a, b, c = 5, 3.2, "Hello"
```

```
print (a)  
print (b)  
print (c)
```

- Assigning the same value to multiple variables at once

```
x = y = z = "same"
```

```
print (x)  
print (y)  
print (z)
```

Python Constants

- A constant is a type of variable whose value cannot be changed.
- **Assigning value to constant in Python**
 - In Python, constants are usually declared and assigned in a module.

Python Constants

- **Example: Declaring and assigning value to a constant**

- Create a **constant.py**

```
PI = 3.14  
NEGATIVE_ONE = -1
```

- Create a **main.py**

```
import constant  
  
print(constant.PI)  
print(constant.NEGATIVE_ONE)
```

Output

3.14

-1

Python Constants

- **Note:** In reality, we don't use constants in Python. Naming them in all capital letters is a convention to separate them from variables.