



Namespace



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Content



- 1. What is Name in Python?**
- 2. What is a Namespace in Python?**
- 3. Python Variable Scope**

What is Name in Python?

Name (also called identifier) is simply a name given to objects. Everything in Python is an object. Name is a way to access the underlying object.

For example, when we do the assignment `a = 2`, here 2 is an object stored in memory and a is the name we associate it with. We can get the address (in RAM) of some object through the built-in function, `id()`.

Note: You may get different value of id

```
a = 2
```

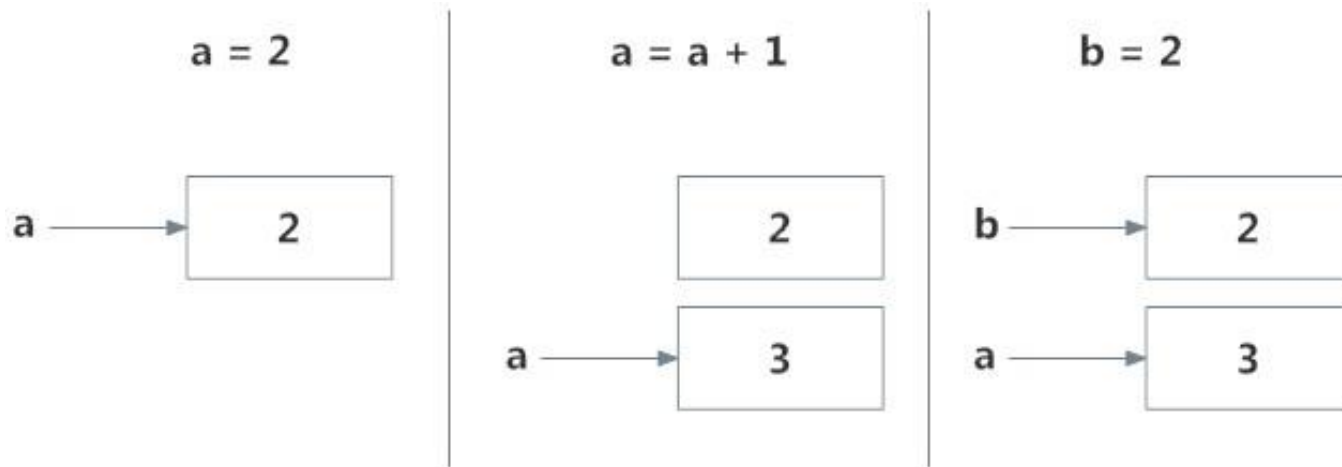
```
# Output: id(2)= 10919424
```

```
print('id(2) =', id(2))
```

```
# Output: id(a) = 10919424
```

```
print('id(a) =', id(a))
```

What is Name in Python?



Note: You may get different value of id

```
a = 2
```

```
# Output: id(a) = 10919424  
print('id(a) =', id(a))
```

```
a = a + 1
```

```
# Output: id(a) = 10919456  
print('id(a) =', id(a))
```

```
# Output: id(3) = 10919456  
print('id(3) =', id(3))
```

```
b = 2
```

```
# Output: id(2) = 10919424  
print('id(2) =', id(2))
```

What is a Namespace in Python?

In Python, you can imagine a namespace as a mapping of every name, you have defined, to corresponding objects.

This is the reason that built-in functions like `id()`, `print()` etc. are always available to us from any part of the program. Each module creates its own global namespace.



Python Variable Scope

Scope is the portion of the program from where a namespace can be accessed directly without any prefix.

At any given moment, there are at least three nested scopes.

- 1.Scope of the current function which has local names
- 2.Scope of the module which has global names
- 3.Outermost scope which has built-in names

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- 1. What is Name in Python?**
- 2. What is a Namespace in Python?**
- 3. Python Variable Scope**
- 4. Example of Scope and Namespace in Python**