

# Python Variables

## Variables

Variables are containers for storing data values.

## Creating Variables

Python has no command for declaring a variable.  
A variable is created the moment you first assign a value to it.

### Example

```
x = 5
y = "John"
print(x)
print(y)
```

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

### Example

```
x = 4          # x is of type int
x = "Sally"    # x is now of type str
print(x)
```

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

### Example

```
x = 4          # x is of type int
x = "Sally"    # x is now of type str
print(x)
```

## Casting

If you want to specify the data type of a variable, this can be done with casting.

### Example

```
x = str(3)     # x will be '3'
y = int(3)     # y will be 3
z = float(3)   # z will be 3.0
```

# Get the Type

You can get the data type of a variable with the `type()` function.

## Example

```
x = 5
y = "John"
print(type(x))
print(type(y))
```

# Single or Double Quotes?

String variables can be declared either by using single or double quotes:

## Example

```
x = "John"
# is the same as
x = 'John'
```

# Case-Sensitive

Variable names are case-sensitive.

## Example

This will create two variables:

```
a = 4
A = "Sally"
#A will not overwrite a
```