

# 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)
```

# Variable Names

A variable can have a short name (like x and y) or a more descriptive name (age, carname, total\_volume). Rules for Python variables:

- A variable name must start with a letter or the underscore character
- A variable name cannot start with a number
- A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and \_ )
- Variable names are case-sensitive (age, Age and AGE are three different variables)

## Example

Legal variable names:

```
myvar = "John"  
my_var = "John"  
_my_var = "John"  
myVar = "John"  
MYVAR = "John"  
myvar2 = "John"
```