



# Python Variables

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## Creating Variables

Unlike other programming languages, 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)
```

[Run example >>](#)

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)
```

[Run example >>](#)

# 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)

Remember that variables are case-sensitive

## Output Variables

The Python `print` statement is often used to output variables.

To combine both text and a variable, Python uses the `+` character:

### Example

```
x = "awesome"  
print("Python is " + x)
```

Run example »

You can also use the `+` character to add a variable to another variable:

### Example

```
x = "Python is "  
y = "awesome"  
z = x + y  
print(z)
```

Run example »

For numbers, the `+` character works as a mathematical operator:

## Example

```
x = 5  
y = 10  
print(x + y)
```

Run example »

If you try to combine a string and a number, Python will give you an error:

## Example

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

Run example »

# Test Yourself With Exercises

## Exercise:

Create a variable named `carname` and assign the value `Volvo` to it.

= "  "

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