

What are Variables?

Variables are like containers that store information. Think of a variable as a labeled box. You can put different items (data) inside the box and give it a name so you can find it later. In Python, you can name a variable anything you want (within some rules), and you use the equals sign (=) to put data into it.

Python

```
name = "Gemini"
```

```
age = 25
```

Here, name is a variable holding the text "Gemini", and age is a variable holding the number 25.

What are Data Types?

The type of data you put in a variable matters! Python has different **data types** to classify information. The most common ones you'll start with are:

- **Strings (str):** Used for text. They are always enclosed in quotation marks (single or double).

```
greeting = "Hello, world!"
```

- **Integers (int):** Used for whole numbers (positive or negative).

```
number_of_apples = 10
```

- **Floats (float):** Used for numbers with a decimal point.

```
price = 9.99
```

- **Booleans (bool):** Used for values that can only be either True or False.

```
is_completed = True
```

Understanding data types is crucial because it tells Python what kind of operations it can perform with the data. For example, you can add two integers together, but you can't add an integer to a string in the same way.