👋Hello, World! Program

* First Python program looks like this:
* print("Hello, World!")
* Consists of:
  1. print → function name
  2. ( → opening parenthesis
  3. " → opening quotation mark
  4. Hello, World! → text (string)
  5. " → closing quotation mark
  6. ) → closing parenthesis

**🔎 The print() Function**

* A **function** in Python is a block of code that:
  + Causes an **effect** (e.g., displays text, creates a file, plays a sound)
  + Produces a **result** (e.g., length of text, square root of a number)
  + Sometimes does **both**
* Functions can come from:
  + **Built-in Python** (e.g., print)
  + **Modules** (add-ons that extend Python)
  + **Your own code** (custom functions)
* A **function name** should be clear and meaningful
* Always followed by parentheses () → even if no arguments are provided

**📌 Function Components**

1. **Effect** → what it does (e.g., displays output)
2. **Result** → what it returns (optional)
3. **Argument(s)** → data passed into the function

Example:

print("Hello, World!")

* **Function name:** print
* **Argument:** "Hello, World!" (a string)

**💬 Strings in Python**

* Defined using **quotes** " " or ' '
* Quotes tell Python: *this is text, not code*
* Example:
* print("Python is fun!")
* Strings can contain almost anything inside the quotes

**⚙️ How Function Invocation Works**

When Python encounters a function call like:

function\_name(argument)

It follows these steps:

1. **Check name validity** → is the function defined?
2. **Check arguments** → are the number/type of arguments correct?
3. **Execute function code** → passes arguments and runs the function
4. **Cause effect / produce result** (if applicable)
5. **Return to your code** → continues execution after the function call