

# Python Installation and Setup on Windows

## 1. Download and Install Python

- Download the latest Python installer from the official website:  
[python.org](https://www.python.org).
- Run the installer and check Add Python to PATH before proceeding with the installation.
- Click "Install Now" and follow the installation prompts.

## 2. Add Python to Environment Variables in Windows

### Find Python Installation Path

1. Open File Explorer and navigate to where Python is installed, usually:
  - `C:\Users\YourUsername\AppData\Local\Programs\Python\PythonXX`
  - or `C:\PythonXX`

\*(Replace `XX` with your installed Python version, e.g., Python39 for Python 3.9.)\*
2. Copy the full path of the `python.exe` file.

### Add to Environment Variables

1. Press `Win + R`, type `sysdm.cpl`, and press Enter (or search for Environment Variables and press Enter).
2. Go to the Advanced tab and click Environment Variables.
3. Under System variables, find and select Path, then click Edit.
4. Click New and paste the copied Python installation path.
5. Also, add the Scripts folder path (inside the Python directory), e.g.:
  - `C:\Users\YourUsername\AppData\Local\Programs\Python\PythonXX\Scripts`
6. Click OK on all windows to save changes.
7. Restart your computer for changes to take effect.

## 3. Verify Installation

1. Open Command Prompt (`cmd`).
2. Execute the following command:

```
'''
```

```
python --version
```

or

```
python3 --version
```

If installed correctly, this should display the Python version.

#### 4. Writing and Running Python Code

Choose an Editor or Terminal

You can write Python code using:

- IDLE (Python's built-in editor)
- VS Code, PyCharm, or any text editor
- Command Prompt or Terminal

Write and Save a Python Script

1. Create a new file named hello.py.
2. Add the following code:

```
```python
print("Hello, World!")
```
```

3. Save the file.

Run the Program

Method 1: Using Command Prompt

1. Open Command Prompt.
2. Navigate to the file location using `cd`.
3. Run the script:

```
python hello.py
```

Method 2: Using an IDE

1. Open hello.py in your chosen IDE.
2. Click "Run" to execute the script.

Now you have Python installed and ready to use on Windows!