

Setting Up Python 3.12 on MAC OS:

Step 1: Check Current Python Version (Optional)

- Open the Terminal, which is your command-line interface.
- Execute the command `python3 --version` to determine if Python is already installed. Note the version if present.

Using the official Python website: <https://www.python.org/downloads>:

Step 2: Download Python 3.12

- Visit the official Python website: <https://www.python.org/downloads>
- Click on the macOS option.
- Download the macOS 64-bit universal2 installer.

Step 3: Run the Installer

- Locate the downloaded installer and double-click it to initiate the installation process.

Step 4: Verify Python Installation

- To ensure Python 3.12 is installed correctly, run the following command in the Terminal:
`python3.12 --version`

Using **brew**:

Step 2: Install Homebrew (If Not Installed)

- Open the Terminal.
- Install Homebrew, a package manager, by executing the following command:
`/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install.sh)"`

Step 3: Install Python 3.12

- In the Terminal, run the command `brew install python@3.12` to install Python 3.12.

Step 4: Verify Python Installation

- To ensure Python 3.12 is installed correctly, run the following command in the Terminal:
`python3.12 --version`

Step 5: Set Up Virtual Environments (Optional but Recommended)

- Utilize virtual environments for project isolation.
- Create a virtual environment with the command `python3.12 -m venv myenv`, replacing `myenv` with your chosen environment name.
- Activate the virtual environment by running `source myenv/bin/activate`.
- To deactivate it later, simply execute `deactivate`.