Python Tutorial

Welcome to the Python Tutorial. This guide will help you get started with Python programming on your MacBook.

Getting Started

1. **Create a Folder for the Tutorial** Open your terminal and create a new folder for the tutorial:

```
mkdir ~/Tutorial/Macbook-Python
cd ~/Tutorial/Macbook-Python
```

2. **Install Python** If you don't have Python installed, download and install it from the official website:

   - [Download Python](#)

```
brew install python
```

3. **Install Visual Studio Code** Download and install Visual Studio Code (VS Code) for a powerful and lightweight code editor:

   - [Download VS Code](#)

```
brew install --cask visual-studio-code
```

   After installing, you can open VS Code from the terminal:

```
code .
```

2. **Set Up a Virtual Environment** Create a virtual environment to manage your project dependencies:

```
python3 -m venv venv
source venv/bin/activate
```

3. **Install Required Packages** Install any necessary packages using pip:

```
pip install <package-name>
```

4. **Start Coding** Create a new Python file and start coding:

```
touch main.py
open main.py
```

Resources

- [Python Official Documentation](#)
- [Virtual Environments Guide](#)

Happy coding!

Troubleshooting

Python Installation Issues

1. **Python Command Not Found** If you receive a "command not found" error when trying to run Python:

   - Ensure Python is installed correctly by running:

     ```
     python3 --version
     ```

   - If not installed, reinstall Python using Homebrew:

     ```
     brew install python
     ```

2. **Pip Not Working** If pip is not recognized:

   - Ensure pip is installed:

     ```
     python3 -m ensurepip --upgrade
     ```

   - Upgrade pip to the latest version:

     ```
     python3 -m pip install --upgrade pip
     ```

VS Code Installation Issues

1. **VS Code Command Not Found** If the `code` command is not recognized:

   - Ensure VS Code is installed correctly.

- Install the `code` command in PATH:
  - Open VS Code, press `Cmd+Shift+P`, and type `Shell Command: Install 'code' command in PATH`.

2. **Extensions Not Installing** If you have trouble installing extensions:

   - Check your internet connection.
   - Try installing extensions from the command line:

   ```
   code --install-extension <extension-id>
   ```

3. **VS Code Not Opening** If VS Code does not open:

   - Try launching it from the terminal:

   ```
   code .
   ```

   - Reinstall VS Code if the issue persists.

For further assistance, refer to the VS Code Documentation.