Installation Guide for Python, Visual Studio Code, and Anaconda

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0. MacOS Users – NOTICE: MUST READ!!!

Since we're installing multiple packages, we'll need to use a tool called a package manager. For macOS, we'll use the Homebrew package manager. Follow these steps to install Homebrew:

1. Open the Terminal app.
2. Install Homebrew by running the following command:

```
/bin/bash -c "$(curl -fsSL
https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

3. Verify the installation:

```
brew --version
```

4. Update Homebrew to ensure you have the latest formulae:

```
brew update
```

Once Homebrew is installed, you can proceed with the steps outlined below for installing Python, Visual Studio Code, and Anaconda.

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1. Installing Python

macOS

1. Open the Terminal.
2. Run the following command to install Python:

```
brew install python
```

3. Verify the installation:

```
python3 --version
```

Windows

- **Using winget**:
    1. Open Command Prompt or PowerShell.
    2. Run the following command:
        - `winget install -e --id Python.Python.3`
    3. Verify the installation:
        - `python --version`
- **Using the Installer**:
    1. Visit the [official Python website](#).
    2. Download the installer for Windows.
    3. Run the installer *and check* "Add Python to PATH" during the setup.
    4. Complete the installation and verify as above.

Linux

- **RHEL-based (e.g , Fedora, RedHat, CentOS, etc):**
    1. Open the Terminal.
    2. Run the following commands:
        - `sudo dnf install python3`
    3. `python3 --version`
- **Debian-based (e.g., Ubuntu, Mint, etc):**
    1. Open the Terminal.
    2. Run the following commands:
        - `sudo apt update`
        - `sudo apt install python3`
        - `python3 --version`

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2. Installing Visual Studio Code

macOS

1. Open the Terminal.
2. Run the following command:

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

Windows

- **Using winget**:
    1. Open Command Prompt or PowerShell.
    2. Run the following command:
        - `winget install -e --id Microsoft.VisualStudioCode`
- **Using the Installer**:
    1. Visit the [Visual Studio Code website](#).
    2. Download the appropriate installer for Windows.
    3. Run the installer and follow the setup instructions.

Linux

- **RHEL-based:**
    1. Download the RPM package from the [Visual Studio Code website](#).
    2. Install it using:
        - `sudo rpm -i code*.rpm`
    3. Verify installation:
    4. `code --version`
- **Debian-based:**
    1. Download the DEB package from the [Visual Studio Code website](#).
    2. Install it using:
        - `sudo dpkg -i code*.deb`
        - `sudo apt-get install -f`
    3. Verify installation:
    4. `code --version`

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3. Installing Anaconda

macOS

1. Open the Terminal.
2. Run the following command:

```
brew install --cask anaconda
```

Windows

- **Using winget**:
    1. Open Command Prompt or PowerShell.
    2. Run the following command:
        - `winget install -e --id Continuum.Anaconda3`
- **Using the Installer**:
    1. Download the installer from the [official website](#).
    2. Run the installer and follow the setup instructions.
    3. Verify installation:

- conda --version

Linux

1. Download the Linux installer from the [official website](#).
2. Open the Terminal and navigate to the download directory.
3. Run the installer:

```
bash Anaconda3*.sh
```

4. Follow the on-screen instructions to complete the installation.
5. Verify installation:

```
conda --version
```