Visual Studio Code installation Guide

Pre-Workshop Guide

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What is Visual Studio Code?

As a developer, we need a code editor to help us run the code script. Code editor is one of the most important parts of our setup. Visual Studio Code (VS Code) is a free code editor which runs on the macOS, Linux and Windows operating systems. It comes with built-in support for JavaScript, TypeScript and Node.js and has a rich ecosystem of extensions for other languages (such as C++, C#, Java, Python, PHP, Go) and runtimes (such as .NET and Unity).

VSCode Installation

VS Code can runs on the macOS, Linux and Windows operating systems. Based on its official page, please follow this step to install VS Code on your machine:

Windows

- Download the Visual Studio Code installer for Windows.
- Run the installer (VSCodeUserSetup-{version}.exe). This will only take a minute.
- By default, VS Code is installed under C:{username}VS Code.

Note: .NET Framework 4.5.2 or higher is required for VS Code. If you are using Windows 7, make sure you have at least .NET Framework 4.5.2 installed.

MacOS

- Download Visual Studio Code for macOS.
- Double-click on the downloaded archive to expand the contents.
- Drag Visual Studio Code.app to the Applications folder, making it available in the Launchpad.
- Add VS Code to your Dock by right-clicking on the icon to bring up the context menu and choosing Options, Keep in Dock.

LINUX

You can do the installation method below if the Linux distribution is Debian or Ubuntu. - Download and install the .deb package (64-bit), either through the graphical software center if it's available, or through the command line with:

```
sudo apt install ./<file>.deb


# If you're on an older Linux distribution, you will need to run this instead:

# sudo dpkg -i <file>.deb

# sudo apt-get install -f # Install dependencies
```

If you want install manually without download .deb file before, you can follow this script:

```
curl https://packages.microsoft.com/keys/microsoft.asc | gpg --dearmor > packages.microsoft.gpg

sudo install -o root -g root -m 644 packages.microsoft.gpg /usr/share/keyrings/
sudo sh -c 'echo "deb [arch=amd64 signed-by=/usr/share/keyrings/packages.microsoft.gpg]
https://packages.microsoft.com/repos/vscode stable main" > /etc/apt/sources.list.d/vscode.list'
```

Then update the package cache and install the package using:

```
sudo apt-get install apt-transport-https

sudo apt-get update
sudo apt-get install code # or code-insiders
```

Extension

Lots of features provided by Visual Studio Code including Intellisense, Git Integration, Debugging, and extension features that add text editor capabilities. VS Code can be used directly without extensions as long as the programming flow is supported directly. But there are some programming paths that are not supported directly. Here we need the extension because it can add the ability to support the desired programming flow. VS Code Extensions are mostly made by third-party developers who are also contributors of VS Code. Extensions for VS Code can be seen in Market Extensions. If you have installed VS Code on your computer, you can find various extensions provided by VS Code in the Extensions menu or you can find it with a shortcut Ctrl+Shift+X.

Install an Extension

To be able to use extensions on VS Code, we need to install an extension that suits our needs. At this time, we need to install 2 extensions, Python and Anaconda.

1. Python

Python extension is needed because it has full support for the Python programming language including features in it that will help us later. If you want to install Python extension, you can follow the steps below:

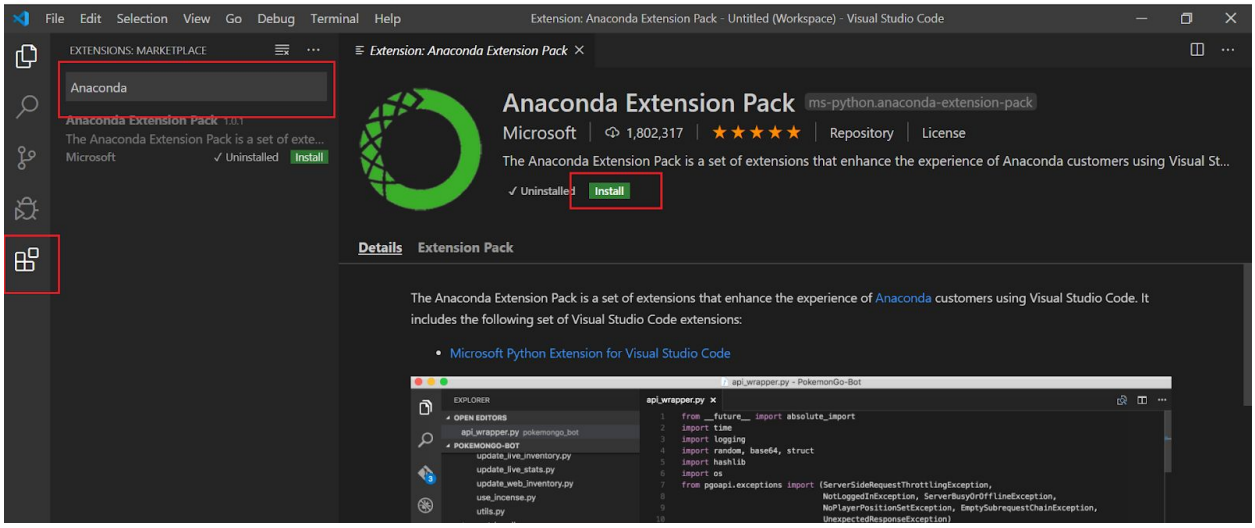
- Go to Extensions menu or use shortcuts Ctrl+Shif+X

- In the search box extensions, type Python. After that, several extensions will appear in VS Code. Select Python and VS Code will display python extension details.

- To install this extension, please click the Install button next to the python icon image.

2. Anaconda

The Python for Visual Studio Code extension allows VSC to connect to Python distributions installed on your computer. If you've installed Anaconda as your default Python installation and installed Python for Visual Studio Code, your VSC installation is already set to use Anaconda's Python interpreter. If you want to install Anaconda extension, you can follow this steps below: - Go to Extensions menu or use shortcuts Ctrl+Shif+X - In the search box extensions, type Anaconda. Select Anaconda and VS Code will display Anaconda extension details. - To install this extension, please click Install button next to the Anaconda icon image.

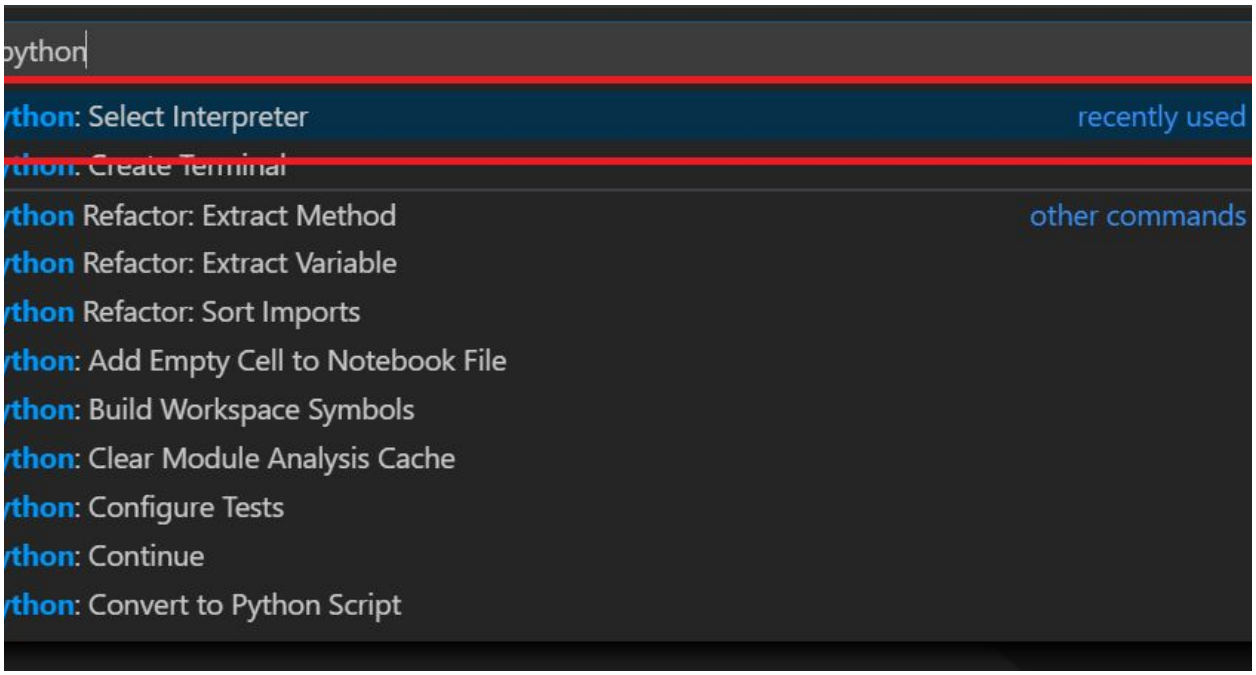


Working with Python Script

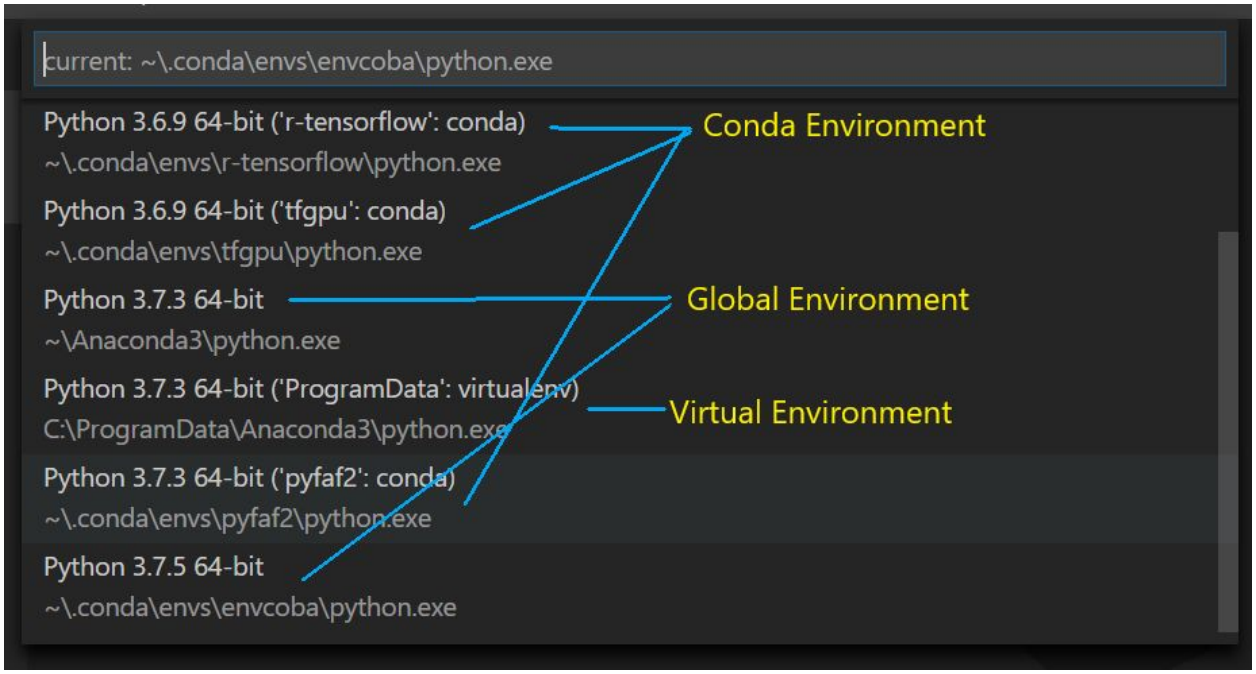
Important Notes: Please note that this guide assume you to already installed python environment. If you haven't installed it yet, please follow this_guide

Setting up Environment

Before running a python script on VS Code, it would be nice if we setting up the environment fist. You can use shortcut Ctrl+Shift+P on windows or Command+Shift+P on Mac to open the Command Palette. On the Command Palette type Python: Select Interpreter and select it.



The Python: Select Interpreter command displays a list of available global environments, conda environments, and virtual environments. Please choose the one that suits your needs (select the environment that you created before and have installed several packages needed to work on the project). This example uses a conda environment called pyfaf2 and uses python version 3.7.3. You can change the interpreter at any time according to the needs of the project being worked on.



At the bottom you can see a status bar that shows the active interpreter that is being used.