Quick Guide to Installing and Setting Up Python 2.7

This tutorial will guide you through the process of installing and setting up Python 2.7. Below is the list of tools that we will set up:

- The latest version of Python 2.7
- The `pip` package manager for Python

Part 1. Prerequisites

Before you begin, your computer should have the following tools.

- **A command-line interface**
    - to interact with your computer. This is something already bundled with any operating systems.

    On Windows, you can find the command-line interface by opening the "command prompt." Here are instructions for [Windows 8](#) and [earlier versions](#).

    On Mac, you can open the ["Terminal" application](#).

- **A text editor**
    - to work with plain text files.

    You need a program that works with simple "plain text" files such as Python scripts, HTML markup, and even csv data files.

    For Windows, I recommend installing [Notepad++](#).

    For Mac, try [TextWrangler](#).

Part 2. Downloading and Installing Python 2.7

On Windows:

1. **Download the latest version of Python 2.7 from Python's [official website](#).**

   As of 5/6/2016 the latest version available is [Python 2.7.11](#).

The installer is an MSI file. Choose "Windows x86-64 MSI installer" if you have a 64 bit machine, and choose "Windows x86 MSI installer" if you have a 32 bit machine.

Note: Please do not download Python 3 (such as Python 3.5.1)! We will use Python 2 (more specifically Python 2.7) instead of Python 3. Python 2 and Python 3 are very different and some of the packages only work on Python 2!

2. **Installation. Double-click the MSI file you have just downloaded.**

Important: Make sure you select the option to **add Python to your system path** during the installation process.

To do that, from the drop-down, select the option "Will be installed on local hard drive" (see screenshot below).
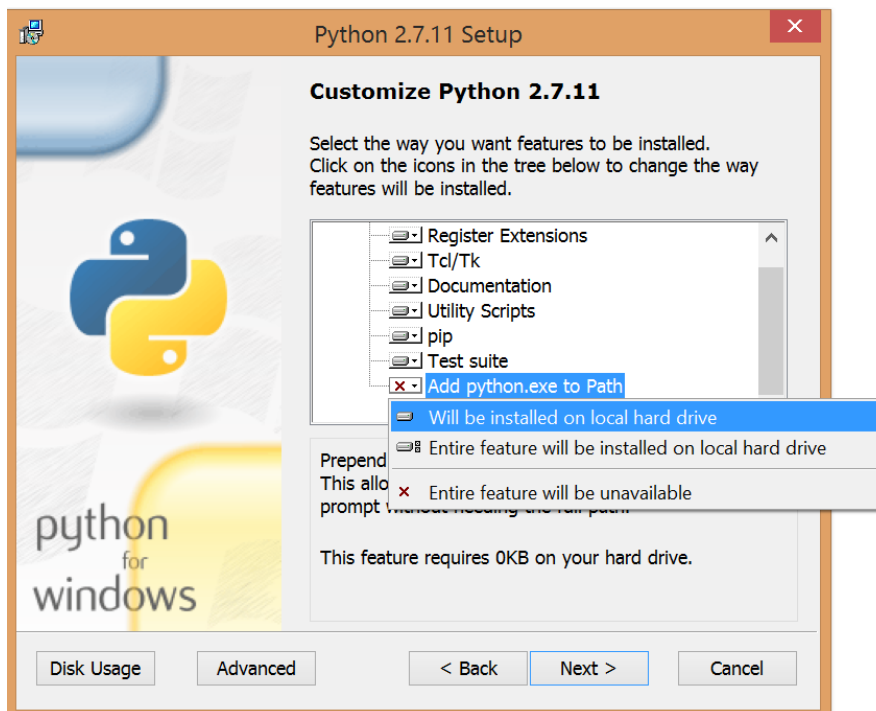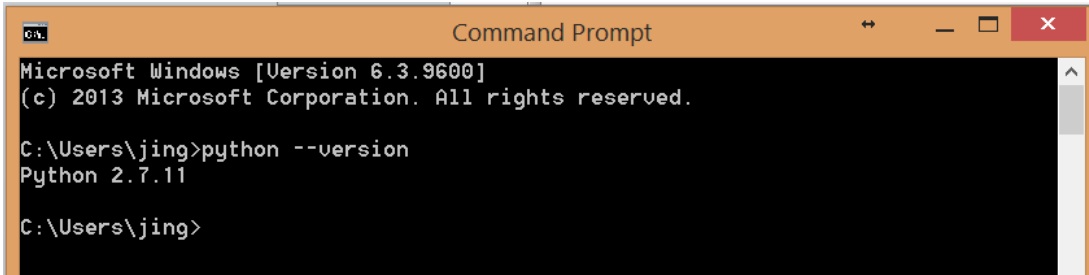

This step is crucial in Windows to make sure that the Python program is available on your system's PATH *so it can be called from anywhere without having to typing the full path name of each time. Otherwise you will have to modify your system's environment variables manually.*

By design, Python installs to a directory with the version number embedded, e.g. Python version 2.7 will install at C:\Python27\

3. **Confirming the Python Installation** (you may have to restart your computer for the changes to become effective)

Open the Command Prompt and enter **python --version**. It should read Python 2.7.11.
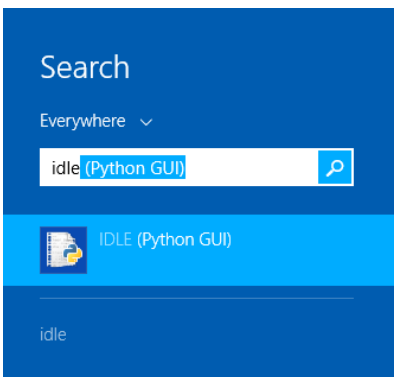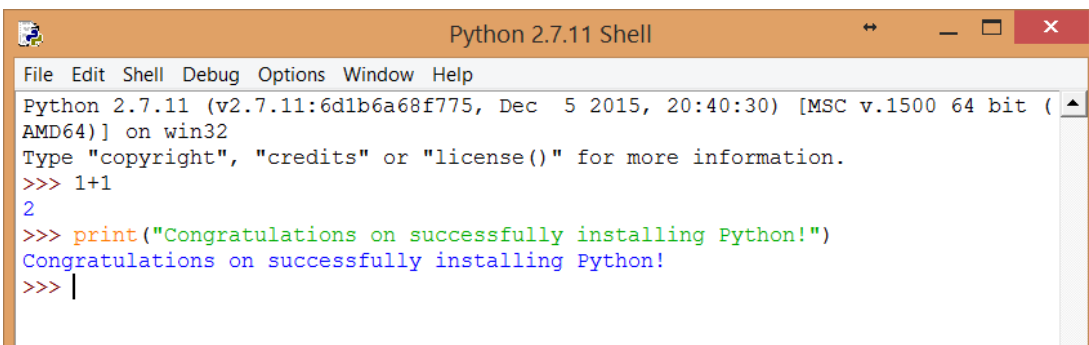

Alternatively, tap the **Windows** key on your keyboard and type "idle" to open the "IDLE (Python GUI)", where GUI stands for graphic user interface. You will open the Python Interactive Interpreter, a shell where you can enter commands and immediately see the results.

Once you open the IDLE, you can type in some simple commands (for example, 1+1) and then press Enter. Congratulations on successfully installing Python!

On Mac:

The latest version of Mac OS X, El Capitan, **comes with Python 2.7.** However, the version that comes with OS X may be out of date from the [official current Python release](#).

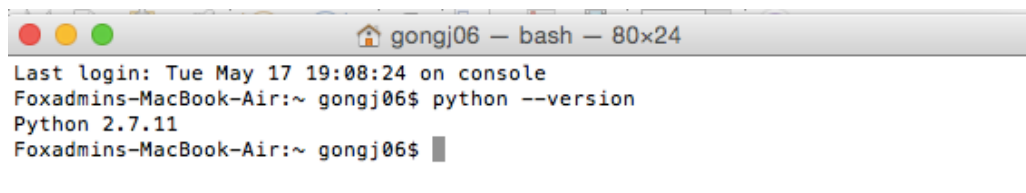**To make sure you have the latest version of Python, follow the instructions below:**

1. **Download the latest version of Python 2.7 from Python's [official website](#).**

   As of 5/6/2016 the latest version available is [Python 2.7.11](#).

   Choose the Mac OS X 64-bit/32-bit installer (not the PPC installer) from the link above.
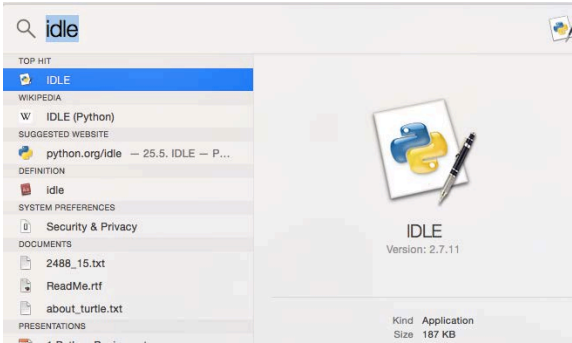
   Note: Please do not download Python 3 (such as Python 3.5.1)! We will use Python 2 (more specifically Python 2.7) instead of Python 3. Python 2 and Python 3 are very different and some of the packages only work on Python 2!

2. **Installation.** Double-click the python-2.7.11-macosx10.6.pkg file in the Downloads folder.

3. If you have Gatekeeper enabled, the installation will be blocked. Open System Preferences > Security & Privacy and click Open Anyway.

4. Click Continue, Agree and Install buttons in the Install Python window.

5. **Confirming the Python Installation.** Open Terminal and enter **python --version**. It should read Python 2.7.11.

   Alternatively, use `Cmd+Space` and type "`idle`" to select the "IDLE." You will open the Python Interactive Interpreter, a shell where you can enter commands and immediately see the results.

Once you open the IDLE, you can type in some simple commands (for example, 1+1) and then press Enter. Congratulations on successfully installing Python!

Part 3. Using `pip` to install packages

`pip` is a package installation manager for Python. Starting with Python 2.7.9, it is included by default with the Python installers.

Installing `pip` in versions of Python prior to Python 2.7.9?

My suggestion would be to uninstall the any prior version you have on your computer, and install the latest version of Python instead. If you prefer to stick to the version you already installed, check the instructions here:
[Python Packaging User Guide: Requirements for Installing Packages](#)

1. **Upgrading `pip`**

   You'll need to upgrade pip using the command line interface (see Part 1 for how to open the command line interface. On Windows it is called "Command Prompt", and on Mac it is called "Terminal").

On Windows, open Command Prompt and type:

```
python -m pip install -U pip
```

On OS X, open Terminal and type:

```
pip install -U pip
```

2. **Installing packages**

To use `pip` to install packages, you again need to use the <u>command line interface</u> (see
<u>Part 1</u> for how to open the command line interface. On Windows it is called "Command
Prompt", and on Mac it is called "Terminal").

The most common scenario is to install type the following in the command line interface:

```
pip install SomePackage
```

For example, we will use the <u>beautiful soup</u> package for web scraping. So try to type the
following in the command line interface:

```
pip install beautifulsoup4
```

For more information and examples, see the <u>pip install</u> reference.