

Python – Environment Setup

Python is available on a wide variety of platforms including Linux and Mac OS X. Let's understand how to set up our Python environment.

Getting Python :

The most up-to-date and current source code, binaries, documentation, news, etc., is available on the official website of Python <https://www.python.org/>

You can download Python documentation from <https://www.python.org/doc/>. The documentation is available in HTML, PDF, and PostScript formats.

Installing Python :

Python distribution is available for a wide variety of platforms. You need to download only the binary code applicable for your platform and install Python.

If the binary code for your platform is not available, you need a C compiler to compile the source code manually. Compiling the source code offers more flexibility in terms of choice of features that you require in your installation.

Here is a quick overview of installing Python on various platforms –

Windows Installation :

Here are the steps to install Python on Windows machine.

- Open a Web browser and go to <https://www.python.org/downloads/>.
- Follow the link for the Windows installer *python-XYZ.msi* file where XYZ is the version you need to install.
- To use this installer *python-XYZ.msi*, the Windows system must support Microsoft Installer 2.0. Save the installer file to your local machine and then run it to find out if your machine supports MSI.
- Run the downloaded file. This brings up the Python install wizard, which is really easy to use. Just accept the default settings, wait until the install is finished, and you are done.

Macintosh Installation :

Recent Macs come with Python installed, but it may be several years out of date. See <http://www.python.org/download/mac/> for instructions on getting the current version along with extra tools to support development on the Mac. For older Mac OS's before Mac OS X 10.3 (released in 2003), MacPython is available.

Jack Jansen maintains it and you can have full access to the entire documentation at his website – <http://www.cwi.nl/~jack/macpython.html>. You can find complete installation details for Mac OS installation.

Setting up PATH :

Programs and other executable files can be in many directories, so operating systems provide a search path that lists the directories that the OS searches for executables.

The path is stored in an environment variable, which is a named string maintained by the operating system. This variable contains information available to the command shell and other programs.

The **path** variable is named as PATH in Unix or Path in Windows (Unix is case sensitive; Windows is not).

In Mac OS, the installer handles the path details. To invoke the Python interpreter from any particular directory, you must add the Python directory to your path.

Setting path at Unix/Linux :

To add the Python directory to the path for a particular session in Unix –

- **In the csh shell** – type `setenv PATH "$PATH:/usr/local/bin/python"` and press Enter.
- **In the bash shell (Linux)** – type `export PATH="$PATH:/usr/local/bin/python"` and press Enter.
- **In the sh or ksh shell** – type `PATH="$PATH:/usr/local/bin/python"` and press Enter.
- **Note** – /usr/local/bin/python is the path of the Python directory

Setting path at Windows :

To add the Python directory to the path for a particular session in Windows –

At the command prompt – type `path %path%;C:\Python` and press Enter.

Note – C:\Python is the path of the Python directory

Running Python :

There are three different ways to start Python –

Interactive Interpreter

You can start Python from Unix, DOS, or any other system that provides you a command-line interpreter or shell window.

Enter **python** the command line.

Start coding right away in the interactive interpreter.

```
$python # Unix/Linux  
or  
python% # Unix/Linux  
or  
C:> python # Windows/DOS
```