



Beginning Python 3.0

Introduction

Python is a freeware open-source cross-platform interpreted scripting language used by NASA , Google , Honeywell and many other companies and now days its also being distributed along with all the major GNU/Linux distros.

Its been one the most favoured scripting languages due to its short and easy syntax which can perform complex tasks and is easily extended with new functions and data types implemented in C or C++ (or other languages callable from C). Python is also suitable as an extension language for customizable applications.

Many people might have tried using python before but on 03 Dec 2008 Python 3.0 was released which is a major update to python syntax making its interpreter faster and more efficient.

Installing Python 3.0

1)For Windows

Go to <http://python.org/download/>
and download software depending on your OS's architecture

2)Linux

a) First Search in your Package Manager for python 3.0 (it probably is installed)
if not try to install from the repos else:

Go to <http://python.org/download/>
and download the bz package and extract it.

b) Open a terminal in root / superuser mode

```
cd <dir>
```

where <dir> is the path .

c) `./configure`

d) `make`

e) `make altinstall` (this preserves current python version , else do `make install`)

If you get any dependency errors ,don't be scared just try to find them using your package manager or use google to find them.

For Old Python Users:

- Basic syntax had changed but you would get used to it.
- There's a tool to convert old syntax scripts to new [2to3](#) *.(unstable)*

Getting Started

-**Windows users** can add python to their environment variables

My Computer>Properties>(Advanced System Settings in vista)>Advanced

Go to Environment Variables >Scroll bottom scroll bar, select PATH and click edit
Add to the end ;<path where its installed>;

Now a script can be written anywhere and executed by

```
python <file-name> in dos
```

-Open DOS or terminal and enter *python* or *python3.0* .Upon pressing enter an interactive shell shall open with current python version and install date and time and OS type you are using.

Basics

- *print("Hello")* prints Hello , to know more about any command use *help(<name>)*

so *help(print)* brings the command info.

-Unlike older versions python now classifies strings into *data* and *text*. All Text is Unicode represented by type *str* and all data is encoded Unicode represented as binary data by *byte*. Both are immutable cannot be inter-converted as in older versions.

-A python script can be written by writing the code in a text file with extension *.py* Also in Linux / Unix based systems the first line can give the interpreter version

```
#!/usr/bin/env python      or  #!/usr/bin/env python3.0
```

(If you have multiple versions of python its HIGHLY recommended to stick to 3.x versions)

-Python is strictly indentation based, so give same indentation at each **level**.

```
Eg.          i=0          1
              while i<5:    2
                  print (i)  3
                  i+=1       4
```

So inside the file line 1 & 2 have same indentation while those inside *while* loop (line 3 &4) have same indentation but different from outside level.

(To Be Continued ..)

For FAQs and More Info Visit <http://docs.python.org/dev/3.0/> or <http://docs.python.org/>