

# How to Install Python 3?

## Install Python

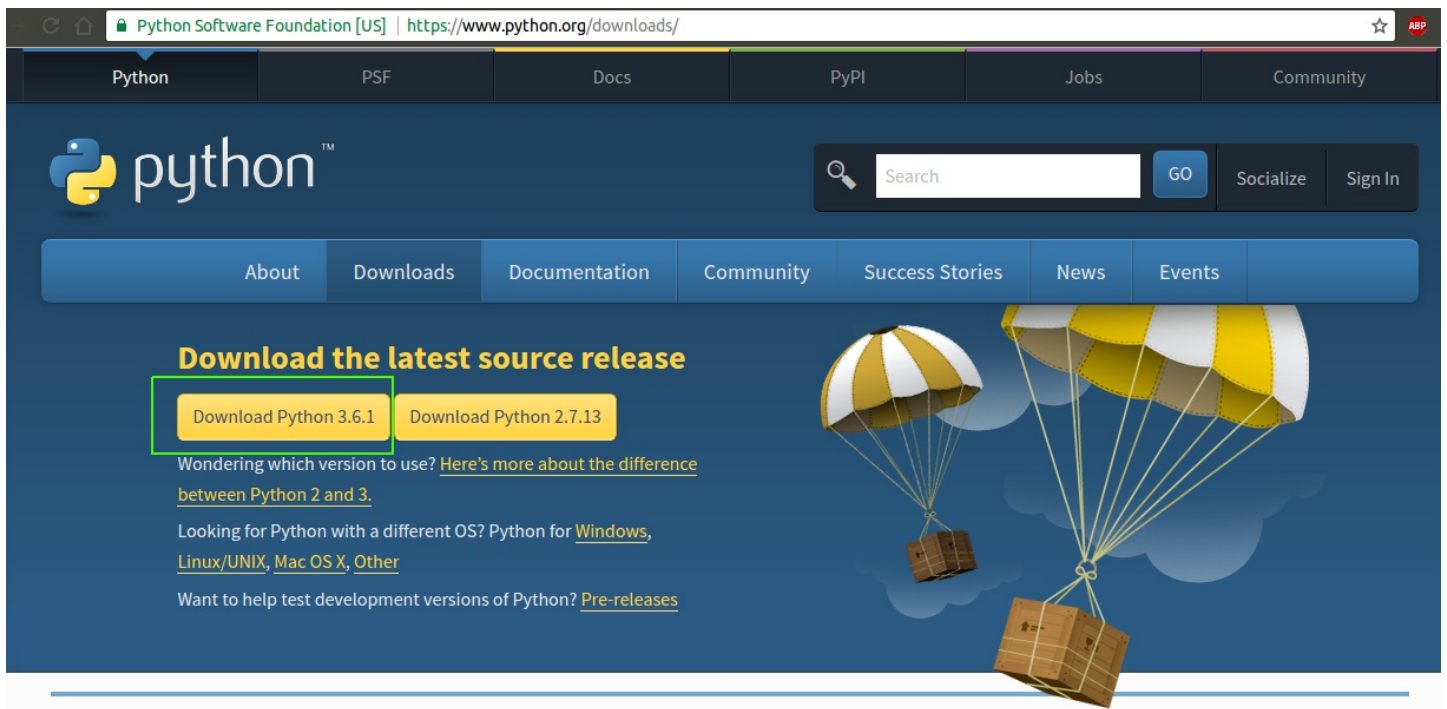
In this Python Tutorial, we shall download latest python package and install python to start development in Python language.

### Steps to Install Python

#### Step 1: Download Python

Download latest Python package available at [<https://www.python.org/downloads/>].

While preparing this tutorial, Python 3.6.1 is the latest available.



Python Download Page

#### Step 2: Build Instructions

Unzip the downloaded package. Open README.rst file and follow the instructions under "Build Instructions".

##### Build Instructions

On Unix, Linux, BSD, macOS, and Cygwin::

```
./configure
make
make test
sudo make install
```

This will install Python as python3.

Open the terminal and navigate to the folder.

```
Terminal File Edit View Search Terminal Help
arjun@arjun-VPCEH26EN:~/Python-3.6.1$ ls
aclocal.m4      Include      Modules      python
build          install-sh   Objects      Python
config.guess   Lib         Parser       python-config
config.log     libpython3.6m.a PC            python-config.py
config.status  LICENSE     PCbuild      python-gdb.py
config.sub     Mac         platform     README.rst
figure        Makefile    Programs     setup.py
configure.ac   Makefile.pre pybuilddir.txt Tools
Doc           Makefile.pre.in pyconfig.h
Grammar       Misc        pyconfig.h.in
arjun@arjun-VPCEH26EN:~/Python-3.6.1$
```

Python folder

### Step 3: Configure

```
./configure
```

```
arjun@arjun-VPCEH26EN: ~/Python-3.6.1
arjun@arjun-VPCEH26EN:~/Python-3.6.1$ ./configure
checking build system type... x86_64-unknown-linux-gnu
checking host system type... x86_64-unknown-linux-gnu
checking for python3.6... no
checking for python3... python3
checking for --enable-universalsdk... no
checking for --with-universal-archs... no
checking MACHDEP... linux
checking for --without-gcc... no
checking for --with-icc... no
checking for gcc... gcc
checking whether the C compiler works... yes
checking for C compiler default output file name... a.out
checking for suffix of executables...
checking whether we are cross compiling... no
checking for suffix of object files... o
checking whether we are using the GNU C compiler... yes
checking whether gcc accepts -g... yes
checking for gcc option to accept ISO C89... none needed
checking how to run the C preprocessor... gcc -E
checking for grep that handles long lines and -e... /bin/grep
checking for a sed that does not truncate output... /bin/sed
checking for --with-cxx-main=<compiler>... no
checking for g++... no
```

```
./configure
```

### Step 4: Make

```
make
```

```
arjun@arjun-VPCEH26EN: ~/Python-3.6.1
checking for the Linux getrandom() syscall... yes
checking for the getrandom() function... no
configure: creating ./config.status
config.status: creating Makefile.pre
config.status: creating Modules/Setup.config
config.status: creating Misc/python.pc
config.status: creating Misc/python-config.sh
config.status: creating Modules/ld_so_aix
config.status: creating pyconfig.h
creating Modules/Setup
creating Modules/Setup.local
creating Makefile

If you want a release build with all optimizations active (LTO, PGO, etc),
please run './configure --enable-optimizations'

arjun@arjun-VPCEH26EN:~/Python-3.6.1$ make
gcc -pthread -c -Wno-unused-result -Wsign-compare -DNDEBUG -g -fwrapv -O3 -Wall
-Wstrict-prototypes -std=c99 -Wextra -Wno-unused-result -Wno-unused-parameter
-Wno-missing-field-initializers -I. -I./Include -DPy_BUILD_CORE -o Program
s/python.o ./Programs/python.c
```

make

“make test” command is optional, so we skip that part.

### Step 5: Install

```
sudo make install
```

```
arjun@arjun-VPCEH26EN: ~/Python-3.6.1
/usr/bin/install -c python-config.py /usr/local/lib/python3.6/config-3.6m-x86_64-linux
-gnu/python-config.py
/usr/bin/install -c python-config /usr/local/bin/python3.6m-config
./python -E ./setup.py install \
  --prefix=/usr/local \
  --install-scripts=/usr/local/bin \
  --install-platlib=/usr/local/lib/python3.6/lib-dynload \
  --root=/
running install
running build
running build_ext
INFO: Can't locate Tcl/Tk libs and/or headers
warning: building with the bundled copy of libffi is deprecated on this platform. It
will not be distributed with Python 3.7

Python build finished successfully!
The necessary bits to build these optional modules were not found:
_bz2          _curses      _curses_panel
_dbm          _gdbm        _lzma
_sqlite3     _tkinter     readline
To find the necessary bits, look in setup.py in detect_modules() for the module's name
The following modules found by detect_modules() in setup.py, have been
```

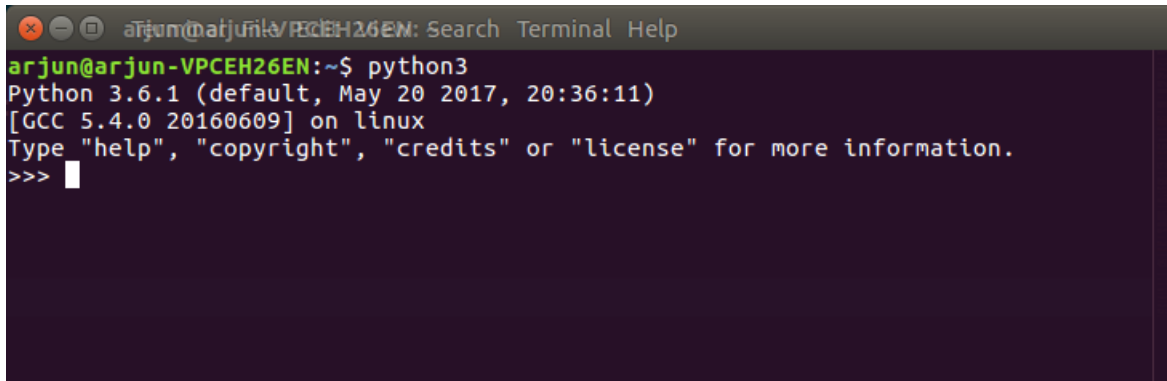
Install

[By the way in the background, its Joey from FRIENDS]

### Step 6: Verify Python Installation

Open the terminal and start python with the following command.

python3

A terminal window screenshot showing the execution of the 'python3' command. The terminal title bar reads 'arjun@arjun-VPCEH26EN: Search Terminal Help'. The command prompt shows 'arjun@arjun-VPCEH26EN:~\$ python3'. The output displays 'Python 3.6.1 (default, May 20 2017, 20:36:11)' followed by '[GCC 5.4.0 20160609] on linux' and 'Type "help", "copyright", "credits" or "license" for more information.'. The prompt then changes to '>>>' with a cursor, indicating the Python shell is active.

```
arjun@arjun-VPCEH26EN:~$ python3
Python 3.6.1 (default, May 20 2017, 20:36:11)
[GCC 5.4.0 20160609] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

## Python Installation Verification

Python3 shell starts.. And python3 is installed on the computer.

## Conclusion

We have successfully done Python Installation.

## Python Programming

↳ [Python Tutorial](#)

↳ [Install Python](#)

↳ [Install Anaconda Python](#)

↳ [Python HelloWorld Program](#)

↳ [Python Variables](#)

↳ [Python Variable Data Type Conversion](#)

↳ [Python Comments](#)

## Control Statements

↳ [Python If](#)

↳ [Python If Else](#)

↳ [Python While Loop](#)

↳ [Python For Loop](#)

## Python String

↳ [Python String Methods](#)

↳ [Python String Length](#)

↳ [Python String Replace](#)

↳ [Python Split String](#)

↳ [Python Count Occurrences of Sub-String](#)

↳ [Python Sort List of Strings](#)

## Functions

↳ [Python Functions](#)

## Python Collections

↳ [Python List](#)

↳ [Python Dictionary](#)

## Advanced

↳ [Python Multithreading](#)

## Useful Resources

↳ [Python Interview Questions](#)