

Lesson Description - (Optional) Installing Python 3 on Debian/Ubuntu

Learn how to install Python 3 from source on a Debian or Ubuntu machine. This video uses an Ubuntu 16.04 Linux Academy Cloud Server.

Download and Install Python 3 from Source

Here are the commands that we'll run to build and install Python 3:

```
$ sudo su -
[root] $ apt update -y
[root] $ apt install -y \
    wget \
    build-essential \
    libssl-dev \
    zlib1g-dev \
    libbz2-dev \
    libreadline-dev \
    libsqlite3-dev \
    libncurses5-dev \
    libncursesw5-dev \
    xz-utils \
    tk-dev

[root] $ cd /usr/src
[root] $ wget http://python.org/ftp/python/3.6.4/Python-3.6.4.tar.xz
[root] $ tar xf Python-3.6.4.tar.xz
[root] $ cd Python-3.6.4
[root] $ ./configure --enable-optimizations
[root] $ make altinstall
[root] $ exit
```

Note: `make altinstall` causes it to not replace the built in `python` executable.

Ensure that `secure_path` in `/etc/sudoers` file includes `/usr/local/bin`. The line should look something like this:

```
Defaults      secure_path="/usr/local/sbin:/usr/local/bin:/usr/
sbin:/usr/bin:/sbin:/bin:/snap/bin"
```

Upgrade Pip (Might not be Necessary)

The version of `pip` that we have might be up-to-date, but it's good practice to try to update it after the installation. We need to use the `pip3.6` executable because we're working with Python 3, and we use `sudo` so that we can write files under the `/usr/local` directory.

```
$ sudo pip3.6 install --upgrade pip
```