**Install Python 3.11 on Ubuntu, Debian and LinuxMint**

**Prerequisites:-**

The compilation of source code required multiple build libraries on the system. Which can be installed by running the following command before proceeding with the next steps.

**sudo apt install build-essential checkinstall**

**sudo apt install libreadline-gplv2-dev libncursesw5-dev libssl-dev libsqlite3-dev tk-dev libgdbm-dev libc6-dev libbz2-dev**

**Installing Python 3.11 using Source Code**

If the repository doesn’t contain the Python packages for your system, install it by compiling it from the source code.

Download Python 3.11 source code: Python 3.11.1 version is available for installation. You can visit the Python official websites to check for the latest available version. Use the following commands to download the Python 3.11 source code.

**cd /usr/src**

**sudo wget https://www.python.org/ftp/python/3.11.3/Python-3.11.3.tgz**

Extract archive:Once the download is finished, extract the archive file content.

**sudo tar xzf Python-3.11.3.tgz**

Prepare source code: Now prepare the source code as per your system architecture and environment using the ./configure script. Also use --enable-optimizations option with configure command to enable additional supports like SSL, bz2 support.

**cd Python-3.11.3**

**sudo ./configure --enable-optimizations**

Compile and install: After preparing the source code, compile it using the make command. Make use of altinstall, to install it as a separate Python. So that this will not overwrite the existing Python installation.

**sudo make altinstall**

make altinstall is used to prevent replacing the default python binary file /usr/bin/python.

**Step 3: Check Python Version**

Finally, you have successfully installed Python 3.11 on your system. Let’s check the version installed with python using the below command.

To check python version

**python3.11 -V**

output: -

**Python 3.11.3**

**Step 4: Installing PIP**

If you have installed Python using the package manager, the PIP will not be installed by default. In that case, you will need to install it manually. To install PIP, execute the following command.

**curl -sS https://bootstrap.pypa.io/get-pip.py | python3.11**

Once the PIP is installed successfully, check its version by executing the command:

To check pip version

**pip3.11 -V**

output: -

pip 22.3.1 from /usr/local/lib/python3.11/dist-packages/pip (python 3.11)