

How to Improve the Python Development Experience for Millions of Ubuntu Users

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Canonical

Disclaimer

Vim vs Emacs



Python developer survey 2022



Independence



Building blocks

All about me

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Python



What is even Python?



What about pip, venv and friends?

Python on Ubuntu

version	code name	python	go	debhelper	end of standard support	eol
16.04	xenial xerus	3.5	?	9	04/2021	04/2026
18.04	bionic beaver	3.6	?	11	04/2023	04/2028
20.04	focal fossa	3.8	1.13 + 1.14	12	04/2025	04/2030
22.04	jammy jellyfish	3.10	?	13	04/2027	04/2032
24.04	noble numbat	3.12	?	13	04/2029	?

<https://jugmac00.github.io/blog/ubuntu-versions-cheat-sheet/>



Word of caution

Askubuntu

<https://askubuntu.com/questions/tagged/python>

Can't start terminal in any way, or TTY, after installing Python 3.12 on Ubuntu 20.04 [duplicate]

Asked 26 days ago Modified 26 days ago Viewed 53 times

<https://askubuntu.com/q/1508787/846261>



Ubuntu

Home

Questions

Tags

How to replace python3.10 with python3.12 in ubuntu 22.04 [duplicate]

Asked 4 months ago Modified 4 months ago Viewed 13k times

This error occurred in addition to the below error when I changed the python3 version:

```
Traceback (most recent call last):
  File "/usr/bin/apt-listchanges", line 29, in <module>
    import apt_pkg
ModuleNotFoundError: No module named 'apt_pkg'
```

<https://askubuntu.com/q/1495450/846261>



What is Python on Ubuntu?



... but not all of Python



... but more than Python

Pitfalls of system packages

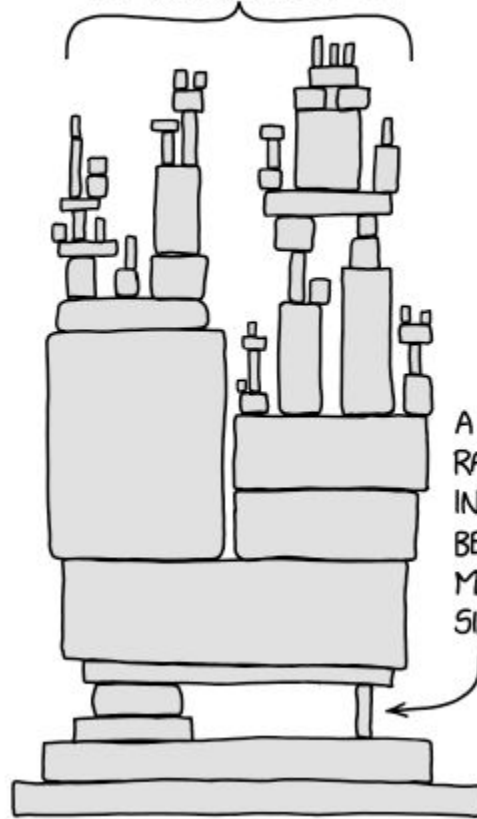


Many ways

deadsnakes ppa

<https://launchpad.net/~deadsnakes/+archive/ubuntu/ppa>

ALL MODERN DIGITAL
INFRASTRUCTURE



A PROJECT SOME
RANDOM PERSON
IN NEBRASKA HAS
BEEN THANKLESSLY
MAINTAINING
SINCE 2003

Compile from source

<https://devguide.python.org/getting-started/setup-building/>

pyenv

<https://github.com/pyenv/pyenv>

hatch

<https://github.com/pyenv/pyenv>

rye

<https://rye-up.com/>

Conda

<https://docs.conda.io/en/latest/>



Which is the right way?

Exploding numbers



Maybe a new way?

HOW STANDARDS PROLIFERATE:
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)



<https://xkcd.com/927>



Tools



```
sudo pip install broken-system
```

pip error on Ubuntu: externally-managed-environment × This environment is externally managed



Had the same error on my Ubuntu 23.04. I tried `pip install {package_name} --break-system-packages` It worked for me. Hope it helps. Thank you.

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<https://askubuntu.com/q/1495450/846261>



To install or not install

tox / nox / hatch / pre-commit



pipx

pipx -> tox -> precommit -> flake8



The essential question



The future

Thank you!



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