```
# Python 3: Fibonacci series up to n
>>> def fib(n):
>>>     a, b = 0, 1
>>>     while a < n:
>>>         print(a, end=' ')
>>>         a, b = b, a+b
>>>     print()
>>> fib(1000)
0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987
```

Functions Defined

The core of extensible programming is defining functions. Python allows mandatory and optional arguments, keyword arguments, and even arbitrary argument lists. More about defining functions in Python 3

Python is a programming language that lets you work quickly and integrate systems more effectively.
⟫⟫ Learn More

⏻ Get Started

Whether you're new to programming or an experienced developer, it's easy to learn and use Python.

Start with our Beginner's Guide (/about/gettingstarted/)

⬇ Download

Python source code and installers are available for download for all versions!

Latest: Python 3.13.1 (/downloads/release/python-3131/)

⬠ Docs

Documentation for Python's standard library, along with tutorials and guides, are available online.

docs.python.org (https://docs.python.org)

💼 Jobs

Looking for work or have a Python related position that you're trying to hire for? Our **relaunched community-run job board** is the place to go.

jobs.python.org (//jobs.python.org)

📰 Latest News

2025-01-14	Python 3.14.0 alpha 4 is out (https://pythoninsider.blogspot.com/2025/01/python-3140-alpha-4-is-out.html)
2025-01-14	Powering Python together in 2025, thanks to our community! (https://pyfound.blogspot.com/2025/01/powering-python-together-in-2025-thanks.html)
2024-12-19	PSF Grants: Program & Charter Updates (TLDR) (https://pyfound.blogspot.com/2024/12/psf-grants-program-charter-updates-tldr.html)
2024-12-19	PSF Grants: Program & Charter Updates (Part 2) (https://pyfound.blogspot.com/2024/12/psf-grants-program-charter-updates-part-2.html)
2024-12-19	PSF Grants: Program & Charter Updates (Part 3) (https://pyfound.blogspot.com/2024/12/12psf-grants-program-charter-updates-part-3.html)

📅 Upcoming Events

2025-01-15	Helsinki Python meetup (/events/python-user-group/1883/)
2025-01-16	PyLadies Amsterdam (/events/python-user-group/1880/)
2025-01-22	Python Meeting Düsseldorf (/events/python-user-group/1855/)
2025-01-24	PyCon+Web 2025 (/events/python-events/1882/)
2025-01-27	Python Leiden User Group (/events/python-user-group/1884/)

❈ Success Stories

> *Maintaining our ever-evolving Python codebase poses an intricate challenge: how do we make updates to reflect the changing rules and regulations of 200+ global markets without compromising access to the systems that our engineers and traders use on a daily basis? While an inner layer of shared business logic enables coherency in our codebase performance, it also means small regulatory changes can impact many systems. In this article, Python Engineer John Lekberg details how we use Python type annotations to minimize the time and risk involved in manual verification. (/success-stories/building-robust-codebases-with-pythons-type-annotations/)*

Building Robust Codebases with Python's Type Annotations (/success-stories/building-robust-codebases-with-pythons-type-annotations/) *by John Lekberg*

🐍 Use Python for...

Web Development:

Django (http://www.djangoproject.com/) , Pyramid (http://www.pylonsproject.org/) , Bottle (http://bottlepy.org) , Tornado (http://tornadoweb.org) ,

Flask (http://flask.pocoo.org/) , web2py (http://www.web2py.com/)

GUI Development:

tkInter (http://wiki.python.org/moin/TkInter) , PyGObject (https://wiki.gnome.org/Projects/PyGObject) , PyQt (http://www.riverbankcomputing.co.uk/software/pyqt/intro) ,

PySide (https://wiki.qt.io/PySide) , Kivy (https://kivy.org/) , wxPython (http://www.wxpython.org/) , DearPyGui (https://dearpygui.readthedocs.io/en/latest/)

Scientific and Numeric:

SciPy (http://www.scipy.org) , Pandas (http://pandas.pydata.org/) , IPython (http://ipython.org)

Software Development:

Buildbot (http://buildbot.net/) , Trac (http://trac.edgewall.org/) , Roundup (http://roundup.sourceforge.net/)

System Administration:

Ansible (http://www.ansible.com) , Salt (https://saltproject.io) , OpenStack (https://www.openstack.org) , xonsh (https://xon.sh)

Python Software Foundation (/psf/)

The mission of the Python Software Foundation is to promote, protect, and advance the Python programming language, and to

support and facilitate the growth of a diverse and international community of Python programmers. ≫ Learn more (/psf/)

Become a Member (/users/membership/)

Donate to the PSF (/psf/donations/)