

```
# 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 3.12.5](#) (</downloads/release/python-3125/>).

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](https://jobs.python.org))

Latest News

- 2024-08-07 [Security Developer-in-Residence role extended thanks to Alpha-Omega](https://pyfound.blogspot.com/2024/08/security-developer-in-residence-role.html) (<https://pyfound.blogspot.com/2024/08/security-developer-in-residence-role.html>),
- 2024-08-07 [Python 3.12.5 released](https://pythoninsider.blogspot.com/2024/08/python-3125-released.html) (<https://pythoninsider.blogspot.com/2024/08/python-3125-released.html>),
- 2024-08-01 [Python 3.13.0 release candidate 1 released](https://pythoninsider.blogspot.com/2024/08/python-3130-release-candidate-1-released.html) (<https://pythoninsider.blogspot.com/2024/08/python-3130-release-candidate-1-released.html>)
- 2024-07-26 [Notice of Python Software Foundation Bylaws change, effective 10 August 2024](https://pyfound.blogspot.com/2024/07/notice-of-python-software-foundation.html) (<https://pyfound.blogspot.com/2024/07/notice-of-python-software-foundation.html>),
- 2024-07-26 [Python's Supportive and Welcoming Environment is Tightly Coupled to Its Progress](https://pyfound.blogspot.com/2024/07/pythons-supportive-and-welcoming.html) (<https://pyfound.blogspot.com/2024/07/pythons-supportive-and-welcoming.html>).

Upcoming Events

- 2024-08-16 [SheDevelopers: Python Mastery Workshop 1st Edition](/events/python-user-group/1830/) (/events/python-user-group/1830/)
- 2024-08-21 [PyCon Somalia 2024](/events/python-events/1785/) (/events/python-events/1785/)
- 2024-08-23 [Kiwi PyCon XIII](/events/python-events/1716/) (/events/python-events/1716/).
- 2024-08-26 [EuroSciPy 2024](/events/python-events/1768/) (/events/python-events/1768/).
- 2024-08-26 [PyHEP.dev 2024](/events/python-events/1742/) (/events/python-events/1742/).

Success Stories

["Python is all about automating repetitive tasks, leaving more time for your other SEO efforts."](/success-stories/python-seo-link-analyzer/) (/success-stories/python-seo-link-analyzer/)

[Using Python scripts to analyse SEO and broken links on your site](/success-stories/python-seo-link-analyzer/) (/success-stories/python-seo-link-analyzer/) by Marnix de Munck

Use Python for...

Web Development:

[Django](http://www.djangoproject.com/) (<http://www.djangoproject.com/>) , [Pyramid](http://www.pylonsproject.org/) (<http://www.pylonsproject.org/>) , [Bottle](http://bottlepy.org/) (<http://bottlepy.org/>) , [Tornado](http://tornadoweb.org/) (<http://tornadoweb.org/>) , [Flask](http://flask.pocoo.org/) (<http://flask.pocoo.org/>) , [web2py](http://www.web2py.com/) (<http://www.web2py.com/>)

GUI Development:

[tkInter](http://wiki.python.org/moin/TkInter) (<http://wiki.python.org/moin/TkInter>) , [PyGObject](https://wiki.gnome.org/Projects/PyGObject) (<https://wiki.gnome.org/Projects/PyGObject>) , [PyQt](http://www.riverbankcomputing.co.uk/software/pyqt/intro) (<http://www.riverbankcomputing.co.uk/software/pyqt/intro>) , [PySide](https://wiki.qt.io/PySide) (<https://wiki.qt.io/PySide>) , [Kivy](https://kivy.org/) (<https://kivy.org/>) , [wxPython](http://www.wxpython.org/) (<http://www.wxpython.org/>) , [DearPyGui](https://dearpygui.readthedocs.io/en/latest/) (<https://dearpygui.readthedocs.io/en/latest/>)

Scientific and Numeric:

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

Software Development:

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

System Administration:

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

[Python Enhancement Proposals \(PEPs\)](/dev/peps/) (</dev/peps/>): The future of Python is discussed here.


 [RSS](/dev/peps/peps.rss) (</dev/peps/peps.rss>)


[Python Software Foundation](/psf/) (</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/) (</psf/>)

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 [Back to Top](#)

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