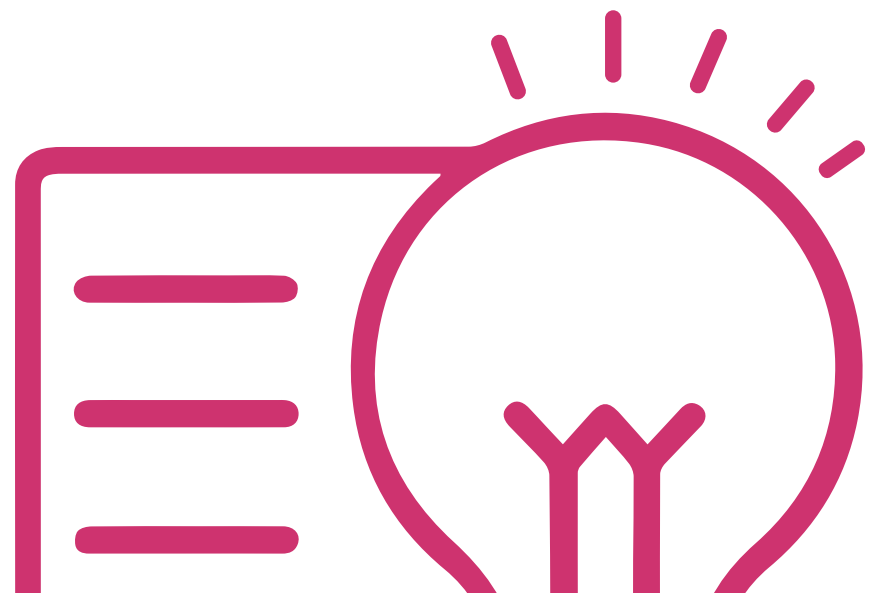


About Python
What is Python good for?
Who's using Python?
Installation
Ways to Run
Jupyter Setup
IDEs
Extensions
Versions
PyPi vs PyPy Confusion



About Python

1. Python is an **interpreted**, **interactive**, **object-oriented** programming language
2. Provides interfaces to many **system calls** and **libraries**
3. Extensible in **C** or **C++**
4. Usable as an **extension language** for applications that need a programmable interface
5. Python is **portable**

Modules

Exceptions

**Dynamic
Typing**

Classes

**Functional,
Procedural**



**File
Systems**

**System
Calls**

**Large
Standard
Library**

**String
Processing
(Regex)**

Unicode

**Python
Package
Index
Pypi**

Profiling

**General
Purpose**

PYTHON

What is it good for?

**Parsing
Python Code**

Logging

**High
Level**

**Calculating
differences
between
files**

**Internet
Protocols
(HTTP, FTP,
SMTP, XML-RPC,
POP, IMAP)**

**Unit
Testing**

**TCP / IP
Sockets**



who uses python today



All

Images

News

Videos

Books

More

Tools

About 6,72,00,000 results (0.57 seconds)

Python is used by Intel, IBM, NASA, Pixar, Netflix, Facebook, JP Morgan Chase, Spotify, and a number of other massive companies. It's one of the four main languages at Google, while Google's YouTube is largely written in Python. Same with Reddit, Pinterest, and Instagram.

In recent years, Python has seen a huge increase in jobs. There are currently more than 11,000 job advertisements worldwide on Glassdoor for Python-related roles, with Indeed having around 14,000 roles. Compared to the roles related to Java, Indeed currently has nearly double the amount for Python which only goes to show how big the Python job market is at the moment.

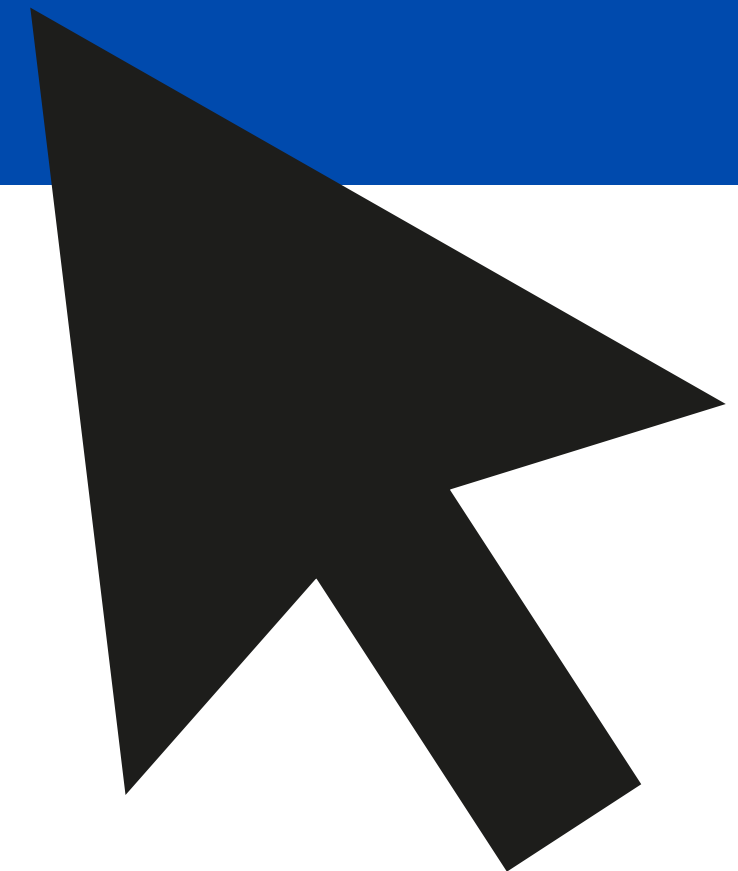
Download > Double click > Next > I Agree > Continue



python.org/downloads



Installing Python is a piece of cake



JupyterLab

PyCharm

Python IDEs

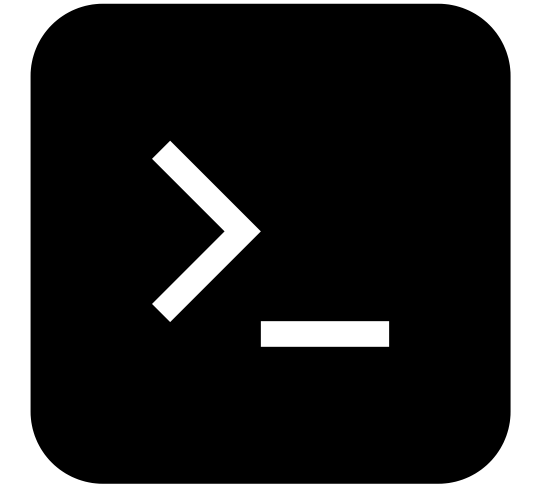
VS Code

Anaconda

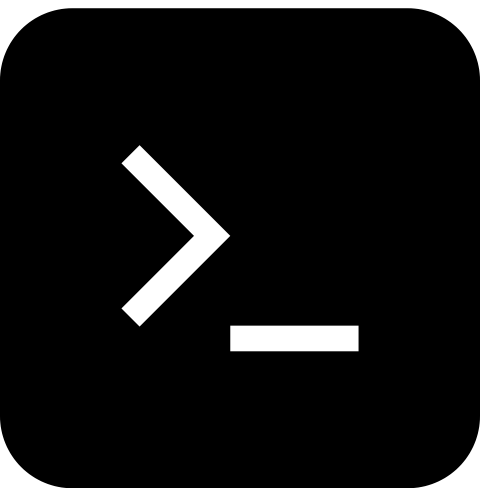
**Google
Collab**

step-1

```
1 cmd + space > terminal > return ( mac  
2 window + R > cmd > enter ( windows )  
3 ctrl + alt + t ( linux ubuntu )
```



How to invoke Python interpreter



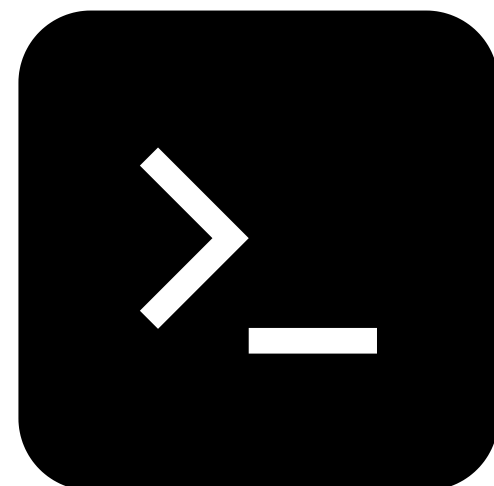
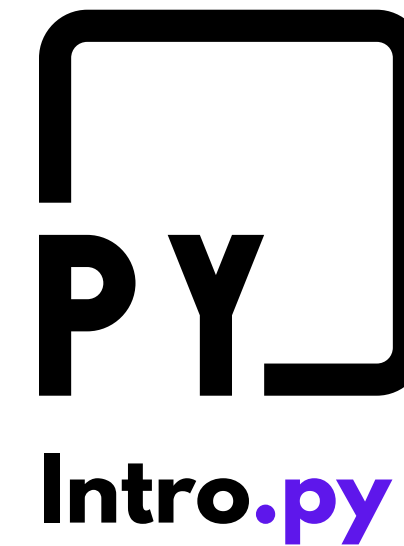
step-2

```
rishabhio — Python — 70x20  
[rishabhio@Playground ~ % python  
Python 3.11.3 (v3.11.3:f3909b8bc8, Apr  4 2023, 20:12:10) [Clang 13.0.  
0 (clang-1300.0.29.30)] on darwin  
Type "help", "copyright", "credits" or "license" for more information.  
>>> |
```

intro.py — 001-intro

intro.py

```
1  def hello():
2      print("Hello")
3
4
5  if __name__ == "__main__":
6      hello()
7
```



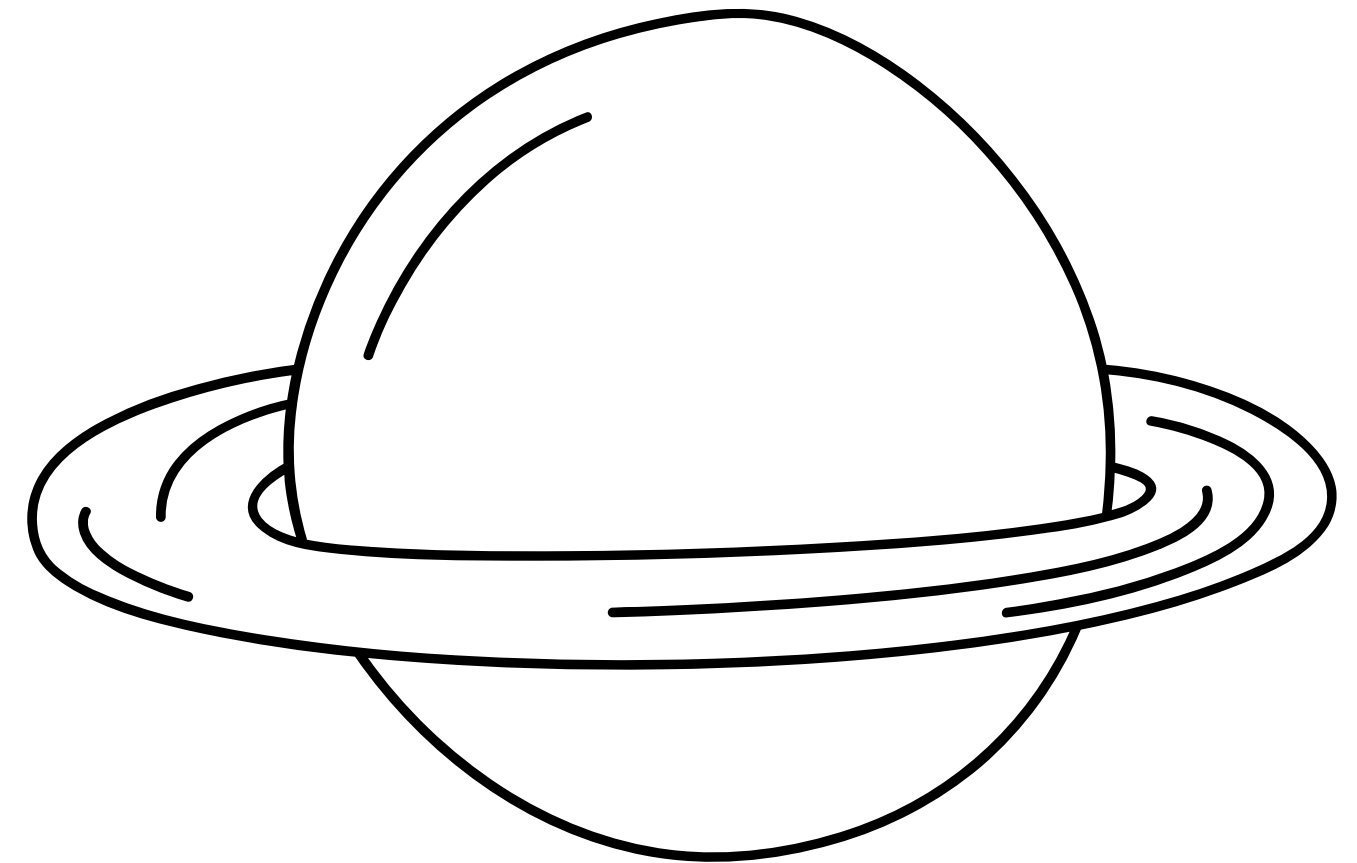
python Intro.py

Installing Jupyterlab

pip install jupyterlab

python -m jupyter-lab

jupyter



PYPI VS PYPY

Purpose: PyPy **runs** Python programs; PyPI **shares** Python packages.

Functionality: PyPy **executes** code faster; PyPI **extends** programming functionality.

Community: PyPy focuses on **performance**; PyPI on **sharing** Python packages.

Usage: PyPy **optimizes** performance; PyPI **provides** required Python packages.

Role: PyPy **executes** Python code; PyPI **provides** libraries and frameworks.

VERSIONS

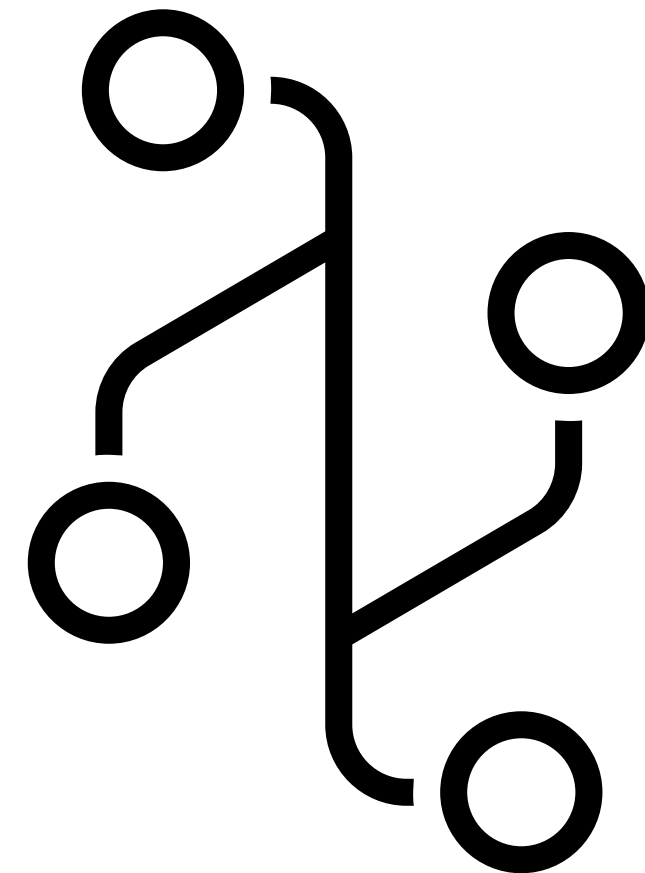
MAJOR is only incremented for really major changes in the language.

MINOR is incremented for less earth-shattering changes

MICRO is incremented for each bugfix release

A.B.C

3.10.11




VS Code Extensions




marketplace.visualstudio.com/items?itemName=ms-python.python

Visual Studio | Marketplace

Visual Studio Code > Programming Languages > Python




Python




Microsoft  microsoft.com |  86,314,327 installs |  (541) | Free

IntelliSense (Pylance), Linting, Debugging (multi-threaded, remote), Jupyter Notebooks, code formatting, refactoring, unit tests, and more.

[Install](#) [Trouble Installing?](#)



Black Formatter

Microsoft  microsoft.com |  467,821 installs | 

Formatting support for python files using `black`.

[Preview](#)

Hackerrank

PyCharm

Repl.it

JupyterLab

Python IDEs

Python Shell

VS Code

**Anaconda
Spyder**

**Google
Collab**