

Python Course

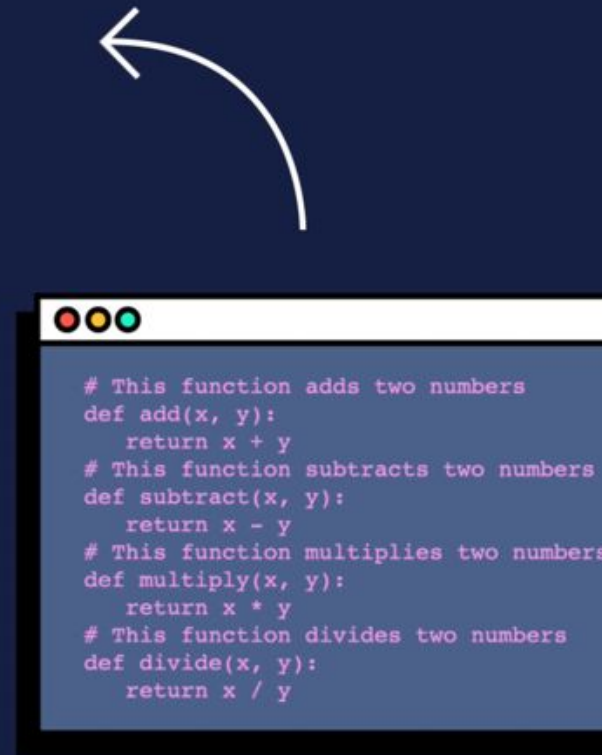
Introduction

Feb 2023
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Programming Language

Computer programming languages allow us to give instructions to a computer in a language the computer understands. Just as many human-based languages exist, there are an array of computer programming languages that programmers can use to communicate with a computer. The portion of the language that a computer can understand is called a “binary.” Translating programming language into binary is known as “compiling.” Each language, from C Language to Python, has its own distinct features, though many times there are commonalities between programming languages.



Programming Language

- It Guarantees You a Job
- No Need for a Four-Year Degree
- You Get to Work From Home
- You Can Create Anything You Want
- High Income Potential
- You Understand How Software Works
- It Teaches You Persistence
- You Learn To Combine Technical Skills and Creativity
- You Develop Problem Solving Skills
- Open Your Own Business

Most Popular Programming Languages in 2023

1. Javascript
- 2. Python**
3. Go
4. Java
5. Kotlin
6. PHP
7. C#
8. Swift
9. R
10. Ruby
11. C and C++
12. Matlab
13. TypeScript
14. Scala
15. SQL
16. HTML
17. CSS
18. NoSQL
19. Rust
20. Perl

Why python?

- It couldn't get simpler than Python!
- Python is highly flexible and extensible
- Python has a library to cater to your every need.
- Python makes web development a breeze
- There's plenty for Data Visualization
- Python comes with numerous testing frameworks
- Python is excellent for Machine learning
- Python is great for scripting
- Python is backed by an active community
- Python skills can command high salaries

C lang



C lang

```
#include <stdio.h>
int main(void)
{
    printf("Hello, world\n");
}
```

python



python :)

```
print("Hello, World\n")
```

Applications of python

- Web and Internet Development
- Scientific and Numeric
- Education
- Desktop GUIs
- Software Development
- Business Applications
- Image processing
- AI and more...

What we learn in this course?

- Basics of python
 - Variables, expressions, and statements
 - Conditional execution
 - Functions
 - Iteration
 - Strings
 - Lists
 - Dictionaries
 - Tuples
 - Files
- Numpy (basic)
- Matplotlib (basic)

IDE



Visual Studio Code

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Code editing. Redefined.

Free. Built on open source. Runs everywhere.



.deb

Debian, Ubuntu...



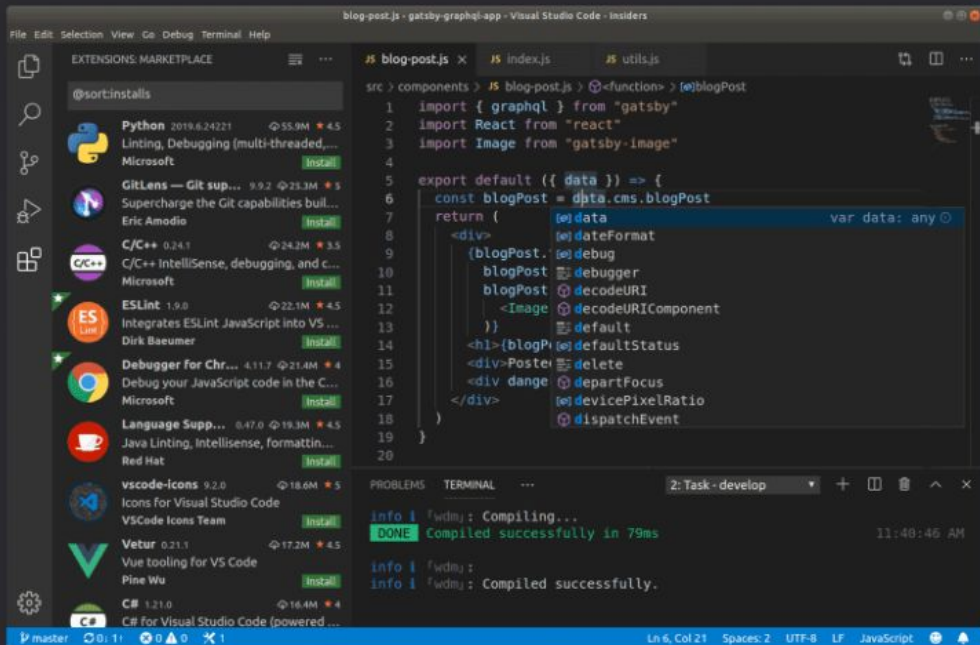
.rpm

Red Hat, Fedora...




[Web, Insiders edition, or other platforms](#)

By using VS Code, you agree to its
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Colab

 **Welcome To Colaboratory**
File Edit View Insert Runtime Tools Help

Share ⚙️ 👤

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Copy to Drive

to exit full screen

Connect ▾

Editing

⬆

Welcome to Colab!

If you're already familiar with Colab, check out this video to learn about interactive tables, the executed code history view, and the command palette.



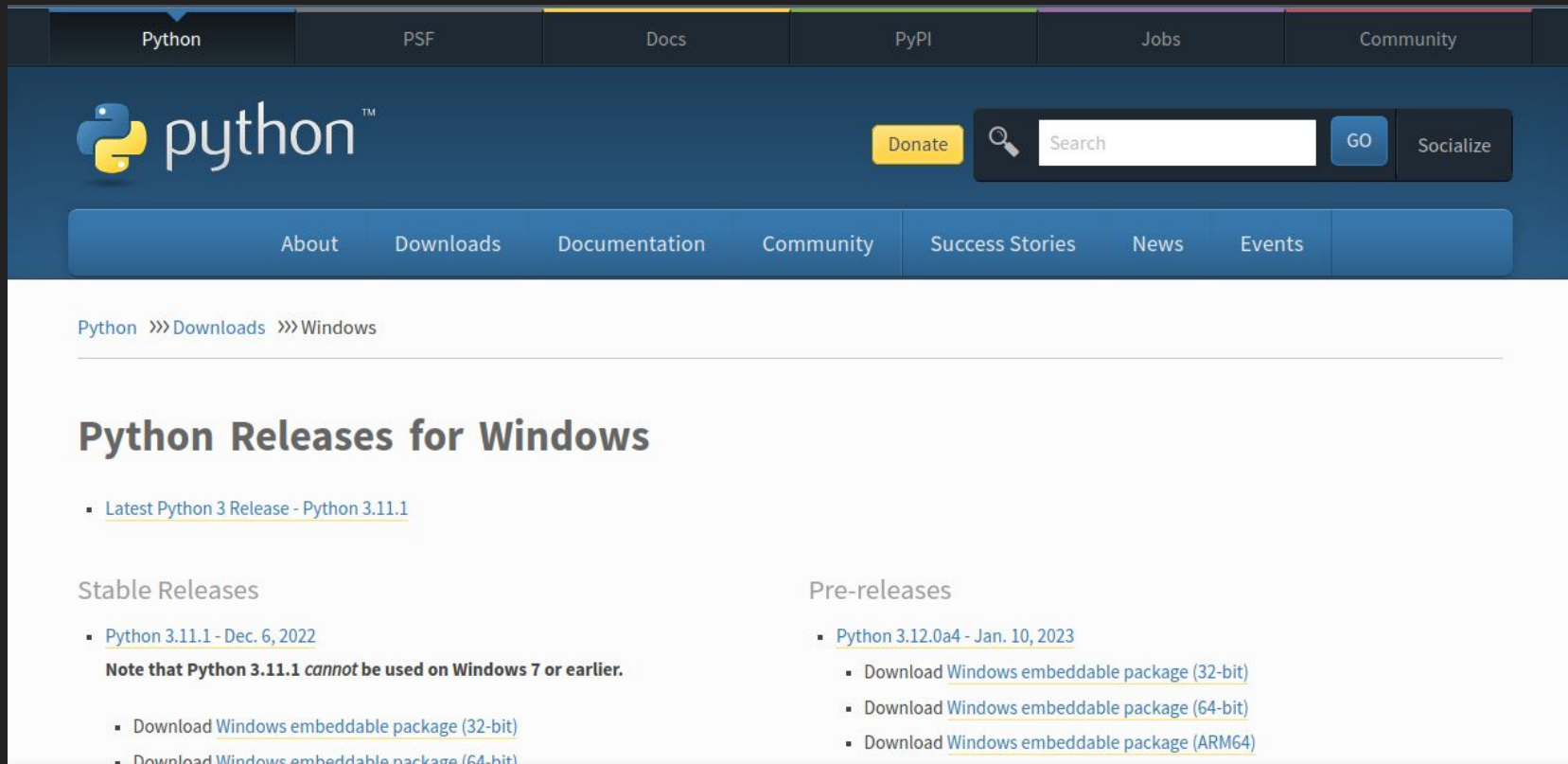
What is Colab?

Colab, or "Colaboratory", allows you to write and execute Python in your browser, with

- Zero configuration required
- Access to GPUs free of charge
- Easy sharing

Whether you're a **student**, a **data scientist** or an **AI researcher**, Colab can make your work easier. Watch [Introduction to Colab](#) to learn more, or just get started below!

Python Installation



The screenshot shows the Python.org website. The top navigation bar includes links for Python, PSF, Docs, PyPI, Jobs, and Community. Below this is a dark blue header with the Python logo, a 'Donate' button, a search bar with a 'GO' button, and a 'Socialize' button. A secondary navigation bar contains links for About, Downloads, Documentation, Community, Success Stories, News, and Events. The main content area is titled 'Python >>> Downloads >>> Windows' and features the heading 'Python Releases for Windows'. Under this heading, there is a link to the 'Latest Python 3 Release - Python 3.11.1'. The page is divided into two columns: 'Stable Releases' and 'Pre-releases'. The 'Stable Releases' column lists 'Python 3.11.1 - Dec. 6, 2022' with a note that it cannot be used on Windows 7 or earlier, and provides download links for 32-bit and 64-bit Windows embeddable packages. The 'Pre-releases' column lists 'Python 3.12.0a4 - Jan. 10, 2023' and provides download links for 32-bit, 64-bit, and ARM64 Windows embeddable packages.

Python >>> Downloads >>> Windows

Python Releases for Windows

- [Latest Python 3 Release - Python 3.11.1](#)

Stable Releases

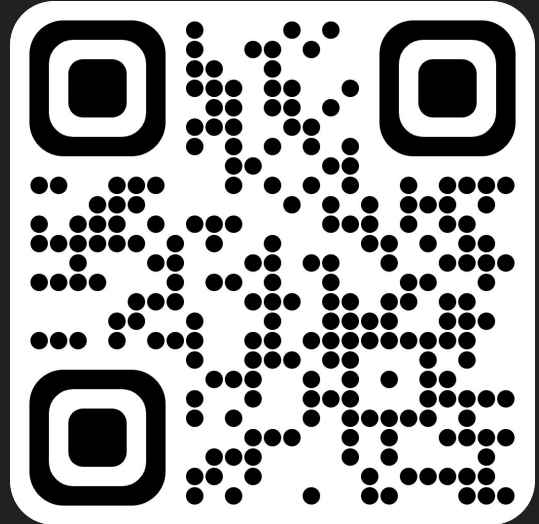
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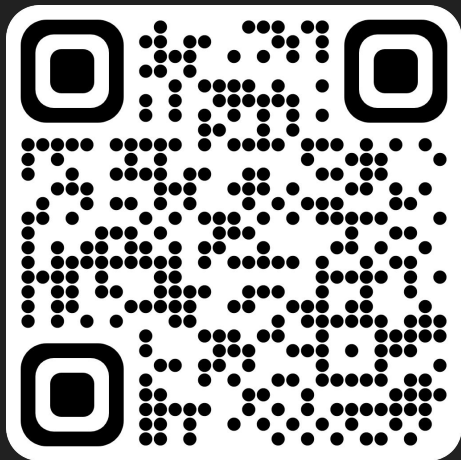
Pre-releases

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Get Python & vscode Installer

1. Connect to **pycourse** network
2. Go to ***http://192.168.0.200:5000/*** or scan the QR code
3. Click on the button
4. Install files :)





Let's Code :)

Please scan this QR code and complete the survey.