

Python Class Software Installation

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Install VSCode

VSCode is the python program editor we will use in our class.

- 下载 VSCode

Google search: vscode download Search result: Download Visual Studio Code - Mac, Linux, Windows

[VSCode Download Website](#)

Download Visual Studio Code - Mac, Linux, Windows

code.visualstudio.com/Download ▼

Download Visual Studio Code. Free and built on open source. Integrated Git, debugging and extensions. By **downloading** and using **Visual Studio Code**, you agree to the license terms and privacy statement .

Insiders Build

For early adopters, you can get the latest release of VS...

Updates

Contributions to vscode-references-view:
Babak K. Shandiz...

Code Editing. Redefined

Visual Studio Code is a code editor redefined and optimized...

FAQ

Visual Studio Code FAQ. Our docs contain a Common questions...

Extensions

One place for all extensions for Visual Studio, Azure DevOps...

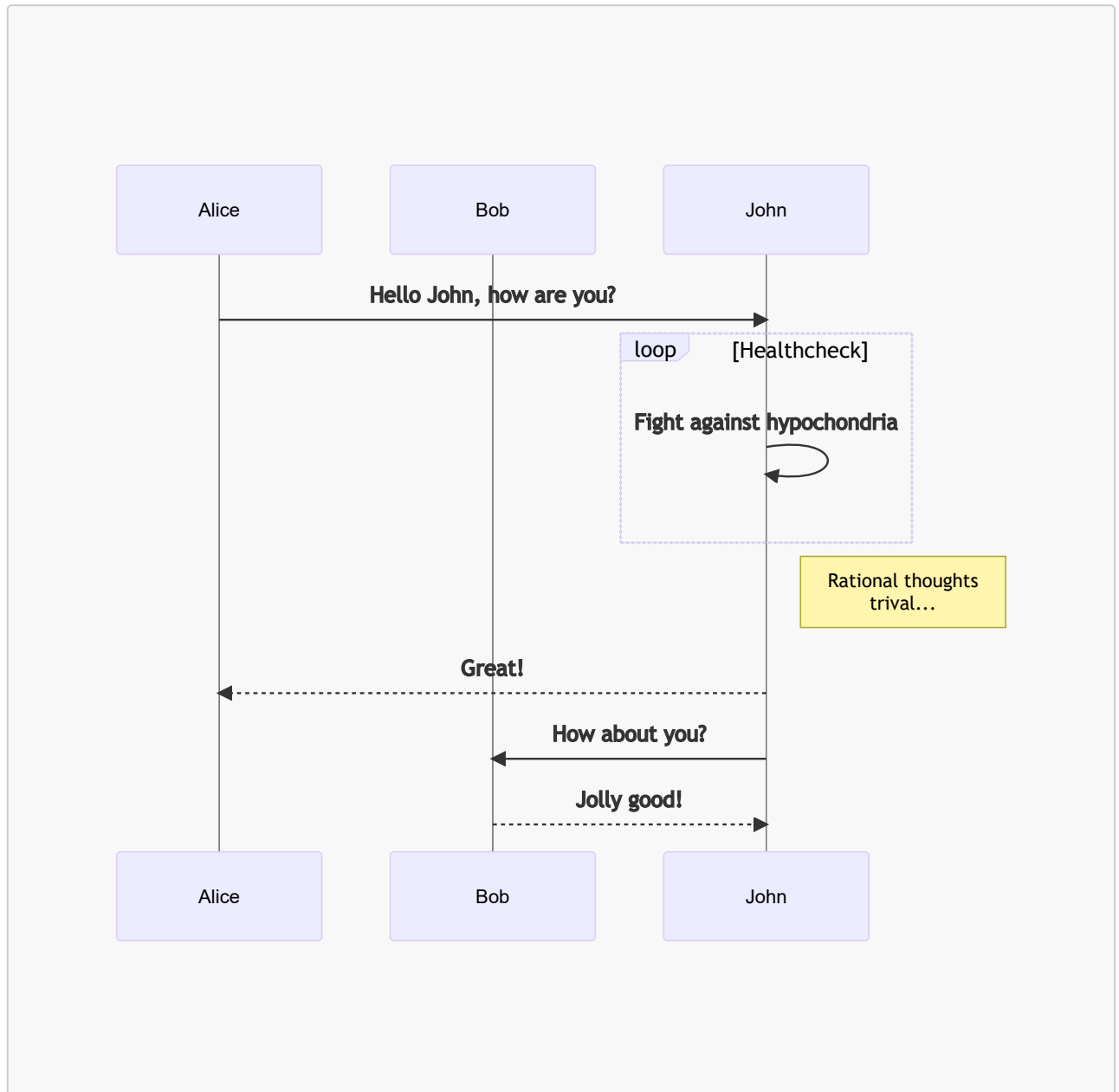
File: VSCode-darwin-stable.zip

- Extract zip file to ~/Downloads folder,
 - MacOS: move "Visual Studio Code" to Application folder
 - Windows 10:

- Check the success of the installation

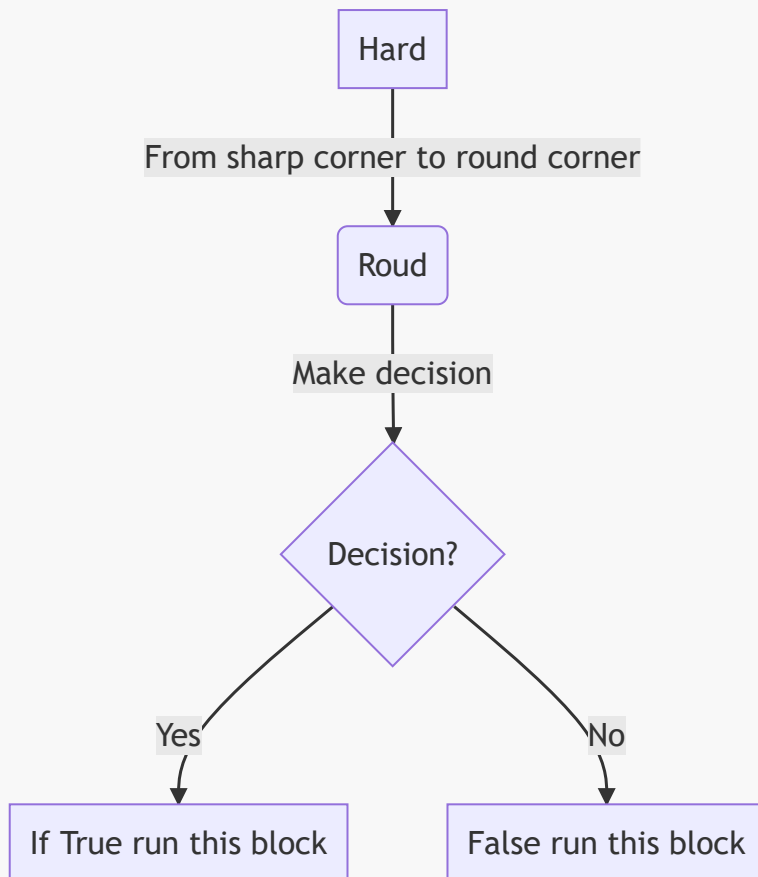
double click the desktop icon, start VSCode.

- Install extenstions
 - Python; for Running, Debugging, IntelliSense
 - Markdown All in One; Markdown preview, Table of contents, Math Equation
 - Markdown Preview from Matt Bierner; better preview

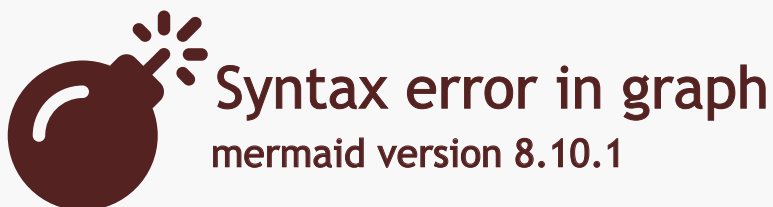


[Mermaid Diagram](#) [Mermaid Diagram Github](#)

- Flow



- Class



- * Markdown to PDF; convert markdown to PDF
- * Pylance; source code format
- * Unicode Latex; Insert unicode
Command Palette... > Unicode: Insert Math Symble > πr^2
 $7 \div 5 = 1.4, 3$
- * vscode-pdf; PDF preview
- * PlantUML; generate diagram from code
- * Jupyter; Python Notebook

- Setup Virture Environment

```
python -m venv env
./env/bin/activate.bat
```

```
python -m venv env
source env/bin/activate
```

- close terminal, open new terminal
- Command Palletete ... > Python Select Interpreter

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Install Python

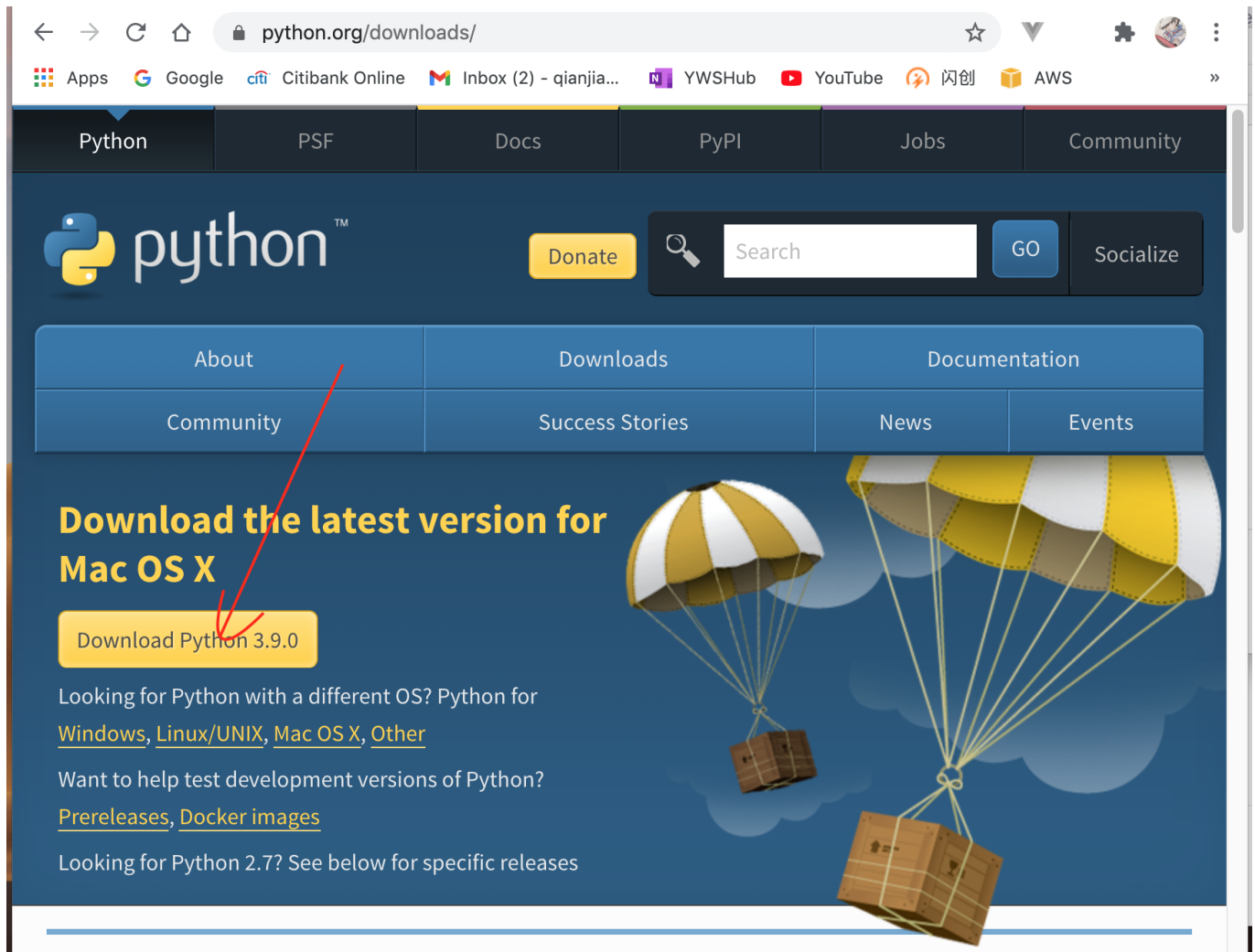
We need Python interpreter installed in order to execute Python program.

- 下载 Python

Google search: python download

Search result: Download Python | Python.org

[Python Download Website](#)



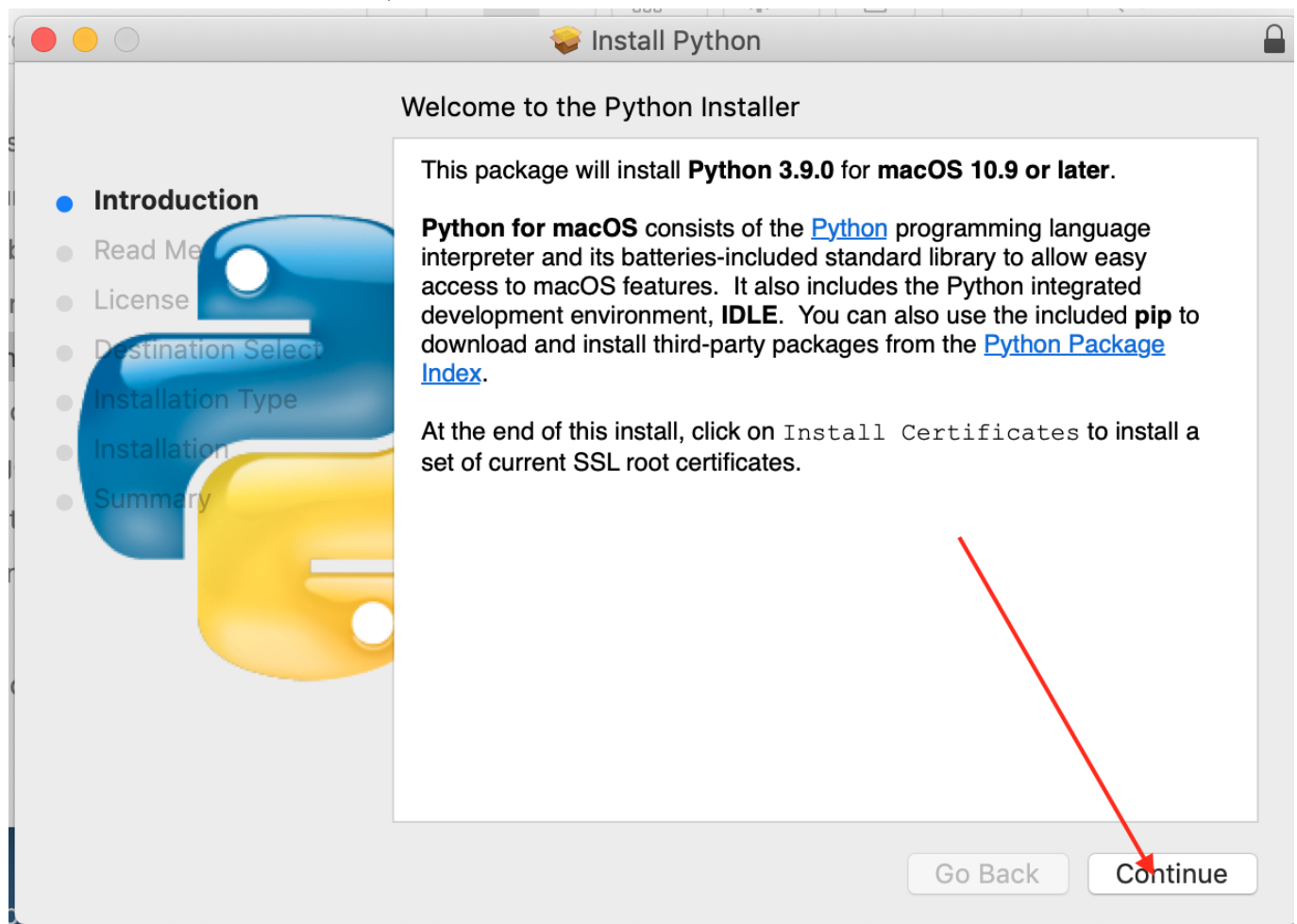
File:

python-3.9.0-macosx10.9.pkg (MacOS)

python-3.9.0-amd64.exe (Windows OS)

- Install python

double click the downloaded file,



- Check the installation

```
python --version
```

- Setup Python interpreter in VS Code

```
python -m venv env  
./env/bin/activate.bat
```

```
python3 -m venv env  
source env/bin/activate
```

Command Palette...>Python: Select Interpreter

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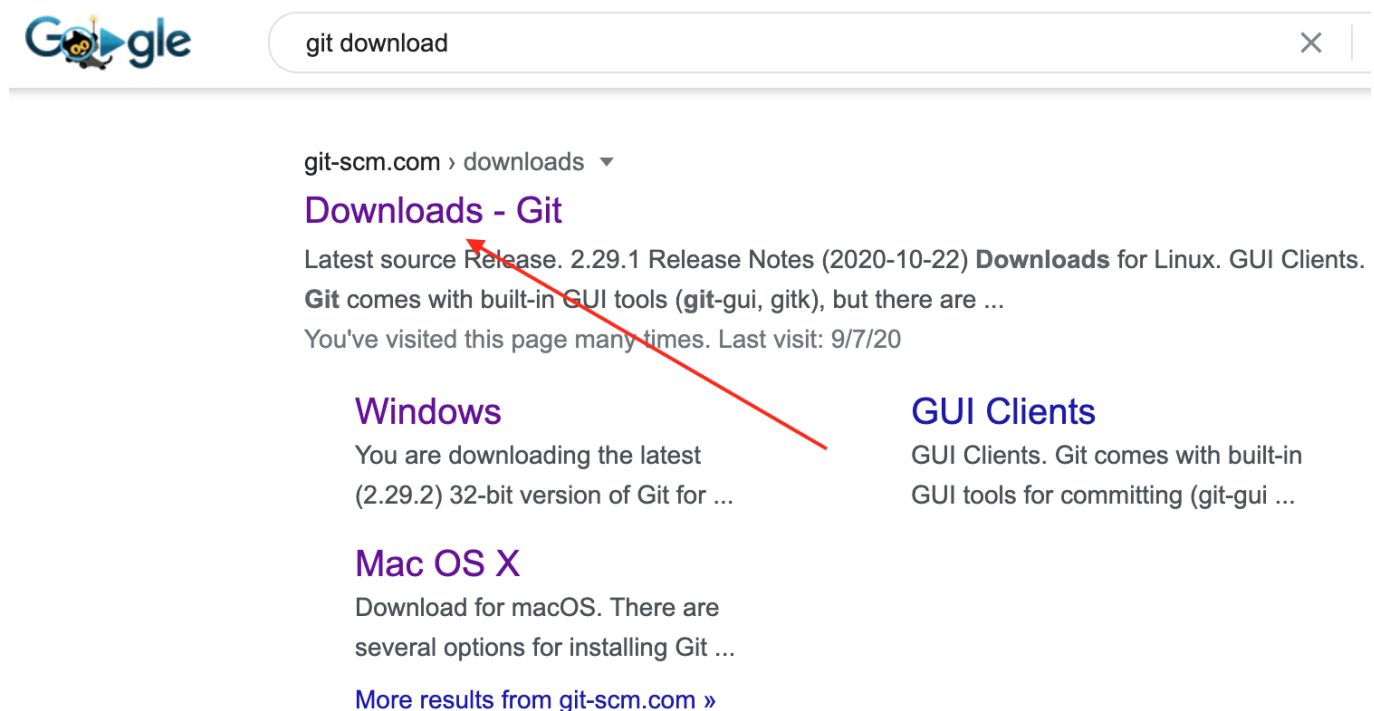
Install Git

Git is very powerful source version control software nowadays, we will use it for our python source code version control and homework repository.

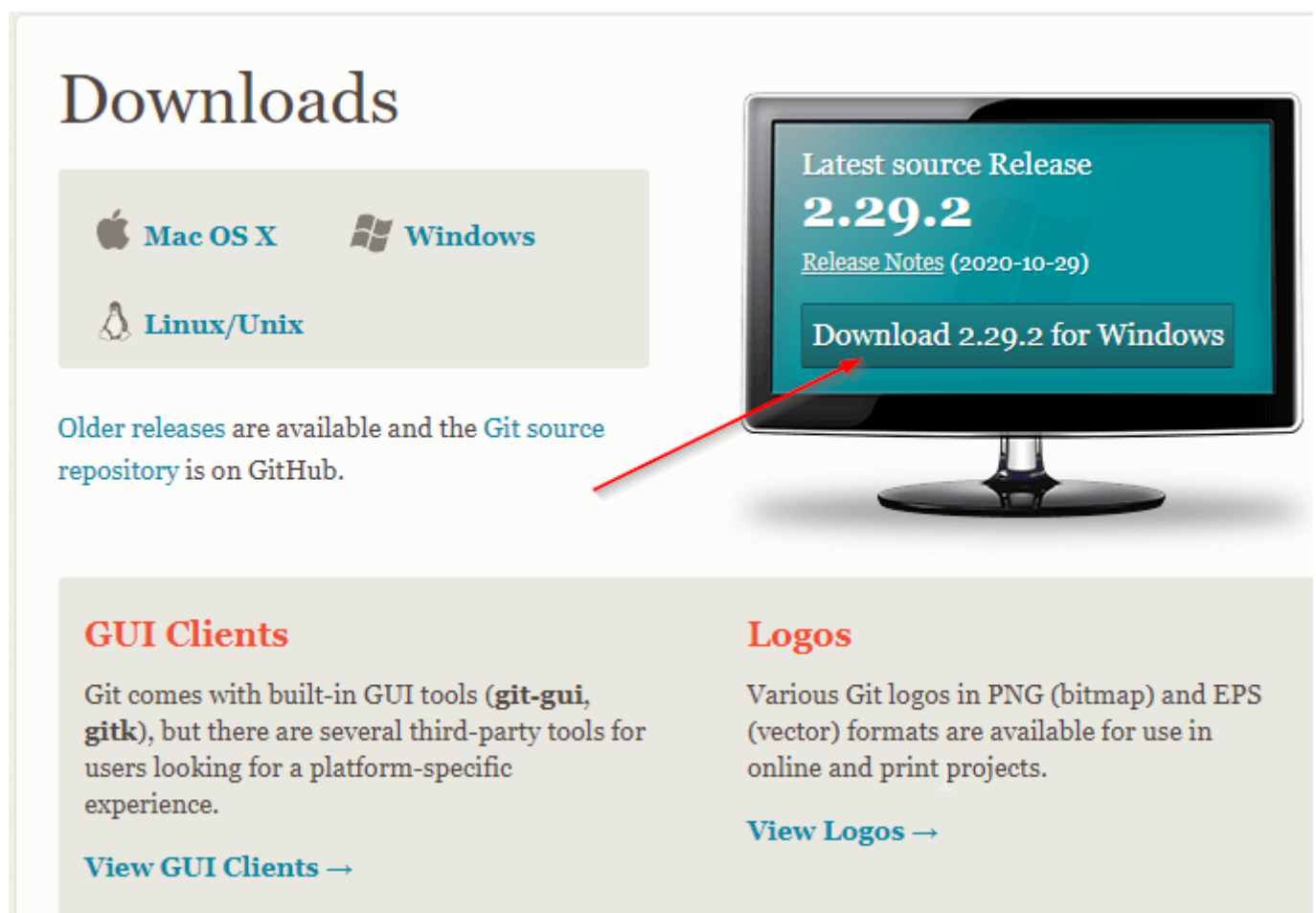
- Download Git

Google search: git downloads Search result: Git - Downloads

[Git Download website](#)



The screenshot shows a Google search result for 'git download'. The search bar at the top contains 'git download'. Below the search bar, the results are from 'git-scm.com > downloads'. The main heading is 'Downloads - Git'. Below this, it says 'Latest source Release. 2.29.1 Release Notes (2020-10-22) Downloads for Linux. GUI Clients. Git comes with built-in GUI tools (git-gui, gitk), but there are ...'. It also mentions 'You've visited this page many times. Last visit: 9/7/20'. There are three main sections: 'Windows' (You are downloading the latest (2.29.2) 32-bit version of Git for ...), 'Mac OS X' (Download for macOS. There are several options for installing Git ...), and 'GUI Clients' (GUI Clients. Git comes with built-in GUI tools for committing (git-gui ...)). A red arrow points from the 'Downloads - Git' heading to the 'Download 2.29.2 for Windows' button in the monitor image below.



The screenshot shows the 'Downloads' page of the Git website. The main heading is 'Downloads'. Below it, there are three icons: 'Mac OS X', 'Windows', and 'Linux/Unix'. To the right, there is a monitor displaying the 'Latest source Release 2.29.2' with a link to 'Release Notes (2020-10-29)' and a button 'Download 2.29.2 for Windows'. A red arrow points from the 'Download 2.29.2 for Windows' button in the monitor to the 'Download 2.29.2 for Windows' button in the screenshot above. Below the icons, it says 'Older releases are available and the Git source repository is on GitHub.' At the bottom, there are two sections: 'GUI Clients' (Git comes with built-in GUI tools (git-gui, gitk), but there are several third-party tools for users looking for a platform-specific experience. View GUI Clients →) and 'Logos' (Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects. View Logos →).

File: Git-2.29.2-64-bit.exe

- install Git

double click the executable file.

- Use brew to install git on MacOS

```
brew install git
ls -la /usr/local
sudo chown -R wangqianjiang:wheel /usr/local
brew link git
```

Some version of MacOS, you just check the git version, it will install git when there is no git installed.

- Check the installation

```
git --version
```

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PIP install missing module

```
c:/Users/12818/workspace/django/hello.py
Traceback (most recent call last):
  File "c:\Users\12818\workspace\django\hello.py", line 1, in <module>
    import pandas as pd
ModuleNotFoundError: No module named 'pandas'
```

Whenever you see ModuleNotFoundError: do the following

```
pip install pandas
```

check all modules that pip installed

```
pip freeze
```

Image utility (ImageMagick)

- Installation file: ImageMagick-x86_64-pc-windows.exe
- installed at C:\Program Files (x86)\ImageMagick-7.0.11-Q8


```
magick
```

- Conver images from png to gif, list of png file to one gif file

```
magick F_*.png motion.gif  
magick pencil.png favicon.ico
```