

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...

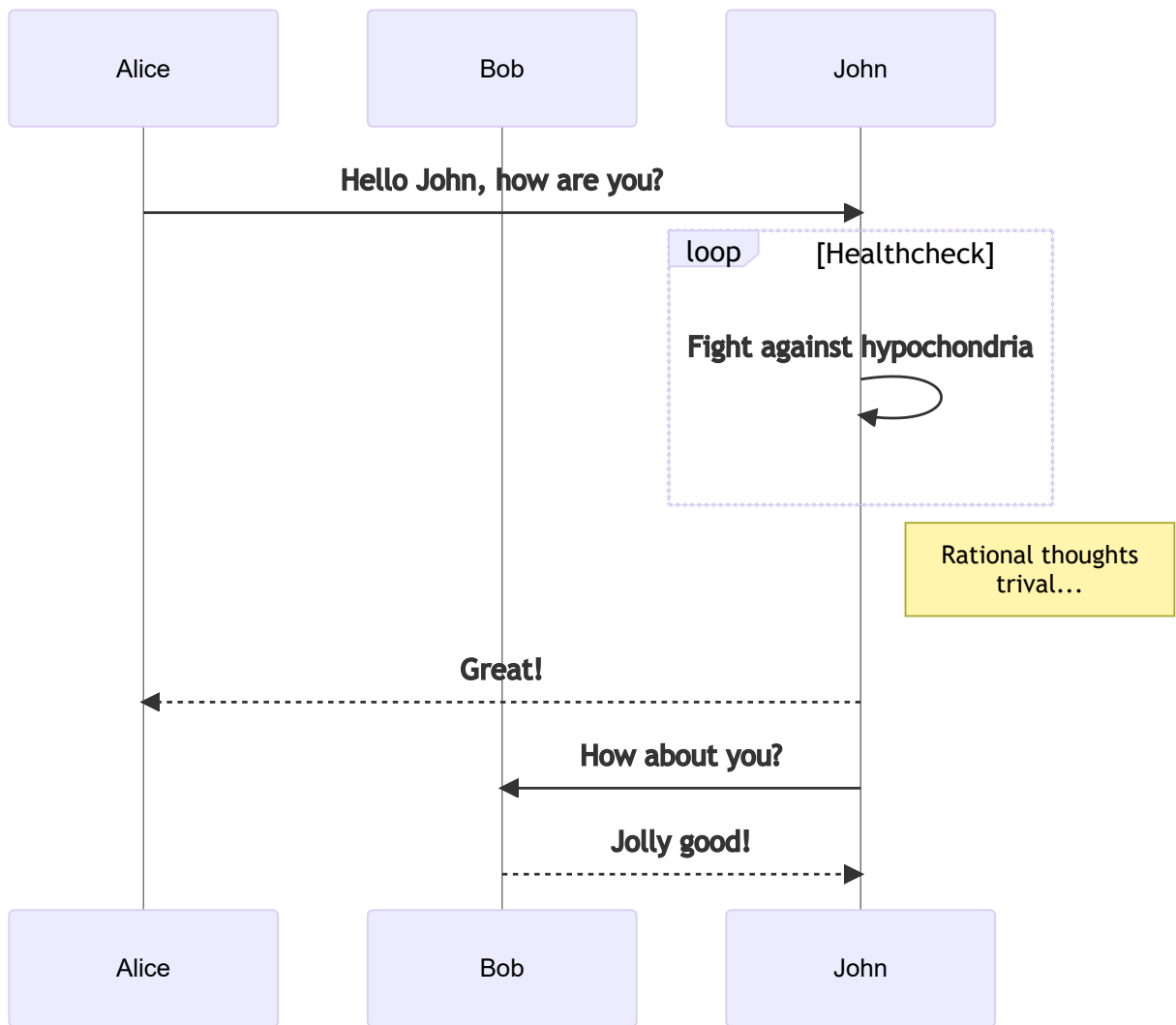
File: VSCode-darwin-stable.zip

- 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 extentions

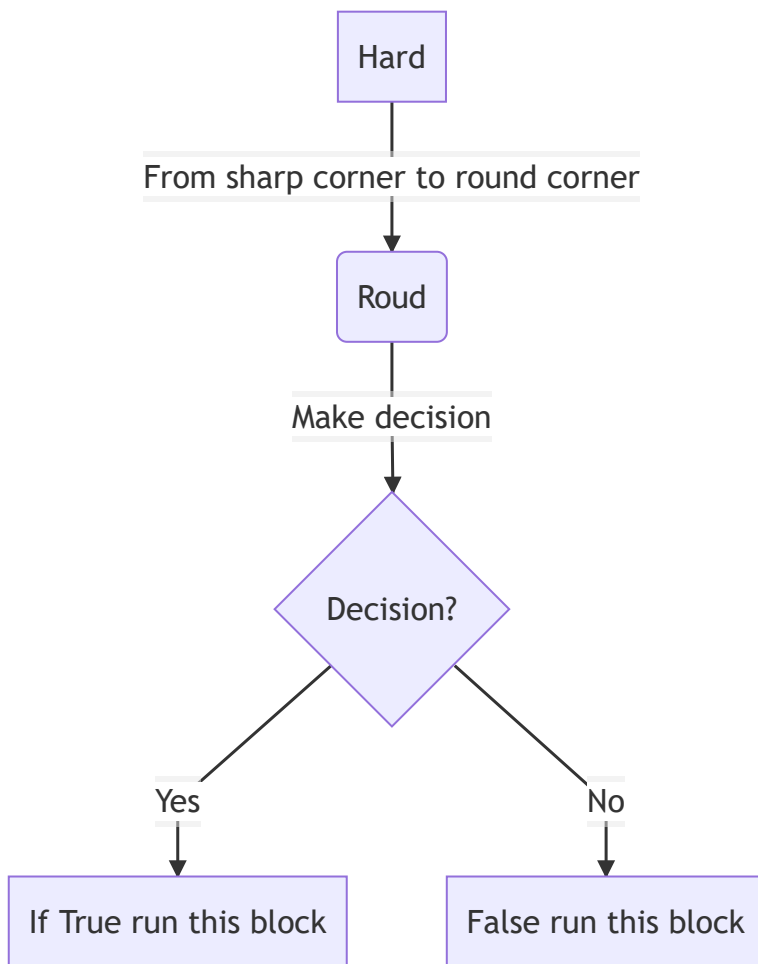
- Python; for Running, Debugging, IntelliSense
- Markdown All in One; Markdown preview, Table of contents, Math Equation
- Markdown Preview from Matt Bierner; better preview



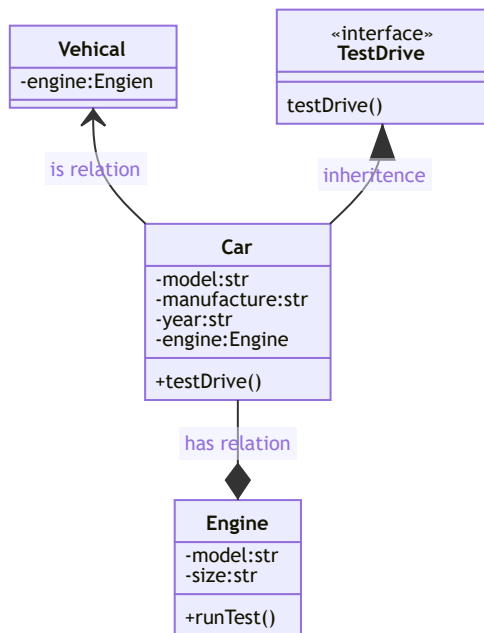
[Mermaid Diagram](#)

[Mermaid Diagram Github](#)

- Flow



o Class



Type	Description
< --	Inheritance

Type	Description
*--	Composition
o--	Aggregation
-->	Association
--	Link

[class diagram document](#)

- Markdown to PDF; convert markdown to PDF
- Pylance; source code format
- Unicode Latex; Insert unicode
Command Palette... > Unicode: Insert Math Symble > area = πr^2 ,
 $7 \div 5 = 1.4$, $3 + 5 = 8$, $4 \times 6 = 24$, $7 - 3 = 4$
- vscode-pdf; PDF preview
- Jupyter; Python Notebook

Install Python

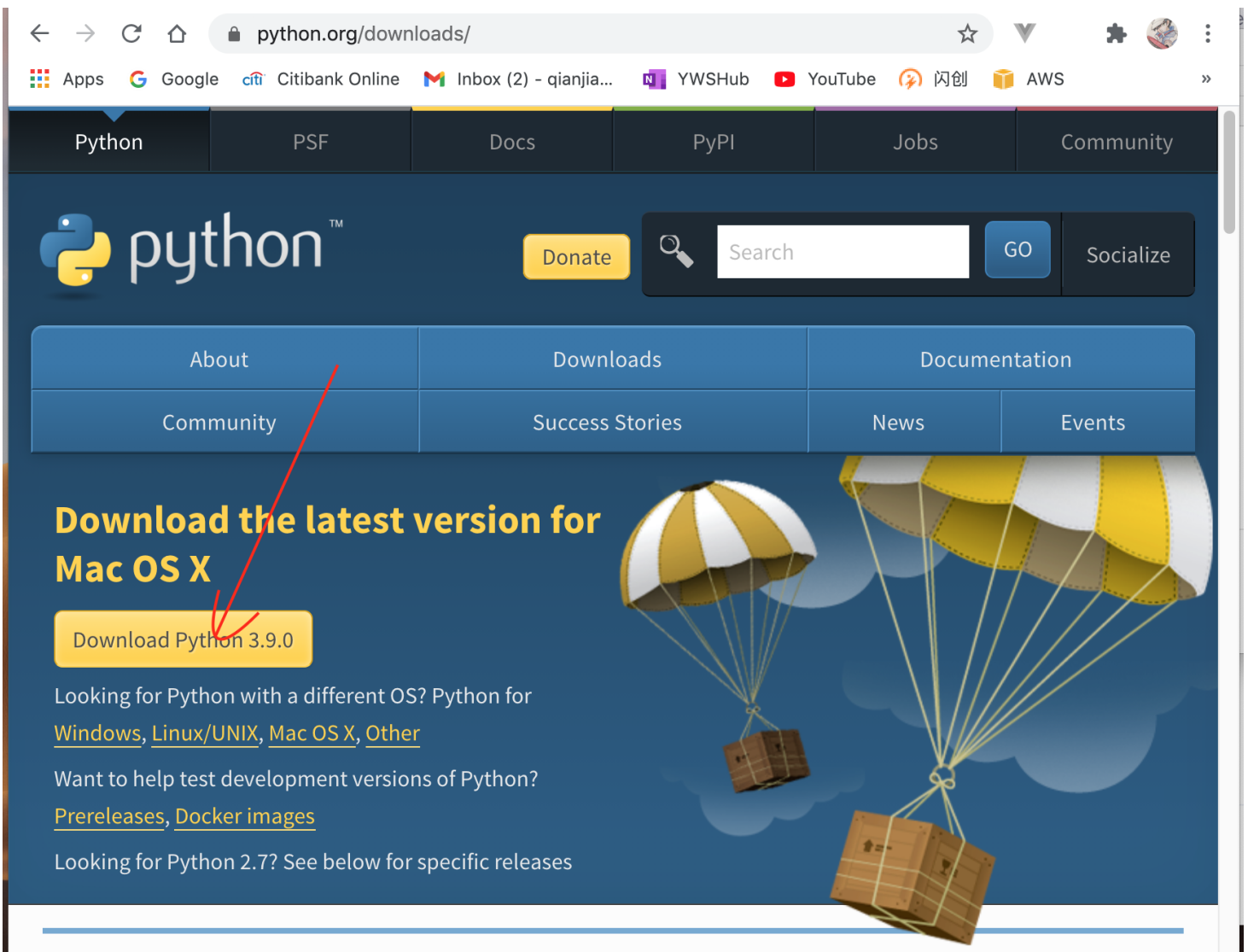
We need Python interpetor installed in order to execute Python program.

- 下载 Python

Google search: python download

Search result: Download Python | [Python.org](#)

[Python Download Website](#)



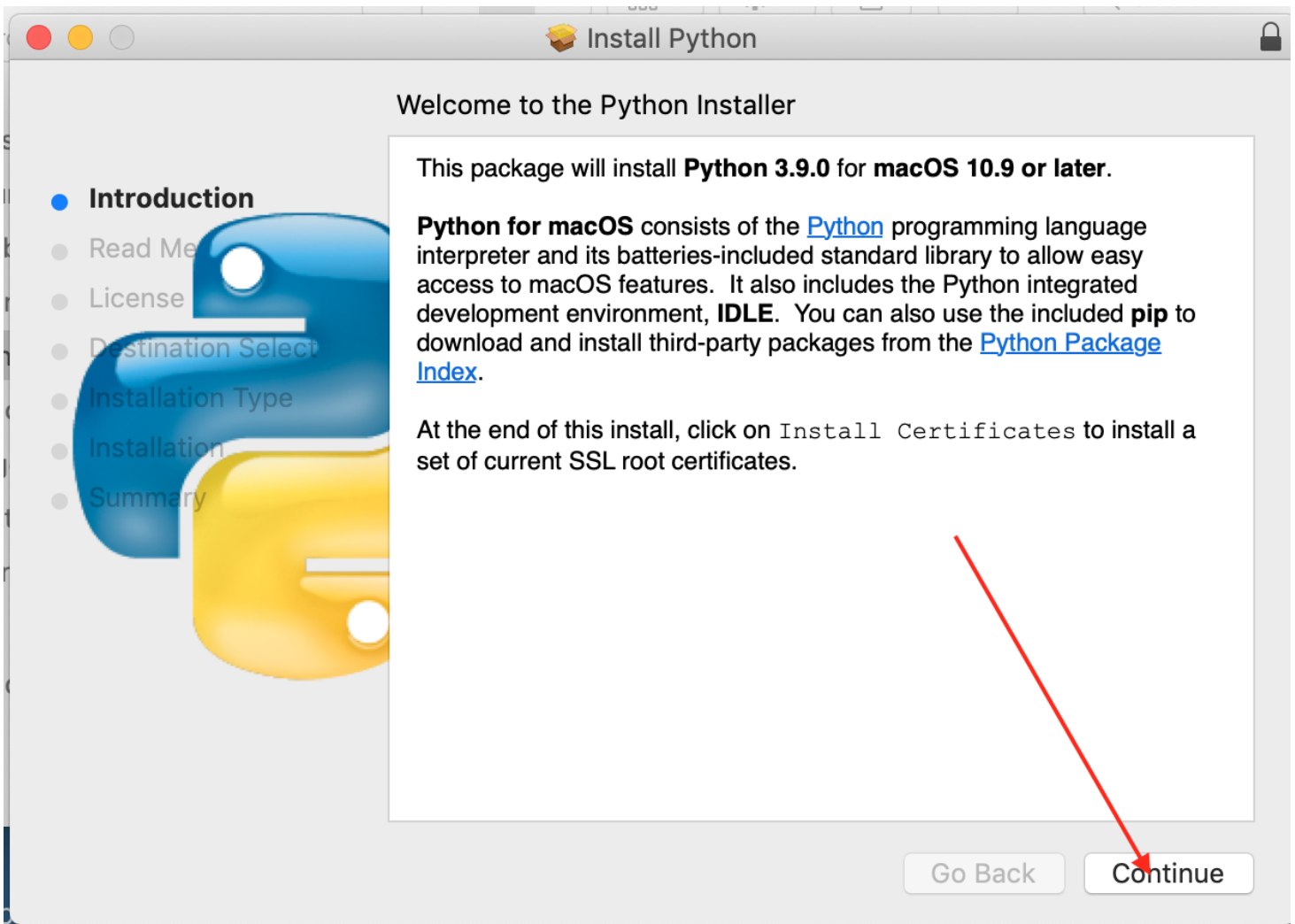
File:

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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Setup Virture Environment

For windows OS:

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

For MacOS:

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

- close terminal, open new terminal
- Command Pallette ... > 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](#)

git-scm.com > downloads ▼

Downloads - Git

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 ...

You've visited this page many times. Last visit: 9/7/20

Windows

You are downloading the latest (2.29.2) 32-bit version of Git for ...

GUI Clients

GUI Clients. Git comes with built-in GUI tools for committing (**git-gui** ...

Mac OS X

Download for macOS. There are several options for installing Git ...

[More results from git-scm.com »](#)

Downloads



Mac OS X

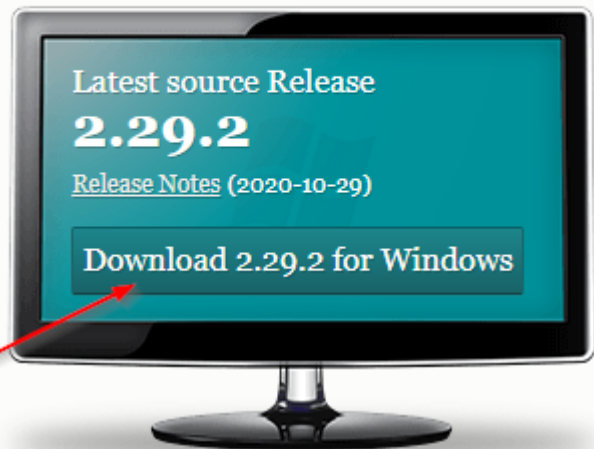


Windows



Linux/Unix

Older releases are available and the [Git source repository](#) is on GitHub.



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 →](#)

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)

ImageMagick utility application can convert from-to different image formats. Very useful for convert serise png file to gif file to create animation image.

- [Download Website](#)
- Installation file: ImageMagick-x86_64-pc-windows.exe
- installed at C:\Program Files (x86)\ImageMagick-7.0.11-Q8
- Check for success installation

```
magick -version
```

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

```
magick F_*.png motion.gif
```

```
magick pencil.png favicon.ico
```