

# Beginners Guide To Python

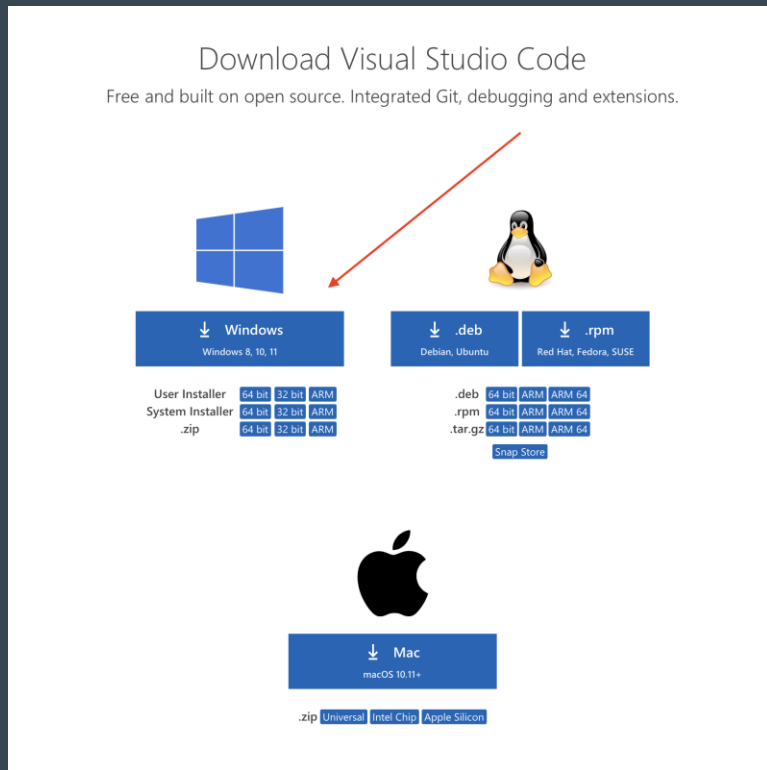
...

# Installing VSCode

# Go to <https://code.visualstudio.com/download>

Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



The image shows the Visual Studio Code download page. It features a Windows logo on the left and a Linux penguin logo on the right. A red arrow points from the Linux logo to the Linux download options. Below the logos are buttons for 'Windows' and 'Mac'. Under 'Windows' are links for 'User Installer', 'System Installer', and '.zip', each with sub-links for '64 bit', '82 bit', and 'ARM'. Under 'Mac' is a link for '.zip' with sub-links for 'Universal', 'Intel Chip', and 'Apple Silicon'. A large grey arrow points from the download page to the installation window on the right.

**Windows**  
Windows 8, 10, 11

↓ Windows  
Windows 8, 10, 11

User Installer 64 bit 82 bit ARM  
System Installer 64 bit 82 bit ARM  
.zip 64 bit 82 bit ARM

**Linux**  
Debian, Ubuntu Red Hat, Fedora, SUSE

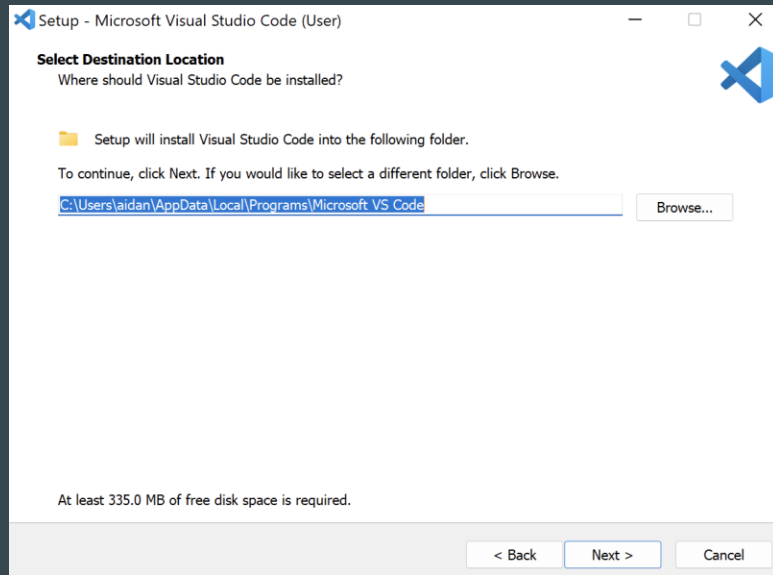
↓ .deb ↓ .rpm  
Debian, Ubuntu Red Hat, Fedora, SUSE

.deb 64 bit ARM ARM 64  
.rpm 64 bit ARM ARM 64  
.tar.gz 64 bit ARM ARM 64  
Snap Store

**Mac**  
macOS 10.11+

↓ Mac  
macOS 10.11+

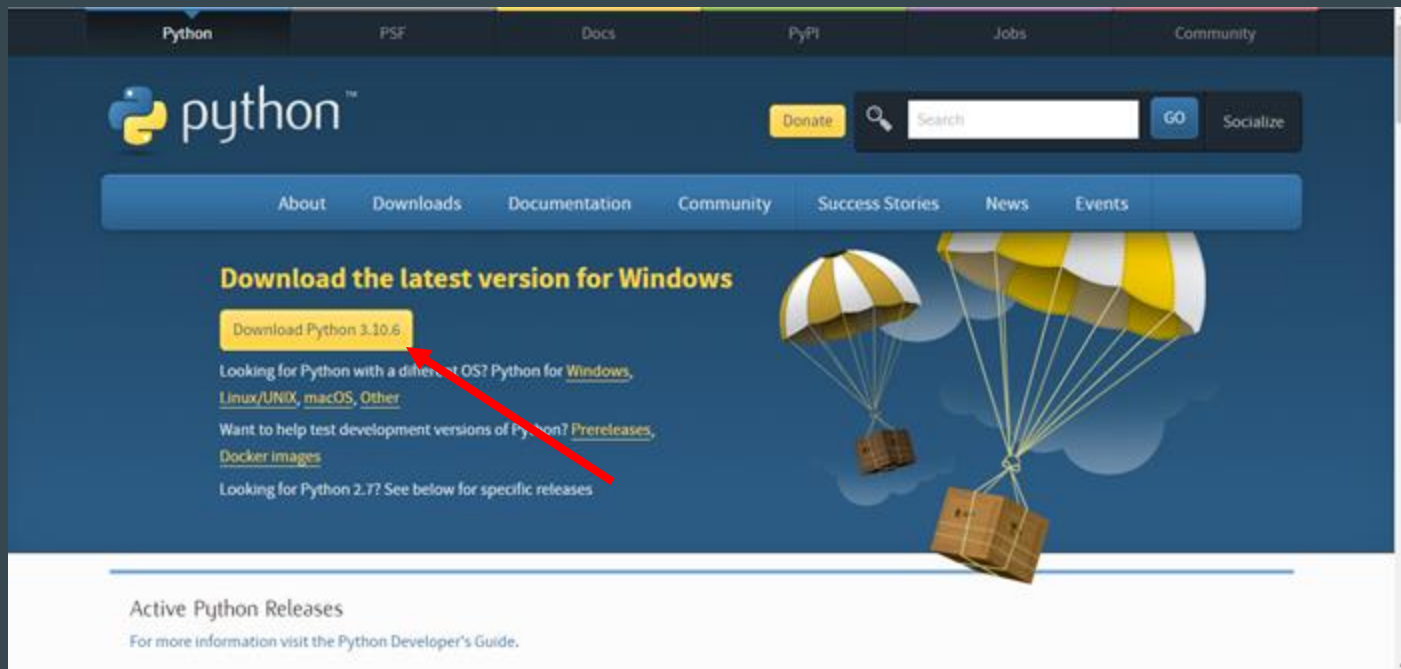
.zip Universal Intel Chip Apple Silicon



# Installing Python

# Downloading Python

[python.org/downloads/](https://python.org/downloads/)



The screenshot shows the Python.org website with a dark blue header and a lighter blue main content area. The header includes navigation links for Python, PSF, Docs, PyPI, Jobs, and Community. Below the header is a search bar with a 'Donate' button and a 'Socialize' button. The main content area features a large banner with the text 'Download the latest version for Windows' and a yellow button labeled 'Download Python 3.10.6'. A red arrow points to this button. Below the button, there are links for 'Python for Windows', 'Linux/UNIX, macOS, Other', 'Prereleases', and 'Docker images'. The banner also includes an illustration of two parachutes with cargo boxes. At the bottom, there is a section titled 'Active Python Releases' with a link to the 'Python Developer's Guide'.

Python

PSF

Docs

PyPI

Jobs

Community

python™

Donate

Search

GO

Socialize

About

Downloads

Documentation

Community

Success Stories

News

Events

**Download the latest version for Windows**

Download Python 3.10.6

Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [macOS](#), [Other](#)

Want to help test development versions of Python? [Prereleases](#), [Docker images](#)

Looking for Python 2.7? See below for specific releases

Active Python Releases

For more information visit the [Python Developer's Guide](#).

# Downloading Python

The screenshot shows the Python.org website with a dark blue header. The main navigation bar includes links for Python, PSF, Docs, PyPI, and Jobs. Below this is a secondary navigation bar with links for About, Downloads, Documentation, Community, Success Stories, and News. The main content area features a large yellow and white striped parachute with a crate hanging from it, and a smaller yellow parachute with a crate. The text 'Download the latest version for Windows' is prominently displayed. Below this, there is a button labeled 'Download Python 3.10.6'. The text 'Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [macOS](#), [Other](#)' is visible. Below that, it says 'Want to help test development versions of Python? [Prereleases](#), [Docker images](#)'. At the bottom, it says 'Looking for Python 2.7? See below for specific releases'. A red arrow points from the 'Downloads' link in the navigation bar to the 'python-3.10.6-amd64.exe' file in the 'Active Python Releases' section.

Python

PSF

Docs

PyPI

Jobs

python™

Donate

Search

About Downloads Documentation Community Success Stories News

**Download the latest version for Windows**

Download Python 3.10.6

Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [macOS](#), [Other](#)

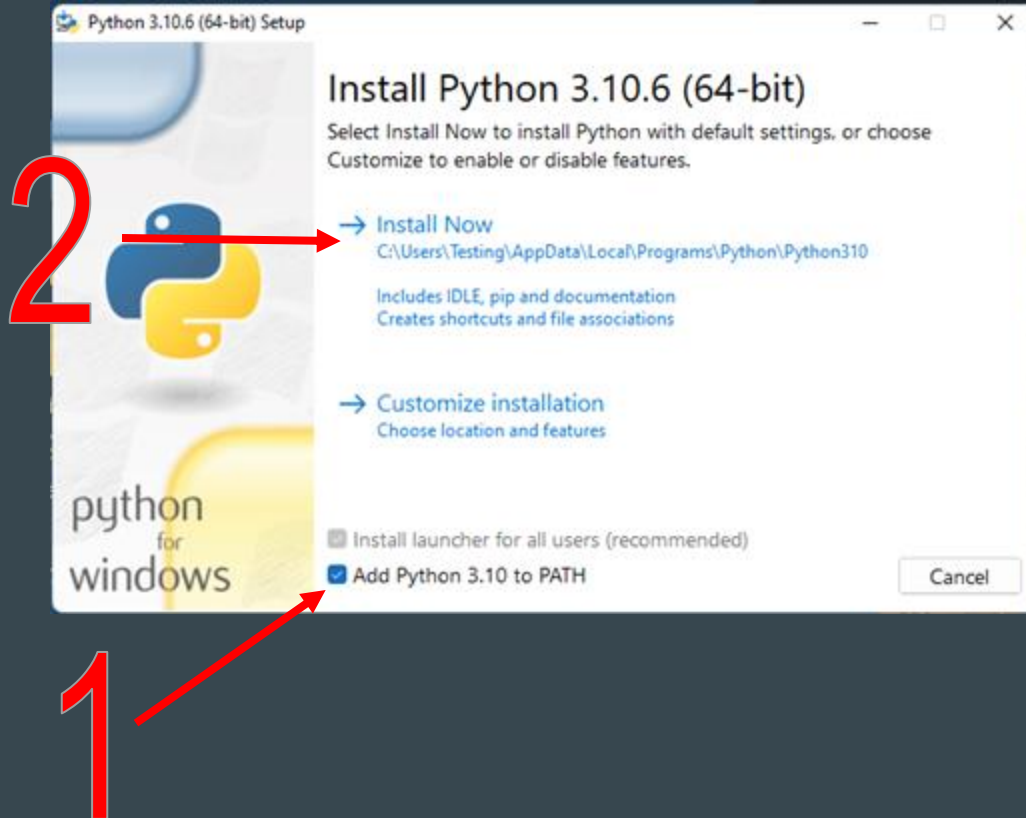
Want to help test development versions of Python? [Prereleases](#), [Docker images](#)

Looking for Python 2.7? See below for specific releases

Active Python Releases

python-3.10.6-amd64.exe

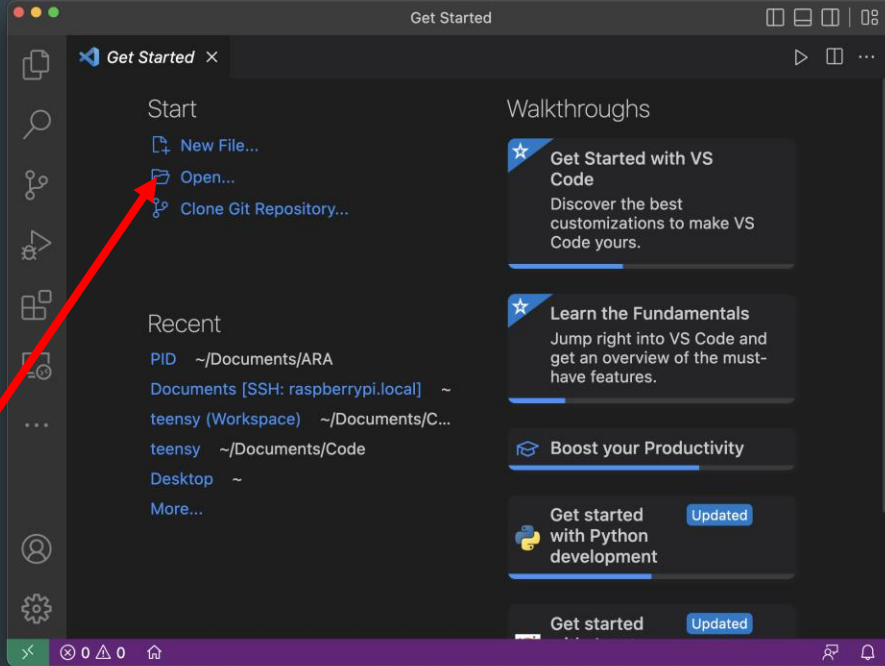
# Downloading Python



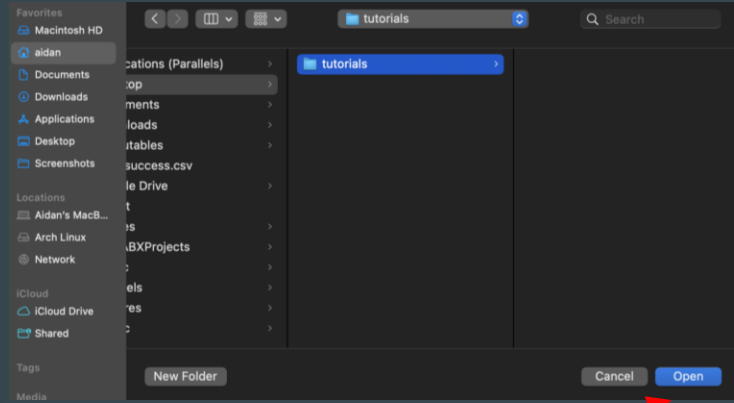
# Setting up “Hello World”



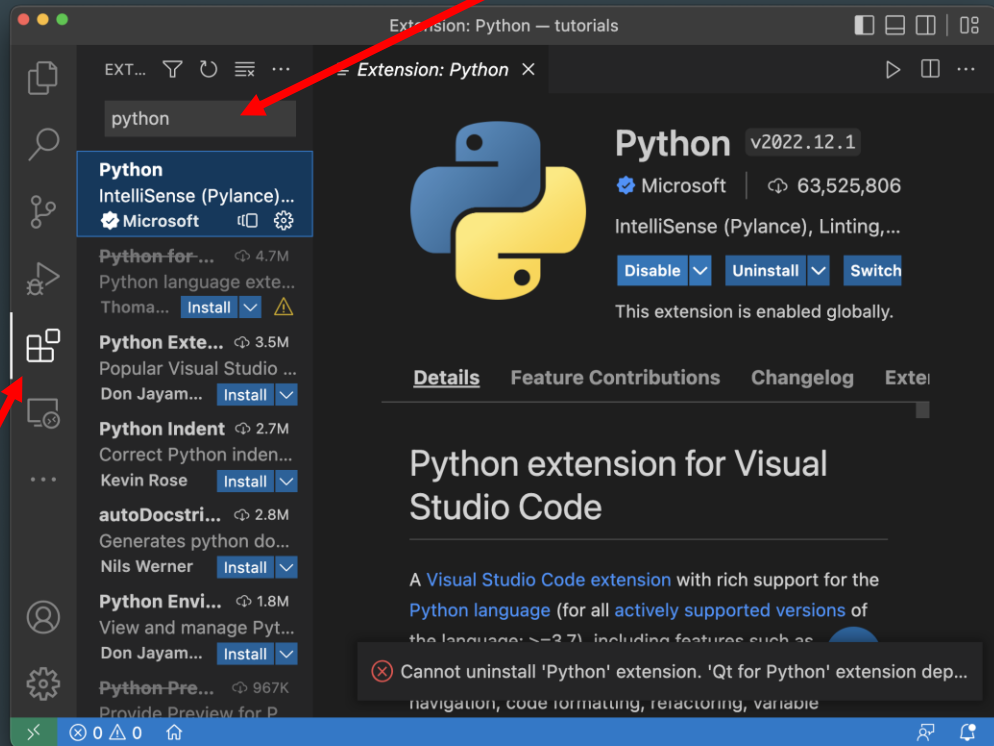
# Create a new project



# Open a folder on your computer where you wish to store all your programs



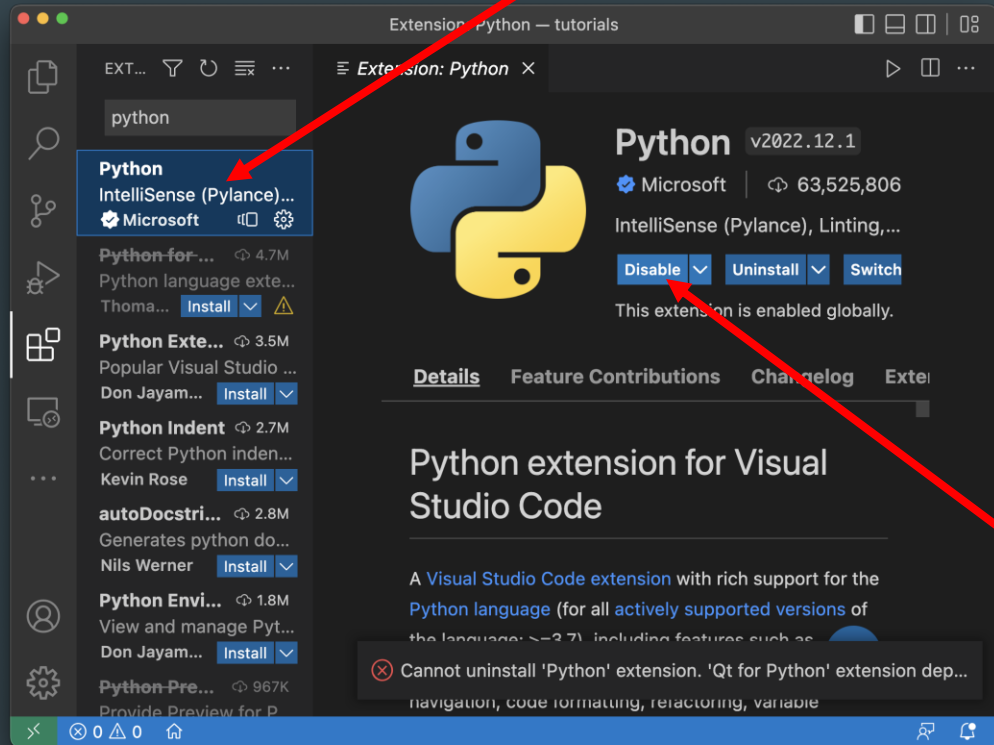
# Python Extension



1. Select the “Extensions” tab

2. Search for the “Python” extension

# Python Extension

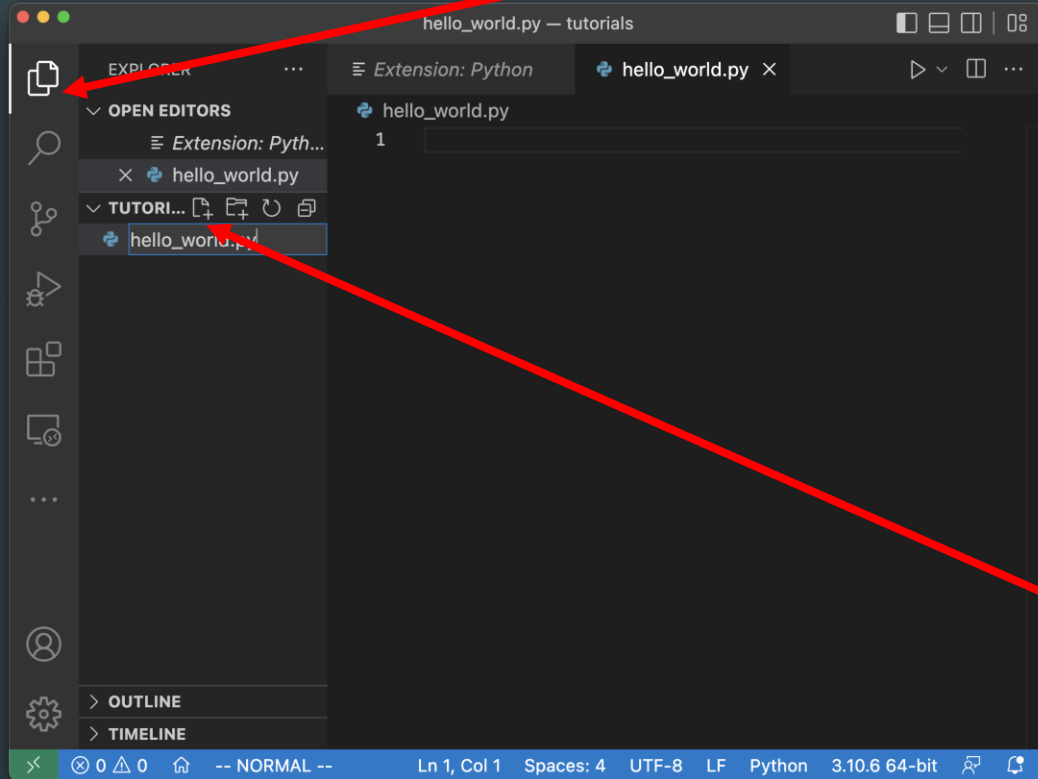


3. Select the first result

4. Click the “Install” button

# Create a New File

5



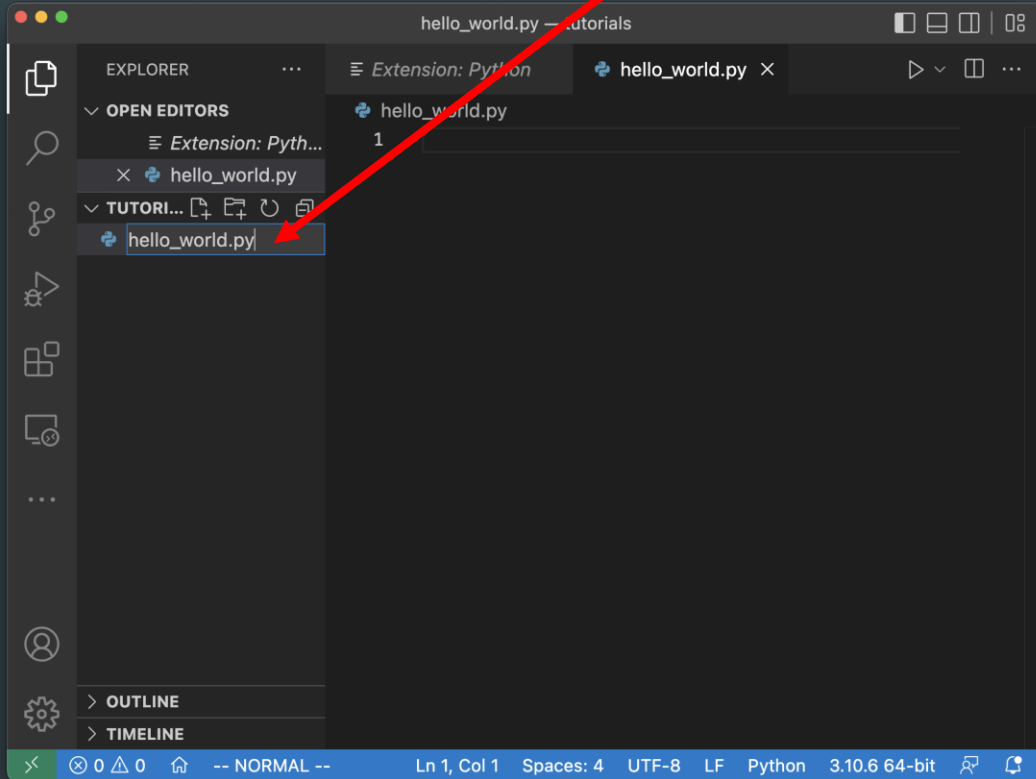
5. Go back to the “Files” tab

6. Add a new file to your project

6

# Create a New File

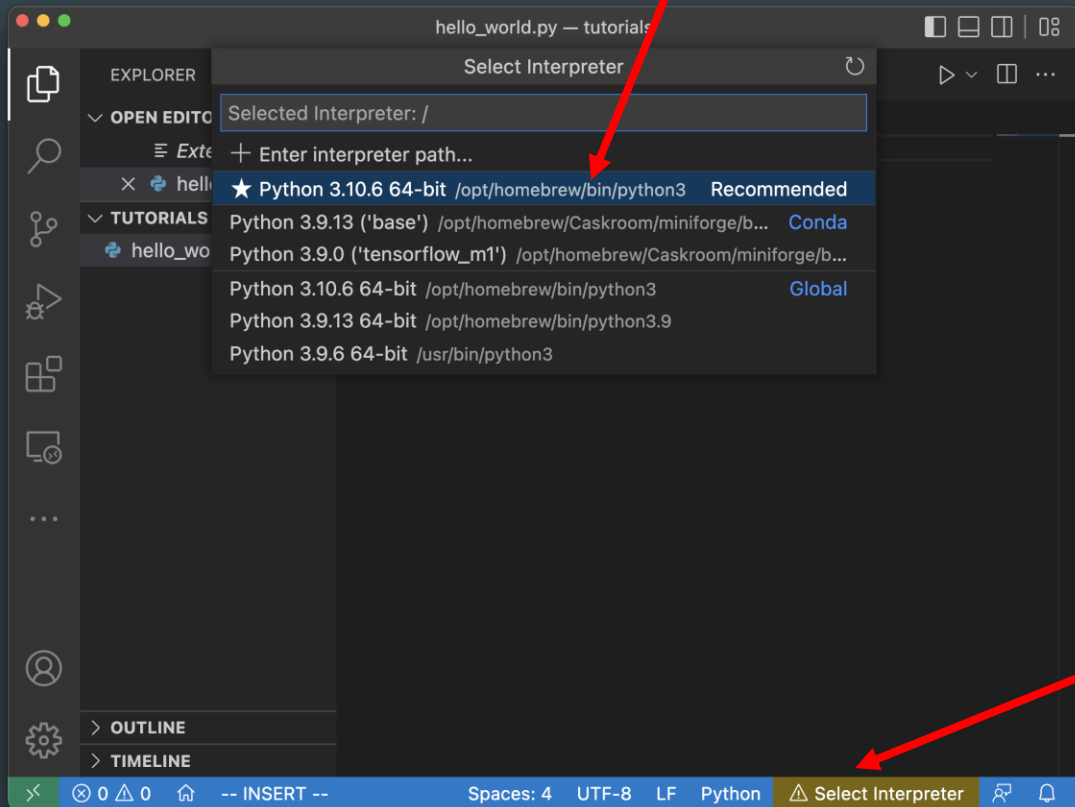
7



7. Name your file with a “.py” extension

# Select an Interpreter

9



8. Click the “Select Interpreter” button

9. Select the interpreter you installed earlier

8

# Run "Hello World!"

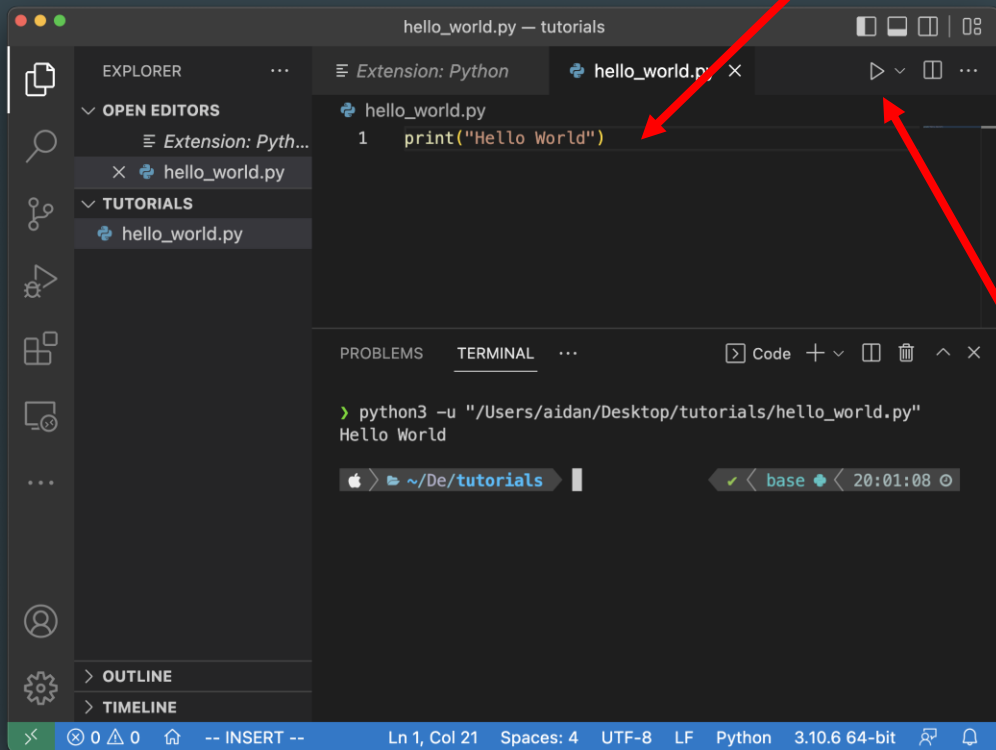
10

10. Type this statement:

```
print("Hello World!")
```

11. Click the "run" button

11



**NOW LET'S GET TO  
PROGRAMMING**



## Exercise 1 – Evaluating a Function:

- Use a python program to evaluate the following equation for  $f(4)$ :

$$f(x) = \frac{12x^4 - 4x^2 + 9}{x^5 - 31}$$

## Exercise 2 – Even/Odd numbers:

Make a program which lets a user input a number, and tells them if the number is even or odd

## Exercise 3 – Factorials:

Make a program which lets a user input a number  $n$  and evaluates:

$$n! = 1 * 2 * \cdots * (n - 1) * n$$

## Exercise 4 – Least Common Multiples:

Find the first number which is divisible by 1, 2, 3, 4, 5, 6, and 7 – in other words, the least common multiple of those numbers

THANKS SO MUCH



Jupyter Notebook