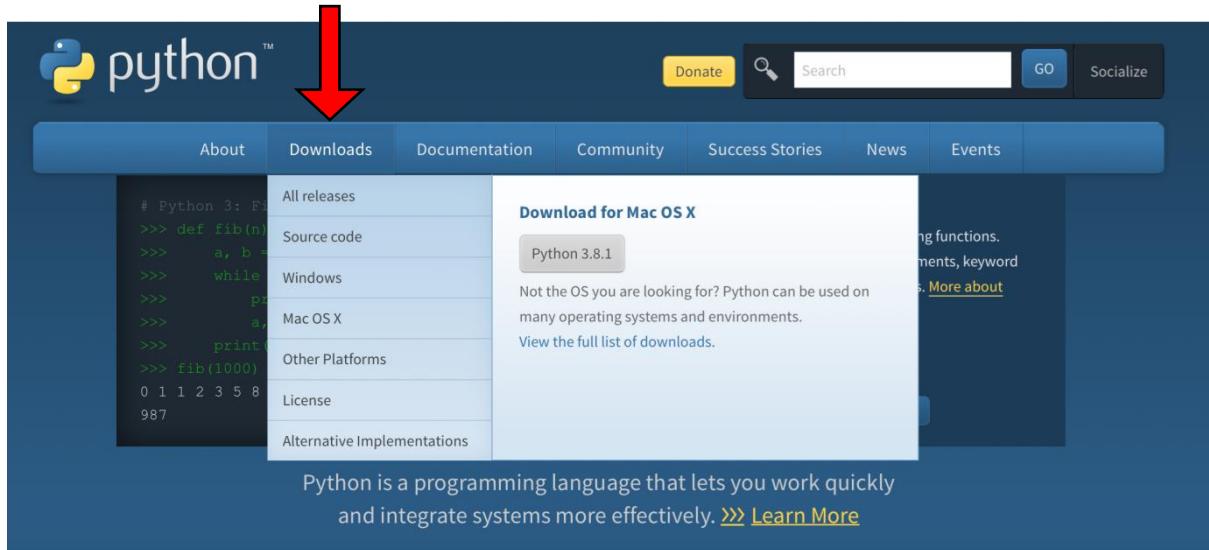


APS106: Getting Started with Python and Wing101 Version 8 for macOS

Step 1: Install Python

1. Open your web browser and go to <http://www.python.org/>
2. Click “Downloads”



3. From the Downloads page, scroll down to “Looking for a specific release?”
4. Scroll through the release versions and click “Download” for Python version 3.8.10
 - a. This is the last full release of 3.8, which is the same Python version run by the auto-marker (MarkUs) used to mark parts of your APS106 labs

Looking for a specific release?			
Python releases by version number:			
Release version	Release date	Click for more	
Python 3.7.11	June 28, 2021	Download	Release Notes
Python 3.6.14	June 28, 2021	Download	Release Notes
Python 3.9.5	May 3, 2021	Download	Release Notes
Python 3.8.10	May 3, 2021	Download	Release Notes
Python 3.9.4	April 4, 2021	Download	Release Notes
Python 3.8.9	April 2, 2021	Download	Release Notes
Python 3.9.2	Feb. 19, 2021	Download	Release Notes
Python 3.8.8	Feb. 19, 2021	Download	Release Notes

5. Once on the Python 3.8.10 download page:
 - a. Scroll down and click “macOS 64-bit Intel installer” and save/download the file
 - b. Windows users will need to pick the appropriate 32-bit or 64-bit installer based on their machine

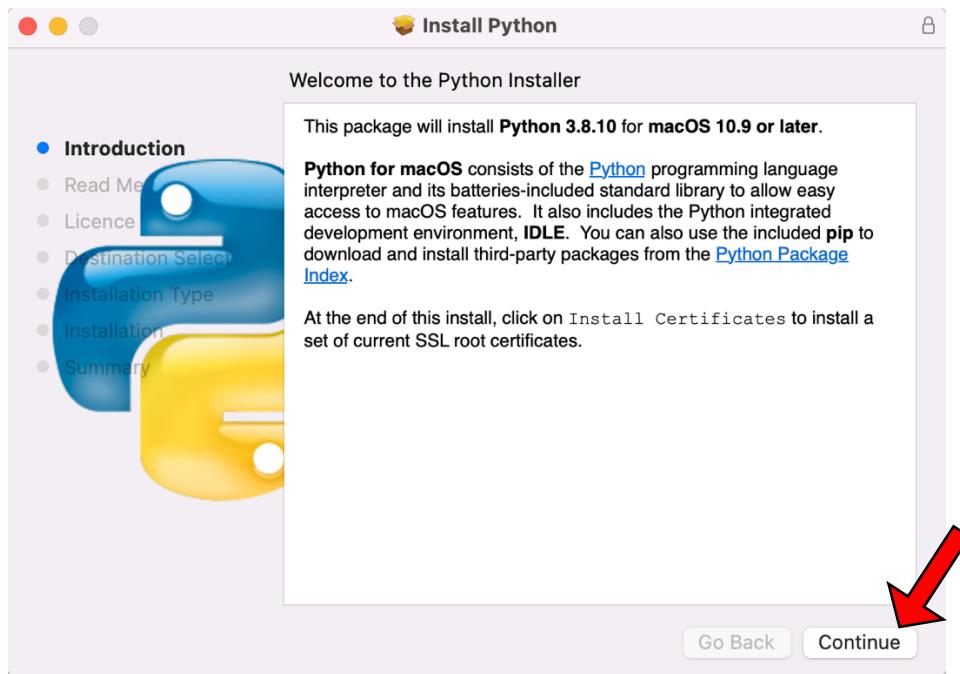
Files

Version	Operating System	Description	MD5 Sum	File Size	GPG
Gzipped source tarball	Source release		83d71c304acab6c678e86e239b42fa7e	24720640	SIG
XZ compressed source tarball	Source release		d9eee4b20155553830a2025e4dcaa7b3	18433456	SIG
macOS 64-bit Intel installer	macOS	for macOS 10.9 and later	690ddb1be403a7efb202e93f3a994a49	29896827	SIG
macOS 64-bit universal2 installer	macOS	experimental, for macOS 11 Big Sur and later; recommended on Apple Silicon	ae8a1ae082074b260381c058d0336d05	37300939	SIG
Windows embeddable package (32-bit)	Windows		659adf421e90fba0f56a9631f79e70fb	7348969	SIG
Windows embeddable package (64-bit)	Windows		3acb1d7d9bde5a79f840167b166bb633	8211403	SIG
Windows help file	Windows		a06af1ff933a13f6901a75e59247cf95	8597086	SIG
Windows installer (32-bit)	Windows		b355fc84b681ace8908ae50908e8761	27204536	SIG
Windows installer (64-bit)	Windows	Recommended	62cf1a12a5276b0259e8761d4cf4fe42	28296784	SIG

6. Run the downloaded installation file

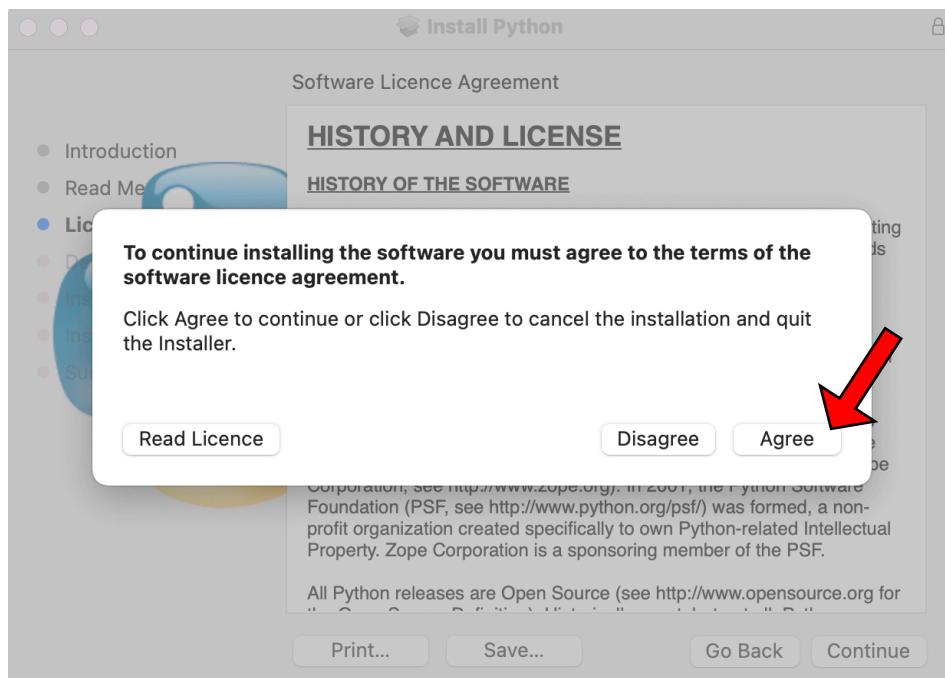


7. The following window should appear:

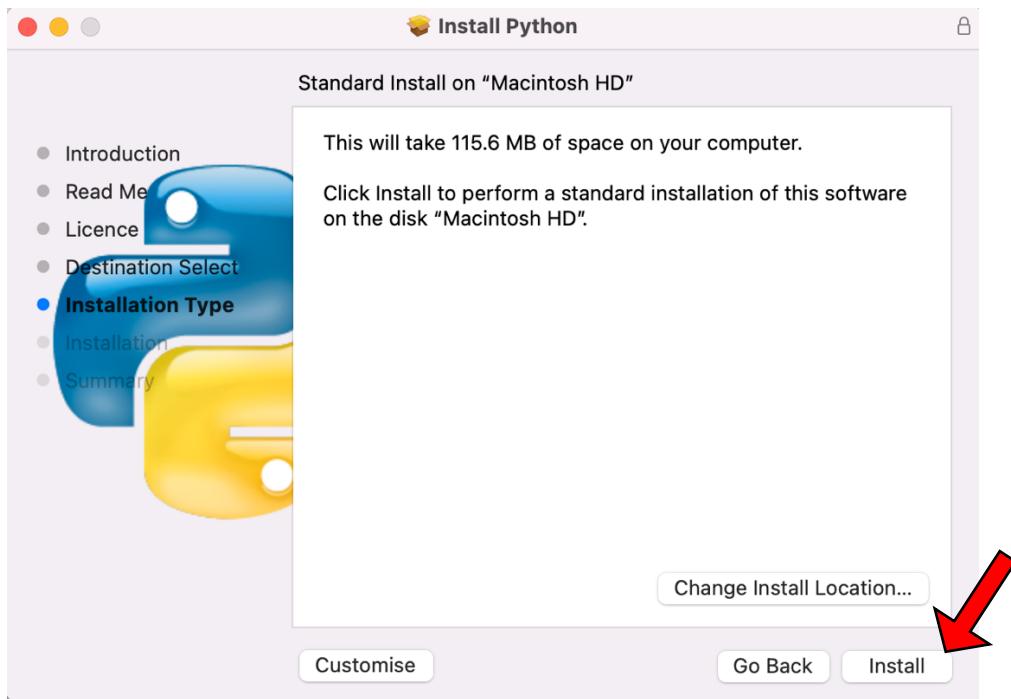


8. Follow the installation instructions (choose “continue” when applicable).

9. Agree to the terms of license agreement:



10. In the following window choose “Install”



11. Follow the installation until it is done.

12. Congratulations, Python is installed!

Step 2: Install Wing101

1. Open your web browser and go to <https://wingware.com/downloads/wing-101>
2. Click the green button “MacOS Installer Intel 64-bit”

A screenshot of the Wing 101 download page. The page features the Wing IDE logo and the tagline "THE INTELLIGENT DEVELOPMENT ENVIRONMENT FOR PYTHON". Below this, there's a section for "Wing 101 - Version 8.1.2 - Released 2021-12-13". It includes a brief description of Wing 101 and links to "Python Programming Fundamentals" and "accompanying screen casts". There's also a note that Wing 101 is free to use. On the left, there's a sidebar with links to "Tutorial", "Quick Start Guide", and "What's New". At the bottom, there are links for "Other OSes", "Other Versions", and "Other Products". On the right, there are sections for "Supported OSes", "Supported Python Versions", and "Change Log". Two green download buttons are present: one for "MacOS Installer Intel 64-bit" and another for "MacOS Installer Apple Silicon". Both buttons have a red arrow pointing to them. SHA-1 checksums are listed below each button.

3. If your download does not start automatically, click this link to download and save the installation file:



Thanks for Downloading Wing 101!

Wing 101 is a very simple free Python IDE designed for teaching beginning programmers. Check out the book [Python Programming Fundamentals](#) and accompanying screen casts, which use Wing IDE 101 to teach programming with Python.

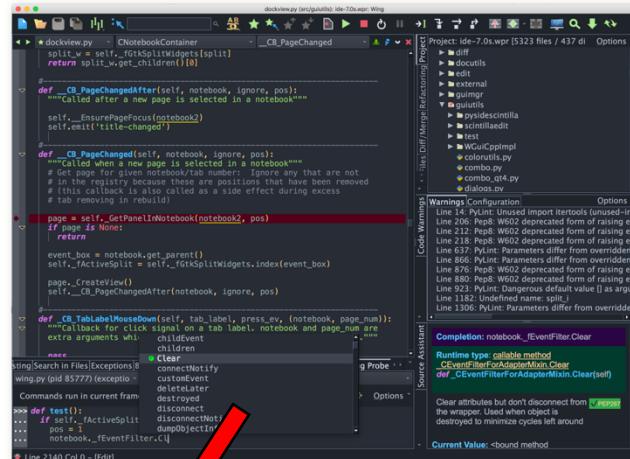
Next Steps

To get started, take a look at the following:

- [Quick Start Guide](#) - a quick overview
- [Tutorial](#) - a gentle introduction
- [Product Manual](#) - detailed documentation

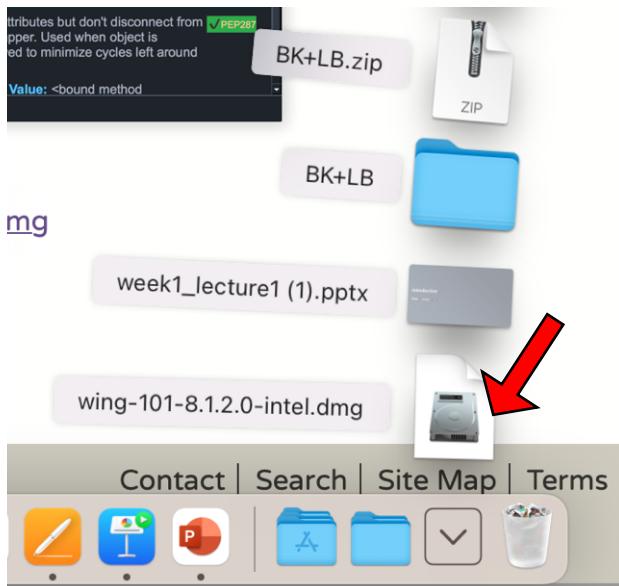
Please Donate!

Help us keep Wing 101 free by [making a small donation](#)!

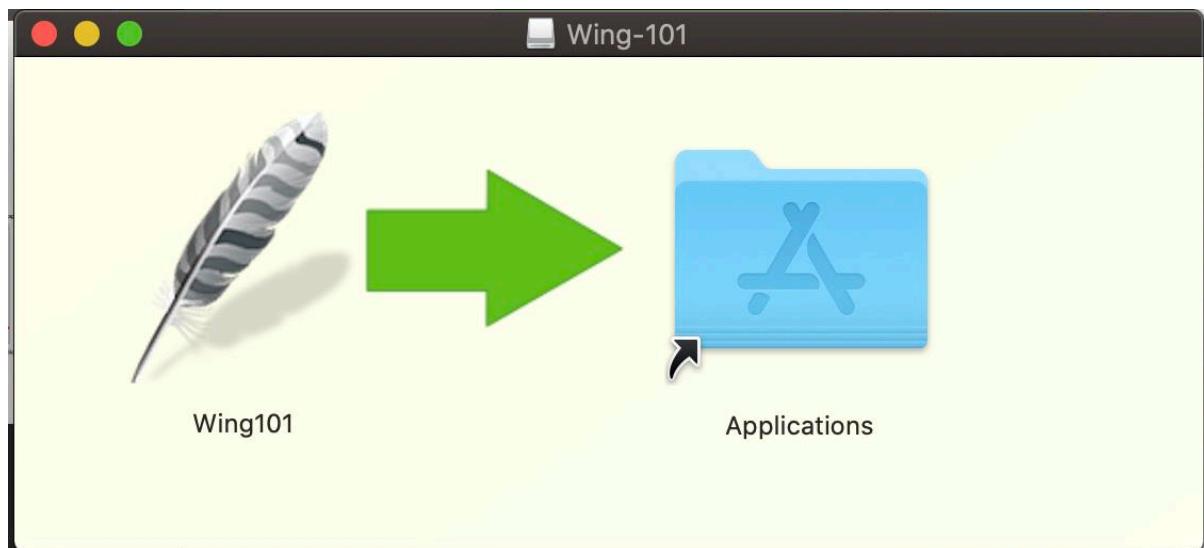


If your download did not start, click here: <https://wingware.com/pub/wing-101/8.1.2.0/wing-101-8.1.2.0-intel.dmg>

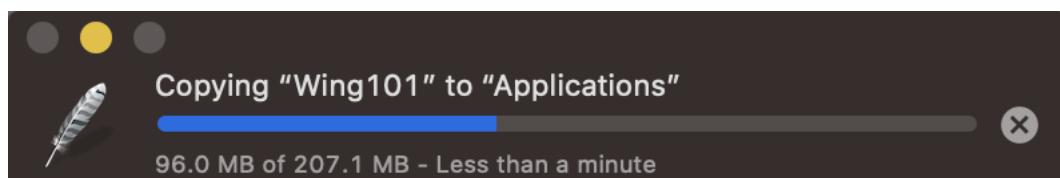
4. Run the downloaded installation file:



5. Click on "Wing101" and drag it to the "Applications" folder:



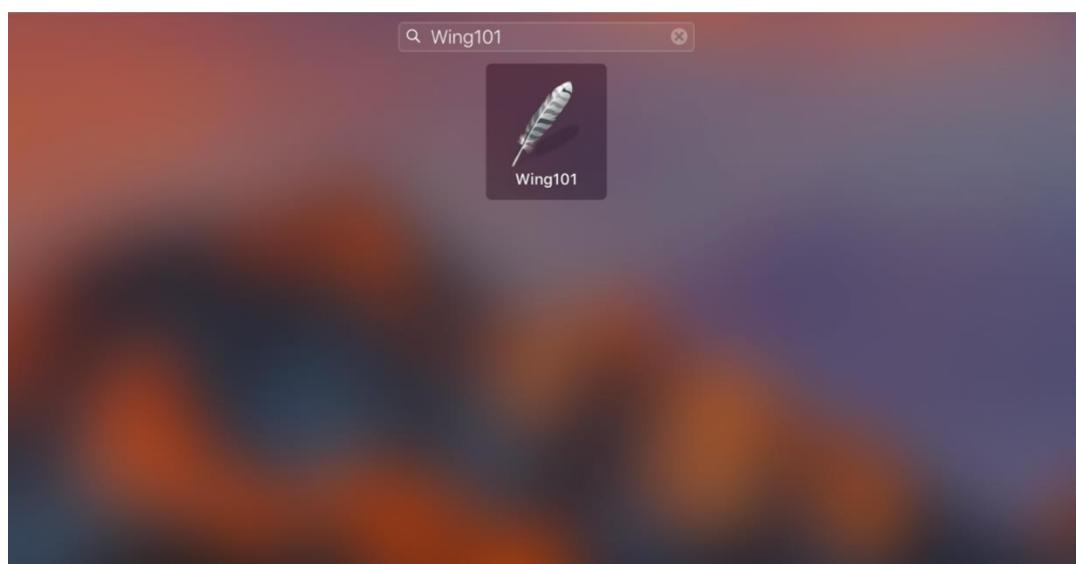
6. Wait until installation is complete:



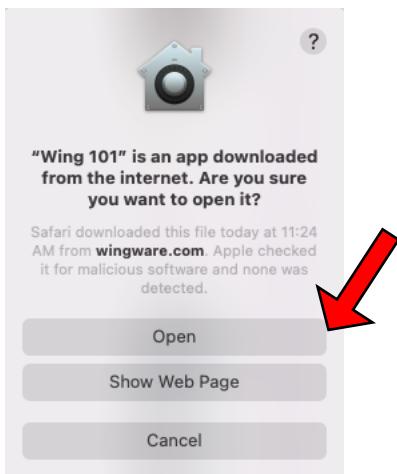
7. Wing101 is installed!

Step 3: Running Wing101

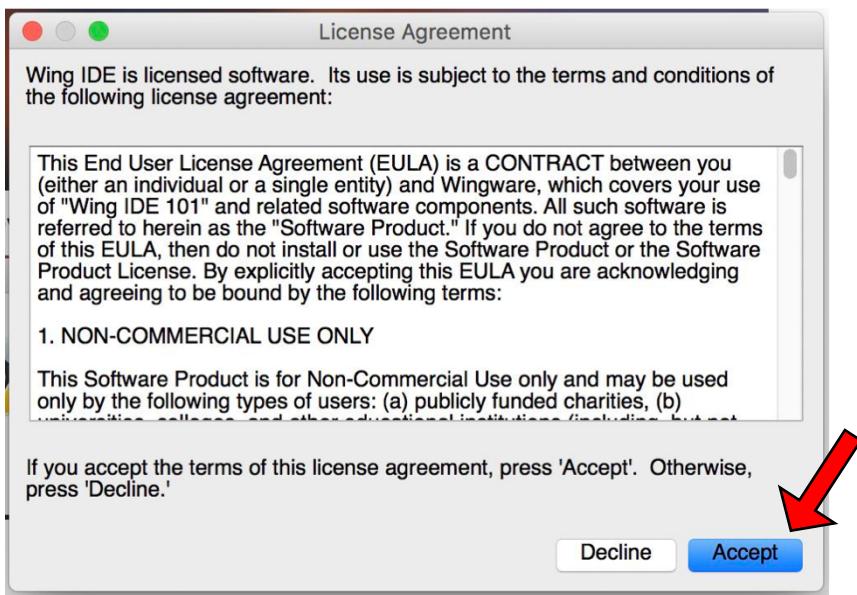
1. Find Wing101 in your Launchpad or Applications folder and click on the icon of Wing101:



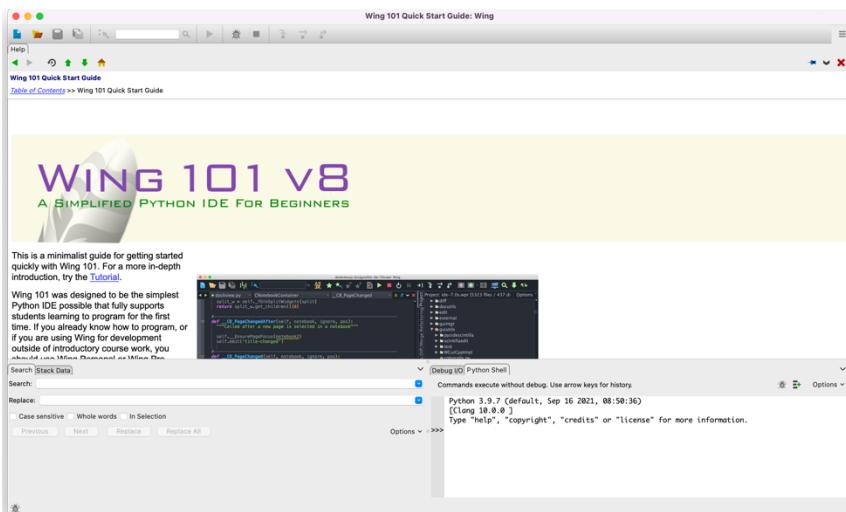
2. If the following window appears – choose “Open”



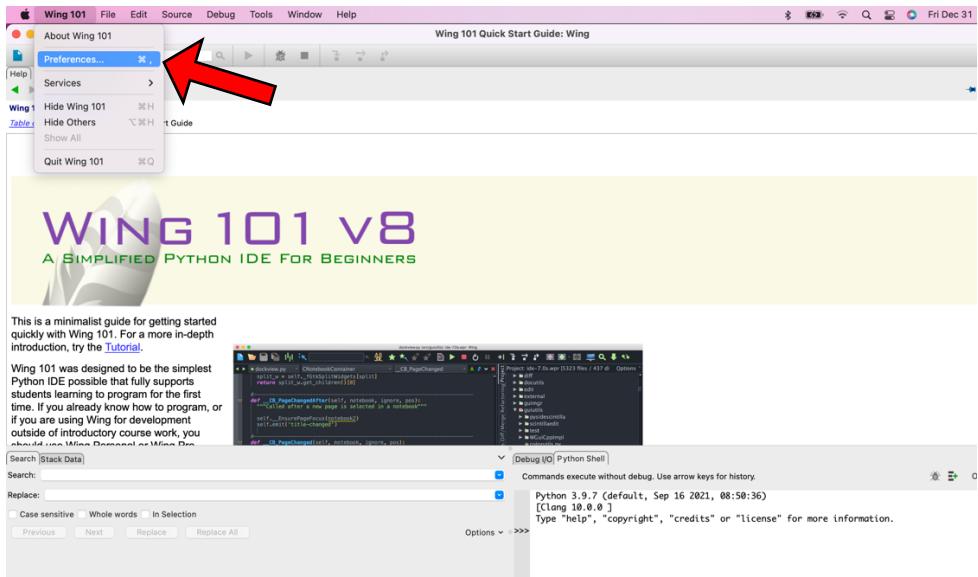
3. If the following window appears – choose “Accept”:



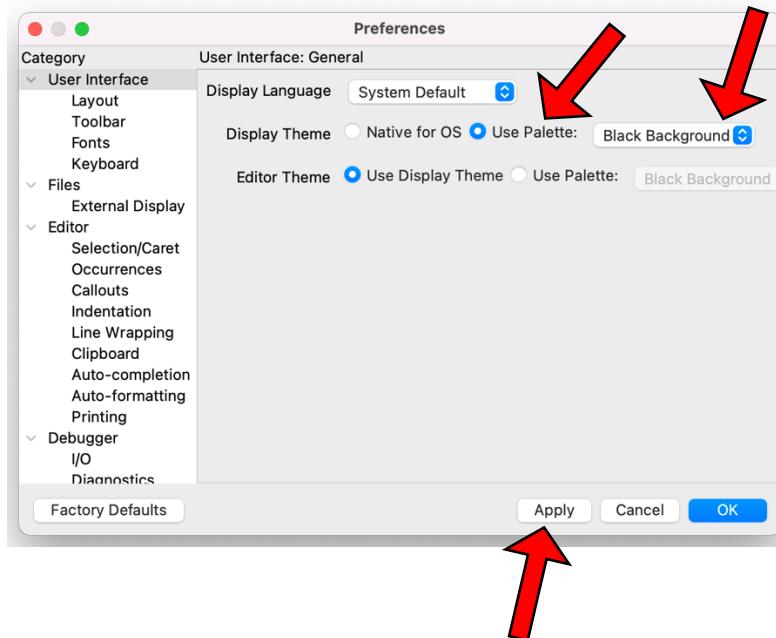
4. You should now see the following screen:



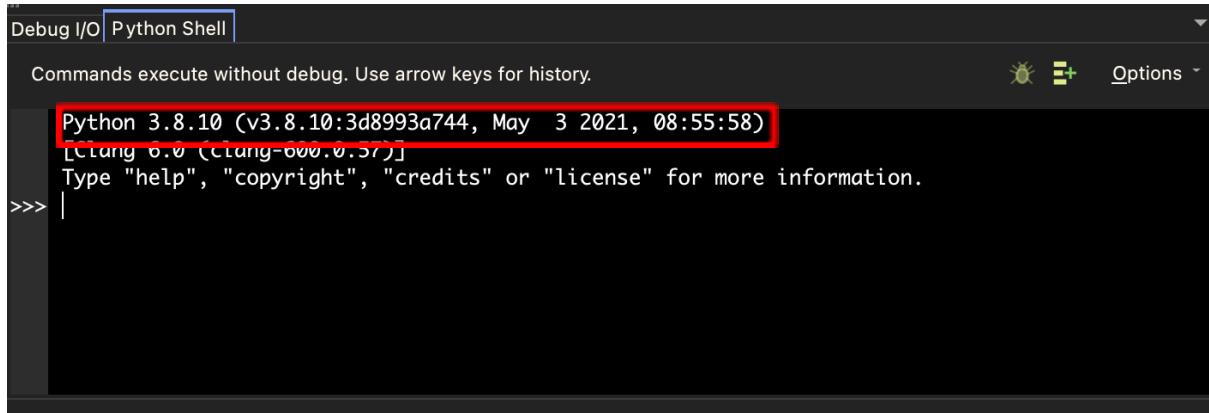
5. OPTIONAL: If you want to change your user interface color palette, go to Wing101 → Preferences



- a. Inside the User Interface category, you can switch from “Native for OS” to “Use Palette” and select your background of choice. Press Apply when ready.



6. If the Python version listed in the Python shell is Python 3.8.10, then Wing101 is ready to use!



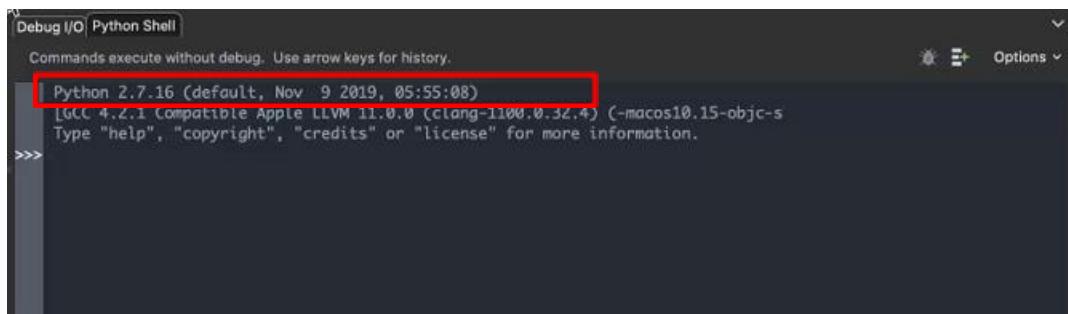
Debug I/O Python Shell

Commands execute without debug. Use arrow keys for history.

Python 3.8.10 (v3.8.10:3d8993a744, May 3 2021, 08:55:58)
[Clang 6.0 (clang-600.0.57)]
Type "help", "copyright", "credits" or "license" for more information.

```
>>> |
```

7. If the Python version listed in the Python shell is not Python 3.8, you will need to configure your Wing101 to use the correct version.



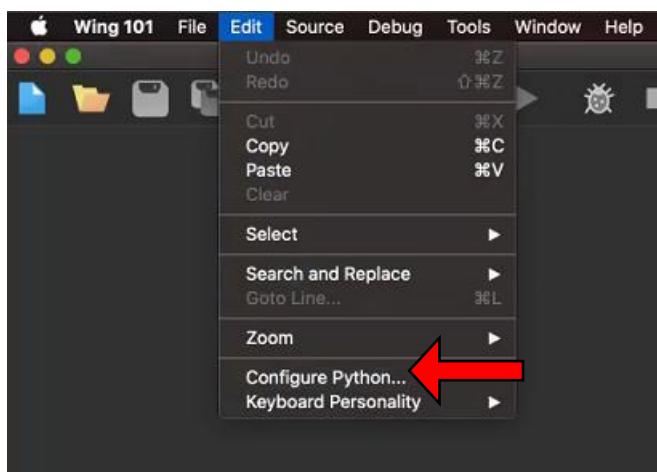
Debug I/O Python Shell

Commands execute without debug. Use arrow keys for history.

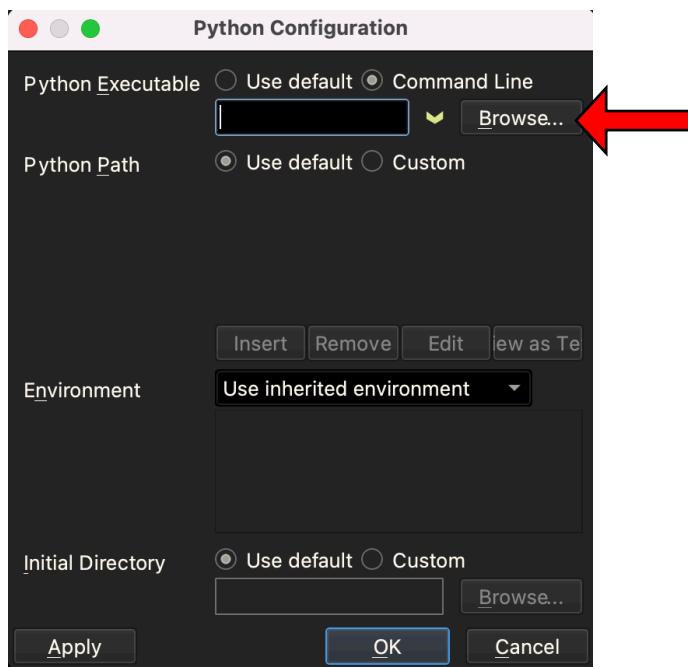
Python 2.7.16 (default, Nov 9 2019, 05:55:08)
[GCC 4.2.1 Compatible Apple LLVM 11.0.0 (clang-1100.0.32.4) (-macos10.15-objc-s]
Type "help", "copyright", "credits" or "license" for more information.

```
>>> |
```

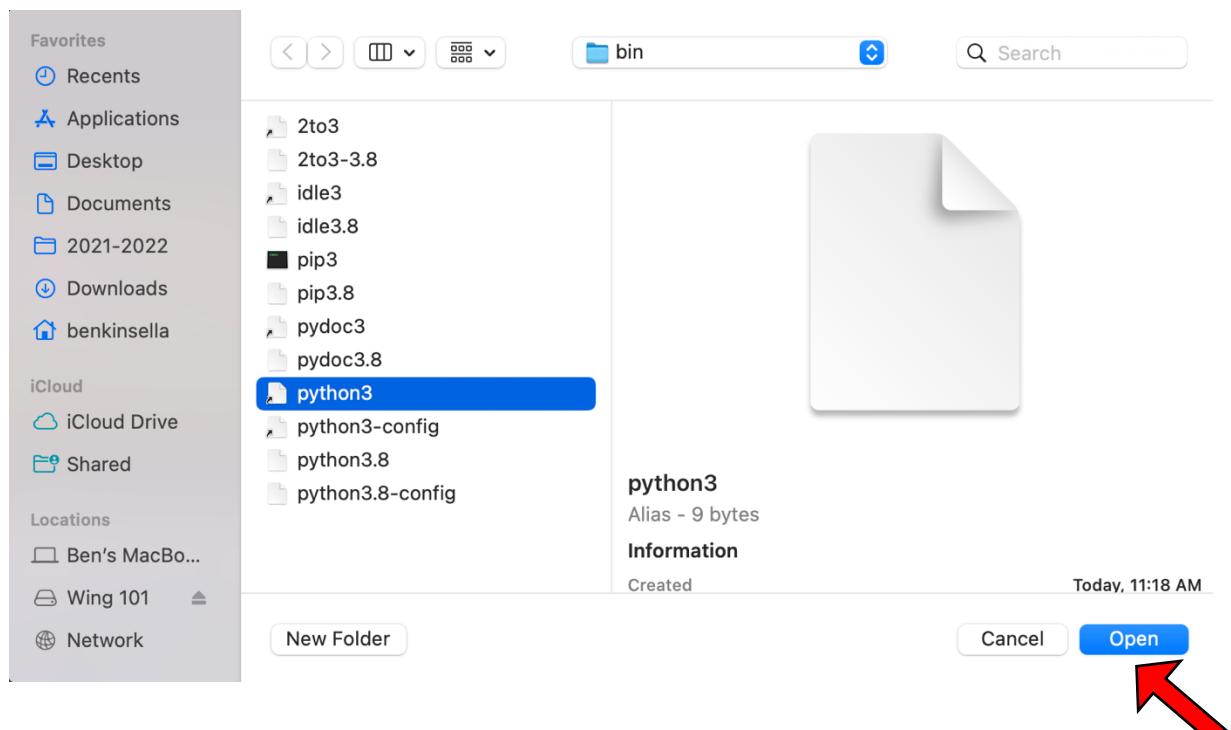
8. To change the Python version, click “Edit” → “Configure Python”



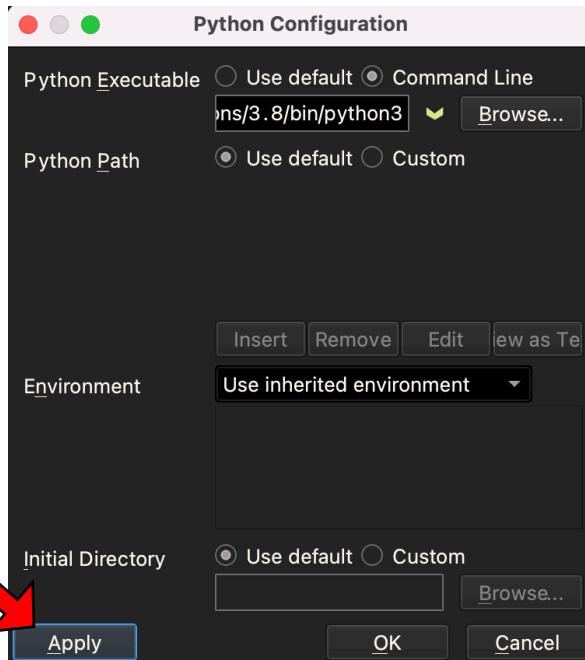
9. Under the Python Executable select “Command Line” and click “Browse”



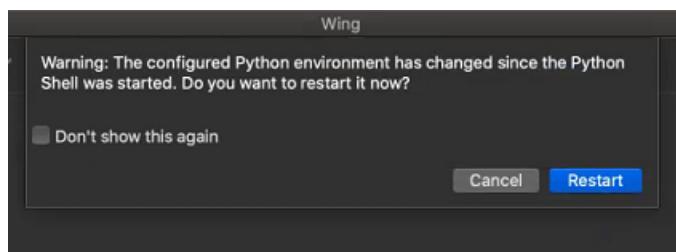
10. Navigate to the /Library/Frameworks/Python.framework/Versions/3.8/bin/ folder and select “python3”. Click Open.



11. Click Apply



12. If you see the following prompt, click Restart.

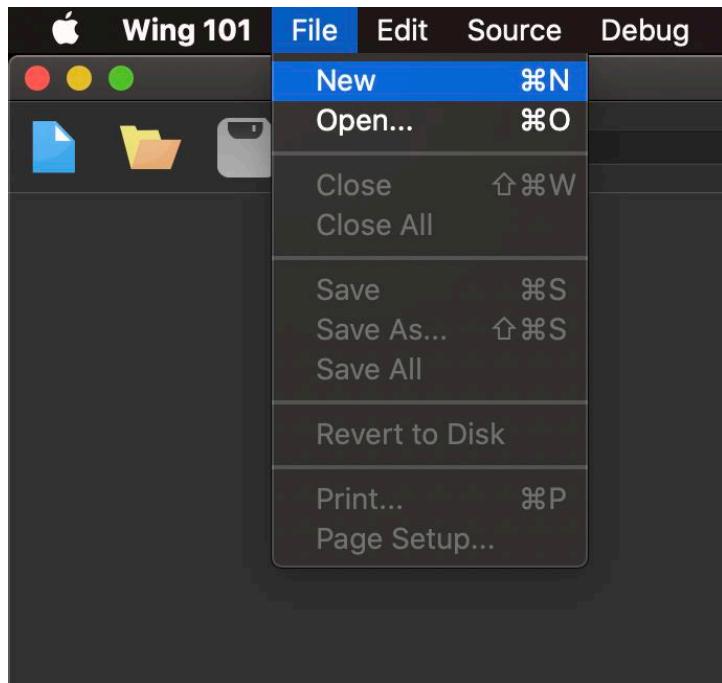


13. See that the Python version in the Python shells shows 3.8.10 now. Wing101 is now ready to use!

The screenshot shows the Wing IDE interface with the 'Python Shell' tab active. The shell window displays the Python version: 'Python 3.8.10 (v3.8.10:3d8993a744, May 3 2021, 08:55:58) [Clang 6.0 (clang-600.0.57)].' Below it, the text 'Type "help", "copyright", "credits" or "license" for more information.' and the prompt '>>> |' are visible. The 'Python Shell' tab is highlighted with a blue border.

Step 4: Your first Python code

1. Open a new file using File -> New



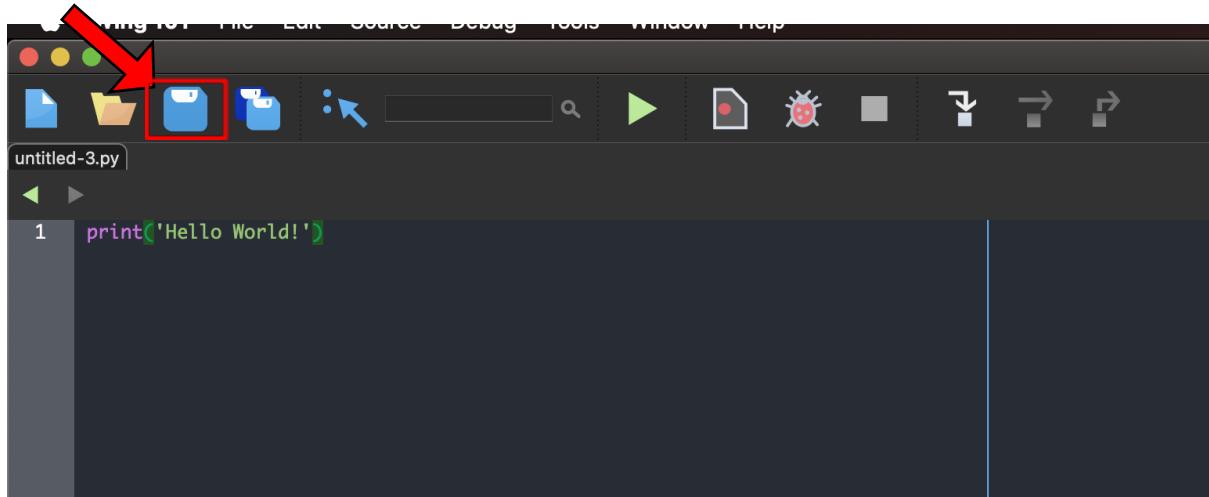
2. Write the following line in the new document: `print("Hello World!")`

A screenshot of the Wing 101 IDE showing a new Python file named "untitled-3.py". The code editor contains the single line of code:

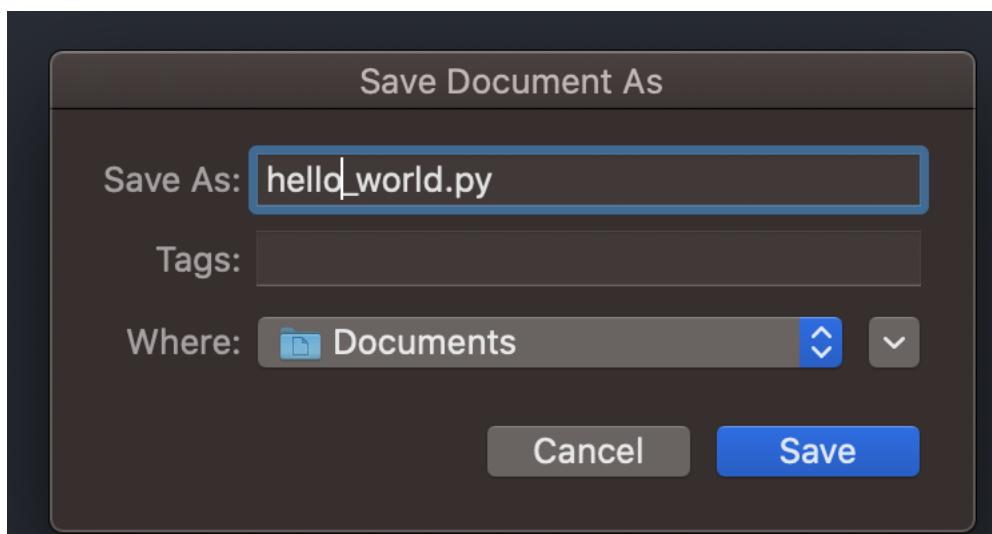
```
1 print('Hello World!')
```

. The interface includes a toolbar with various icons for file operations, a search bar, and a set of navigation and run/debug buttons. The status bar at the bottom shows "File Edit Source Debug Tools Window Help".

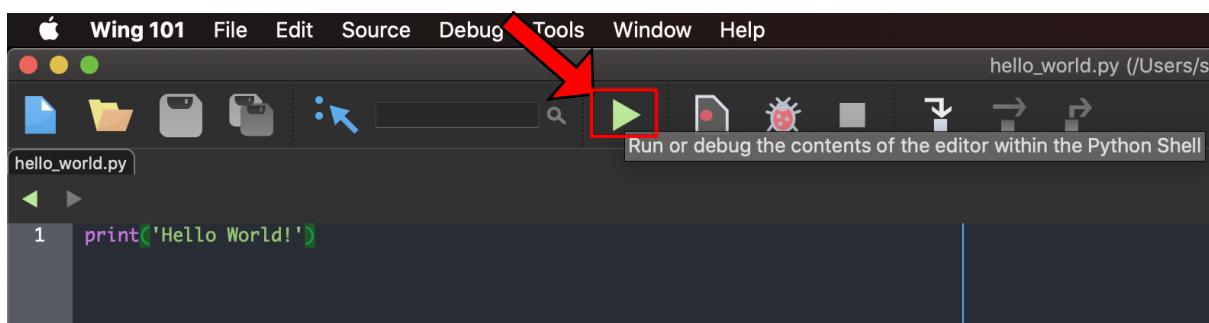
3. Save your file using the save icon (like you would in Microsoft Word).



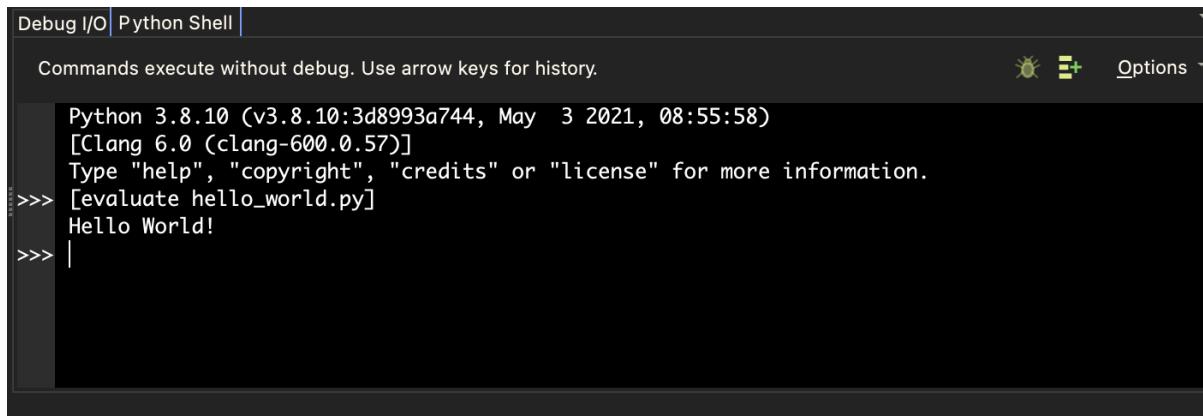
4. In the pop-up window, pick a name for your file, and a location to save the file in. Use the arrow button if you want to browse to a different location.



5. Once saved, you can run your file (using the run icon that looks like the play symbol)

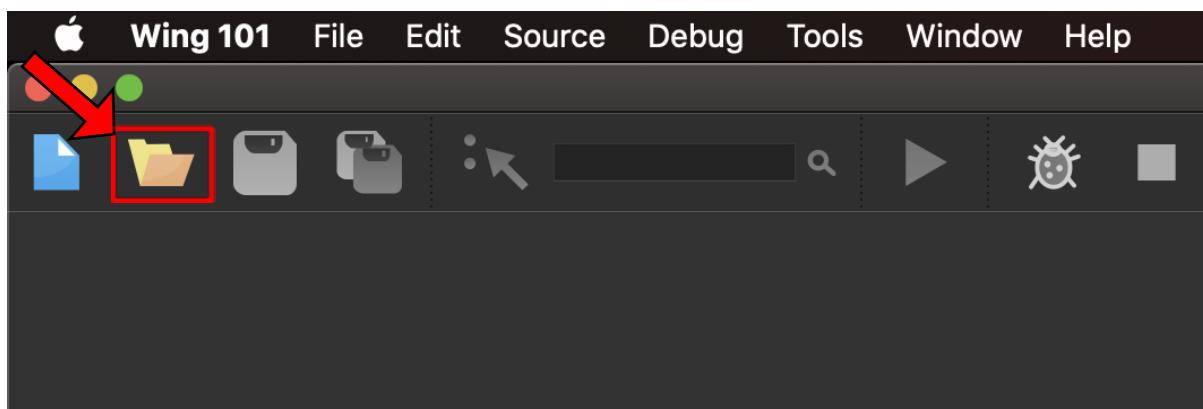


6. Make sure the result appears in the “Python Shell” window on the bottom-right corner:



The screenshot shows the Python Shell window in a dark-themed IDE. The title bar says "Debug I/O | Python Shell". The shell displays the following text:
Python 3.8.10 (v3.8.10:3d8993a744, May 3 2021, 08:55:58)
[Clang 6.0 (clang-600.0.57)]
Type "help", "copyright", "credits" or "license" for more information.
>>> [evaluate hello_world.py]
Hello World!
>>> |

7. You can later open this file in Wing101 using the open icon



8. Congratulations, you just wrote, saved, and ran your first Python program! You've earned a picture of a programming cat:

