CS-UY 1114: Lab 0

Getting Started

Welcome to your CS-1114 lab section for the semester!

This lab assignment will help you get started with writing Python programs on your computer. You will be installing Python3 and IDLE (an Integrated Development Environment or IDE). This will allow you to write and test code for the course on your computer.

For this course you will be submitting code for homework to Gradescope which is integrated directly into Brightspace. We will be grading your work through Gradescope.

Lets get started! As you have questions please ask your lab CAs for assistance.

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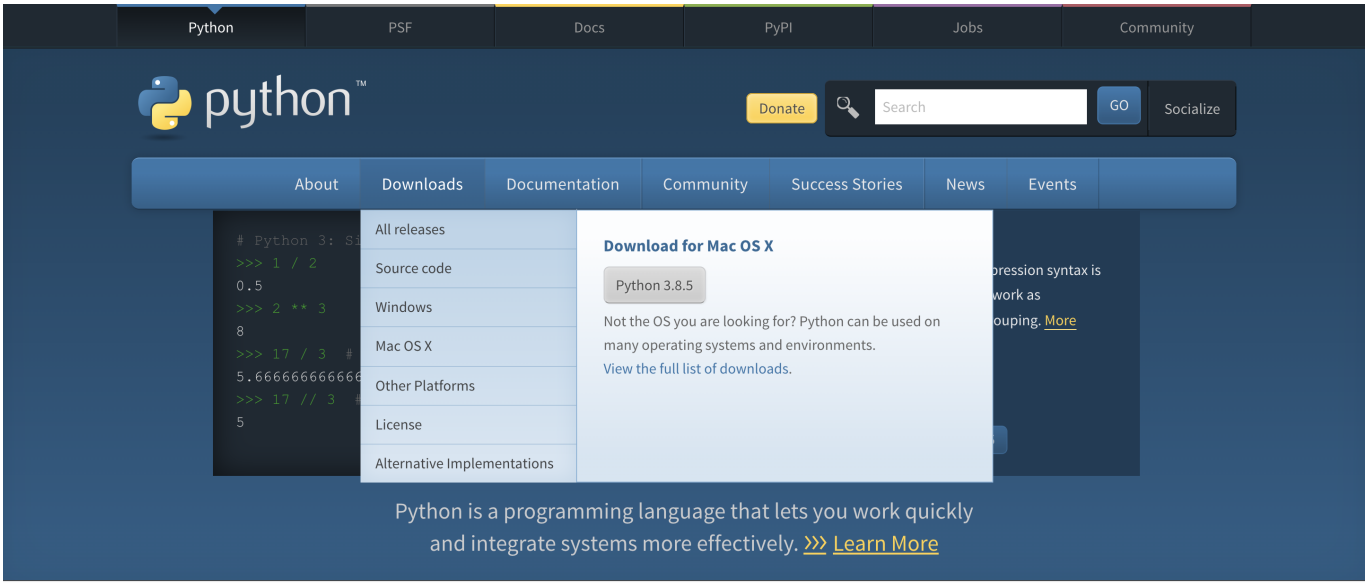
Step 1: Install Python

Visit the Python.org website. Hover over the **Downloads** tab and click on the grey button under **Download for <Operating System>** where <Operating System> is the operating system that you are using.

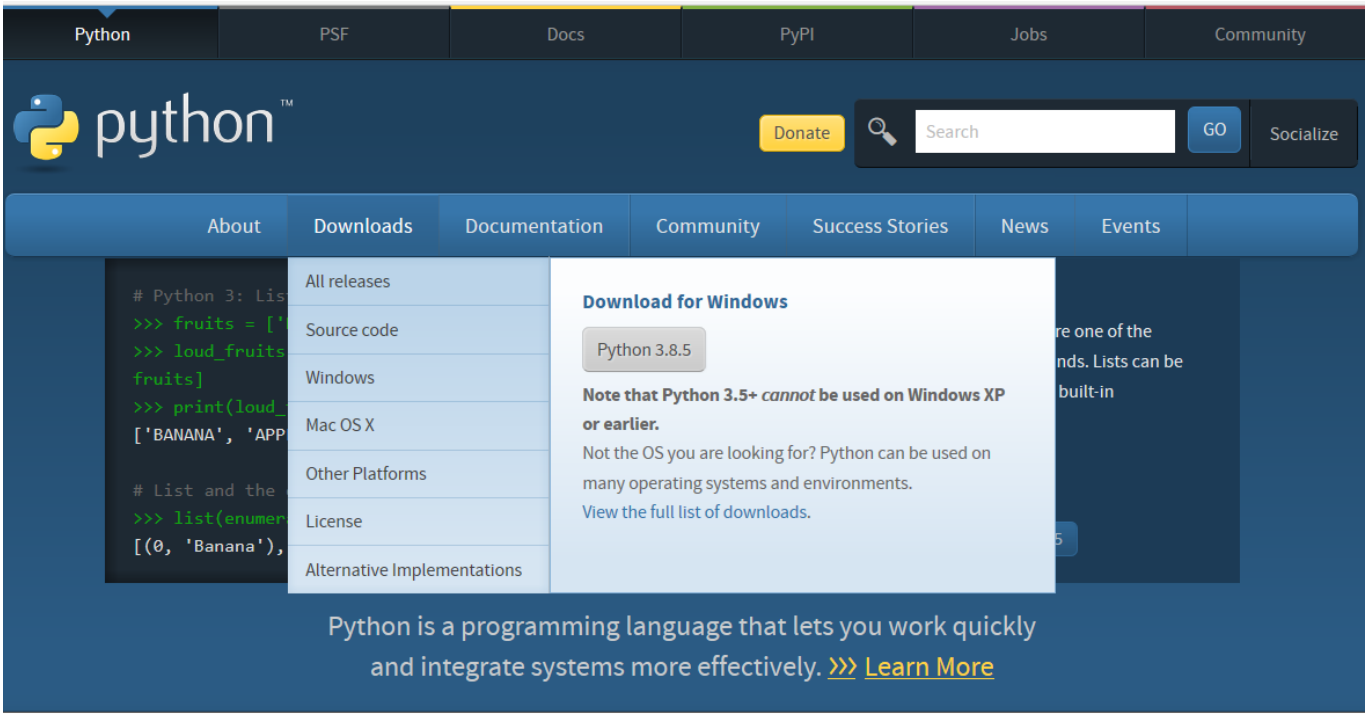
For **Mac OS**, you will see:



- Clicking on the grey button will download a **.pkg** file. When the download is complete, double-click the **.pkg** file to begin the **Python3** installation process.
- Follow the instructions to complete the installation of Python3.

- Before closing the **Install Python** window, follow the instructions for installing the **SSL root certificates**. This simply requires that you double-click the file named **Install Certificates.command** in the new Python folder opened during the installation process.

For a **Windows PC**, you will see



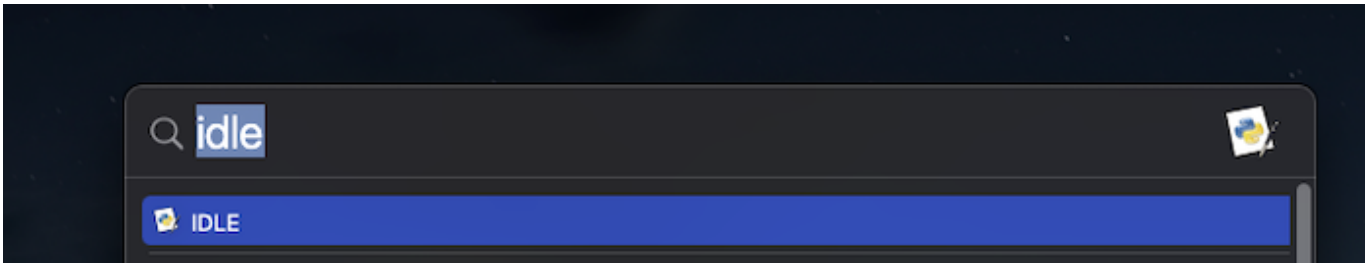
- Clicking on the grey button will download a **.exe** file. When the download is complete, double-click the **.exe** file to begin the **Python3** installation process.
- On the first screen of the setup, be sure to check the box next to "Add Python 3.8 to PATH". **This is very important**.
- Follow the instructions to complete the installation of Python3.

If you are using **Linux**, it is difficult to provide a comprehensive guide supporting all versions of Linux. You should install the latest version of Python 3 using your operating system's package manager.

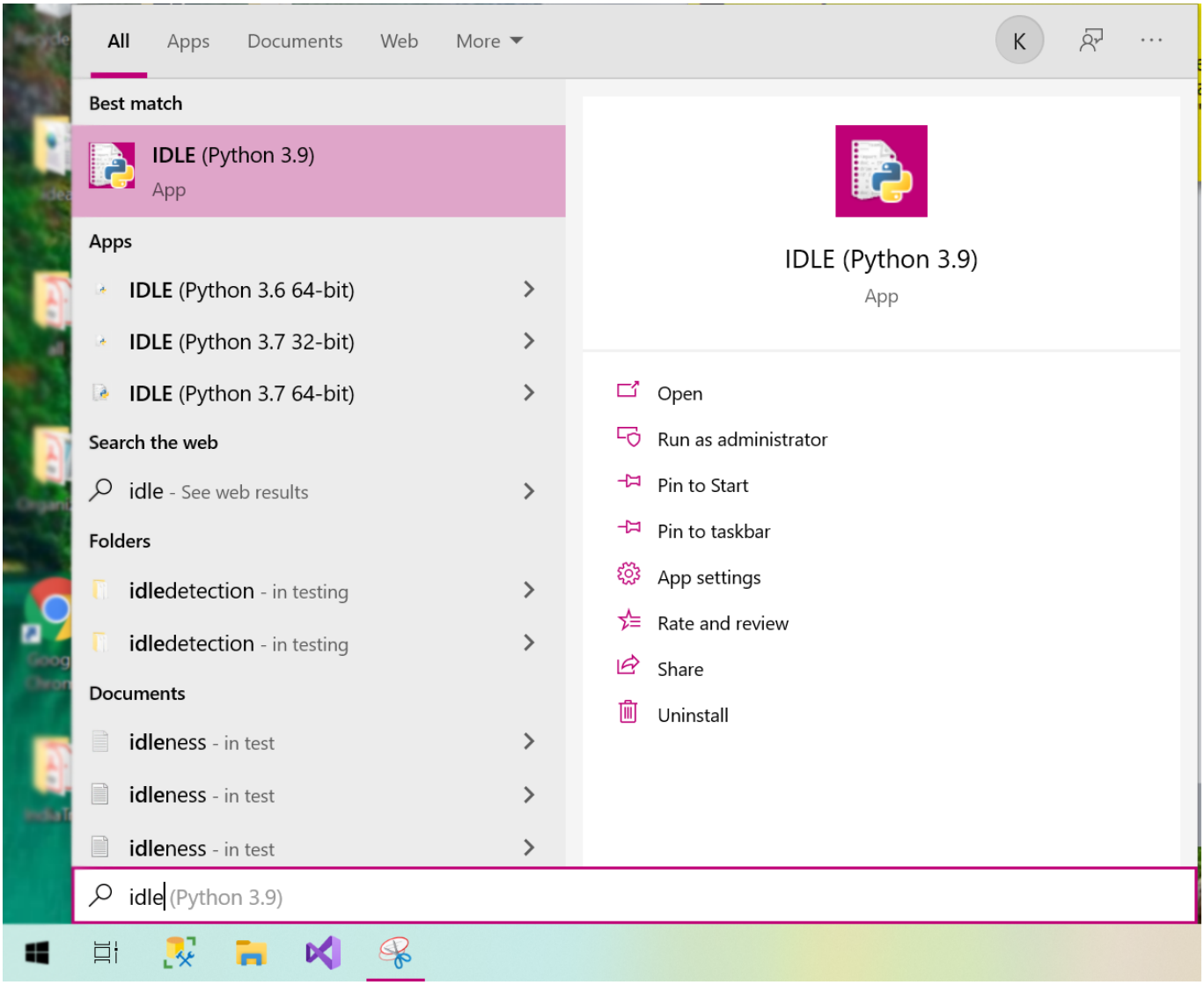
Step 2: Opening IDLE

Installing Python 3 automatically installs IDLE which is the IDE we will be covering in this lab. All you need to do is find IDLE on your computer.

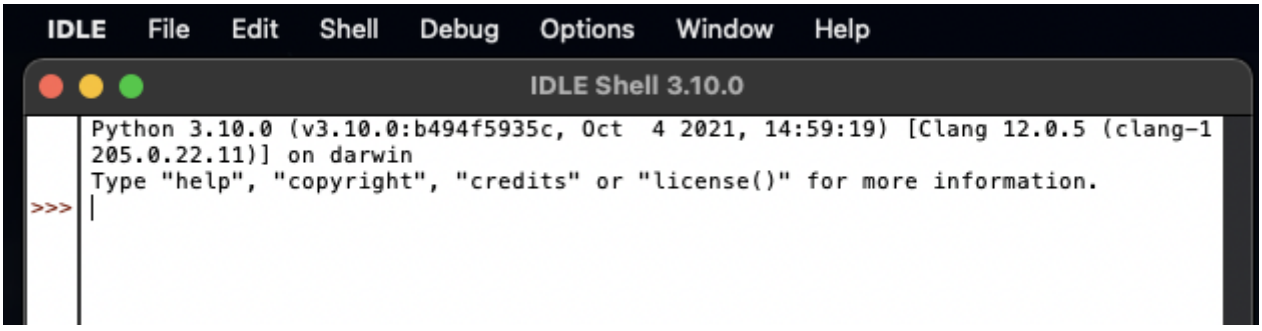
For **Mac OS**, you can use the spotlight to find the IDLE application as shown below:



For a **Windows PC**, you can use the windows search to find the IDLE application as shown below:

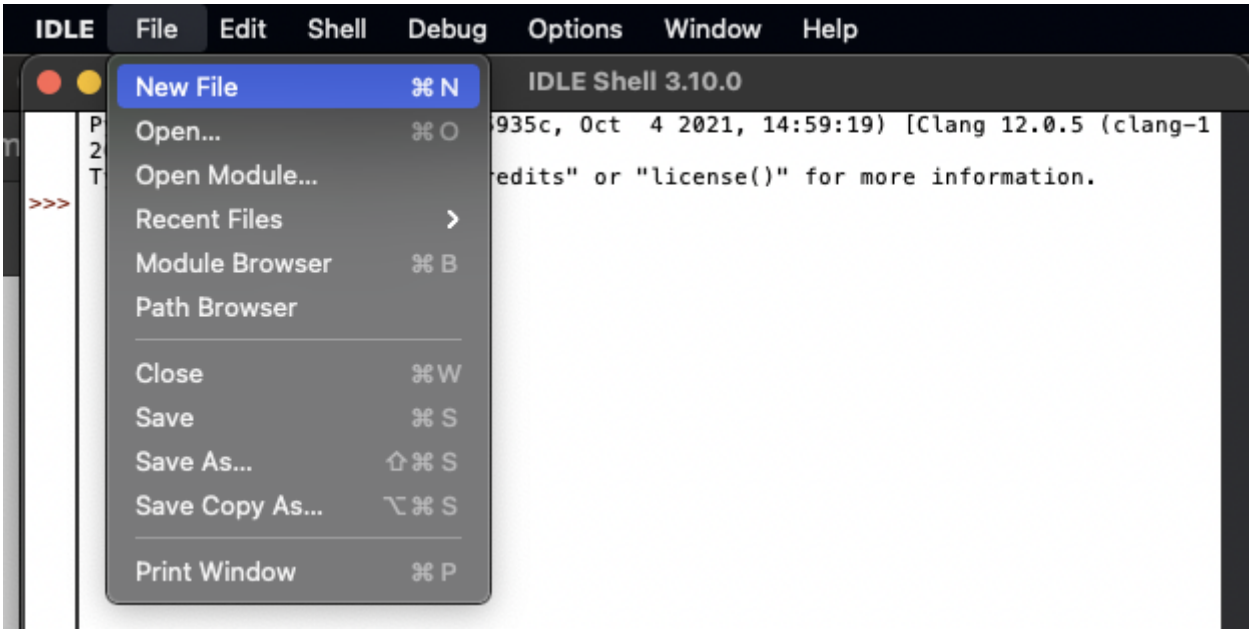


For all Operating Systems: This is the IDLE Shell that opens by default.



Step 3: Hello World Assignment

The first step of this program is to make a new file to write our program in.



This will open up an empty Python file that you will be using to write your code.

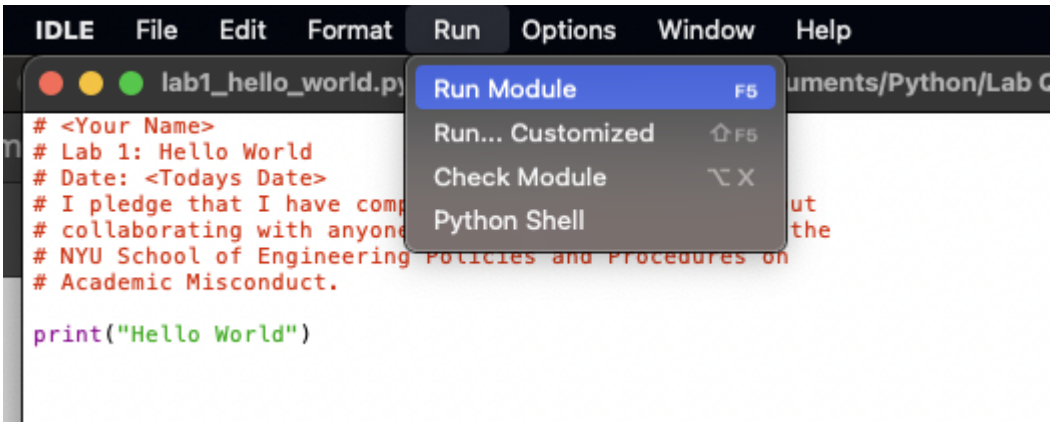
First put in the following header that willl be required for all files you submit. For homework this helps verify your name and signs the honor code.

```
# Author: <Your Name>
# Lab 0: Hello World
# Date Due: 01/28/2022
# I pledge that I have completed this assignment without
# collaborating with anyone else, in conformance with the
# NYU School of Engineering Policies and Procedures on
# Academic Misconduct.
```

Next below the header write the following code snippet.

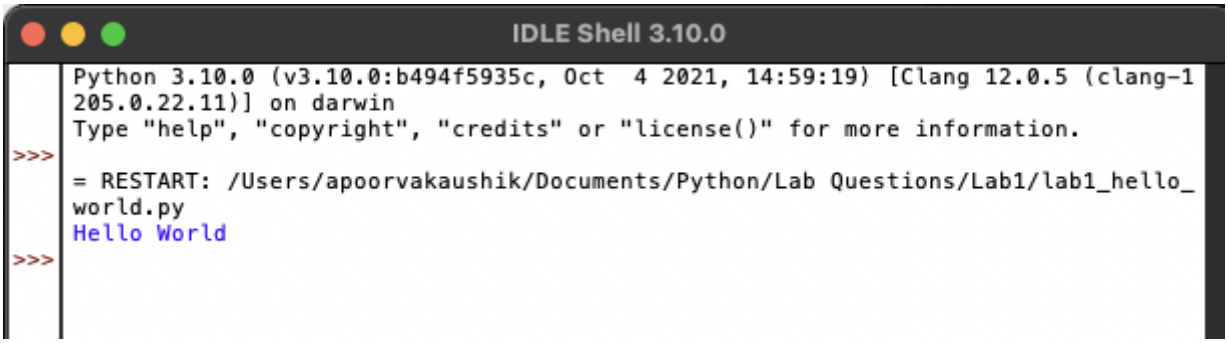
```
print("Hello World!")
```

Now you should be able to run the code by either clicking **run -> run module** (as shown below) or pressing **F5**.



If you have not already saved the Python file IDLE will prompt you to save the source code. Save the code somewhere on your computer and name it **hello_world.py**

Now when you run your code an IDLE shell will pop up and show the output of your code.



A couple of tips for IDLE

1. Turn on line numbers by going to **Options -> Show Line Numbers**
2. You can comment and uncomment sections of code by going to **Format -> Comment Out/Uncomment Region**
3. You can indent and dedent sections of code by going to **Format -> Indent/Dedent Region**

Step 4: Assignment Submission

1. Login to Brightspace site and access this course's site.
2. Within the Brightspace course site, click on **Gradescope** in **Table of Contents** section. The **Gradescope Dashboard** will open.
3. Click on **Lab 0 - Getting Started**.
4. Submit your **hello_world.py** file by either dragging the file to the upload dialog window or uploading the file from its location on your computer.

You will then receive a message indicating that your submission was successfully submitted as well as an email with the same information.

One final note is that there are certain coding style conventions that must be met in your submitted programs. These conventions will be clearly explained in every assignment that you submit. These conventions will be verified in a manual grading process that will also be a part of your grade.

Congratulations! You have just completed your first assignment

Now that you have submitted your file, please let your lab CA know so they can check you out.

Step 5: Other IDEs (Optional)

The following IDEs are listed on the syllabus as options for this course.

1. Jet Brains Pycharm
2. Thonny

You can feel free to install and set them up if you would prefer them over IDLE. You are also free to use any other code editor such as VS Code or Sublime.

It is your responsibility to be able to write and run code to submit for this course whether your use IDLE or another IDE.

Getting Help

If you are having trouble setting up your programming environment, please talk to a CA in lab. If you can not get your IDE running in lab please go to office hours as soon as possible