CICS 397A – Fall 2022

Lab 9/14: Setting Up Your Dev Environment

Due Friday, September 16th at 11:59pm

The goal of this lab is to get you up and running with Visual Studio Code and the Anaconda Python distribution. Most of the time, getting these installed and functioning is pretty straightforward, but YMMV depending on your individual setup.

If you run into trouble, don't be distraught! The purpose of doing this together is to try and reduce the inevitable headaches that come with system configuration. Feel free to consult your classmates or instructor if you need help.

Instructions

1. Download the file `397a_9-14.zip` from Moodle. Save it somewhere you'll be able to find later.

2. Download and install the Anaconda Python distribution from here: https://www.anaconda.com/products/individual

   Anaconda provides an up-to-date version of Python, along with a suite of commonly used modules. In addition, it provides the Anaconda Navigator application for managing environments and tools.

3. Open a terminal window to get a command prompt (see instructions for Windows, Mac, and Linux). At the prompt, type `python` and hit `<enter>`. You should see something similar to the following:

   ```
   (base) purple:~ rattigan$ python
   Python 3.9.7 (default, Sep 16 2021, 08:50:36)
   [Clang 10.0.0 ] :: Anaconda, Inc. on darwin
   Type "help", "copyright", "credits" or "license" for more
   information.
   >>>
   ```

   Type (or copy and paste) the following at the `>>>` prompt:

   ```
   print("Hello, 190T!")
   ```

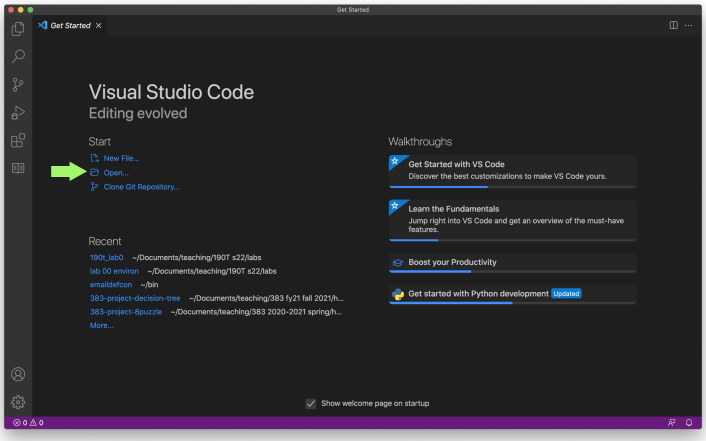
Verify that it runs without error:

```
>>> print("Hello, 190T!")
Hello, 190T!
>>>
```

4. Download and install Visual Studio Code from here:
   https://code.visualstudio.com/

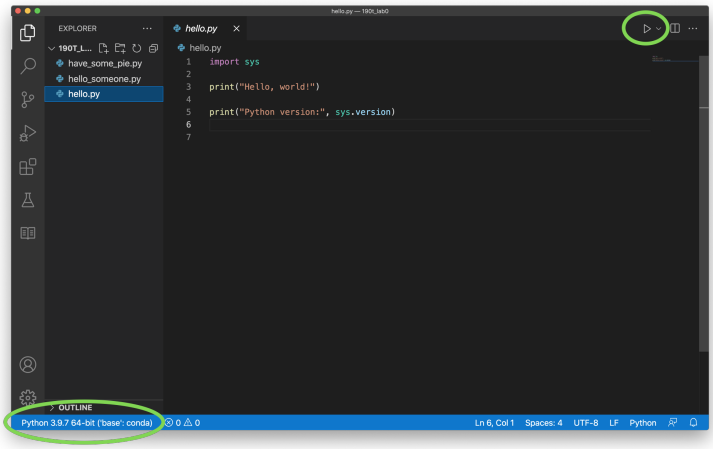
   Next, install the Python for Visual Studio Code extension:
   https://marketplace.visualstudio.com/items?itemName=ms-python.python

5. Once you've finished installing, launch the VSCode application. When you see the screen below, click `Open…` and select the folder that you saved in step 1.



6. Click on `hello.py` in the left hand column of the VSCode window. You should see some Python code in the editor window.

   In the lower-left corner, select the "base: conda" version of the Python interpreter.



   Next, click on the run button ▸ in the upper-right corner of the window. Verify that the program runs without error, and that the Python version is > 3.9.0 by checking the output in the console found in the lower pane of the VSCode window.

7. Now click on `have_some_pi.py` in the left column, and run it using the ▸ button. Verify that it is able to import `numpy` and run without error. The `numpy` module contains specialized tools for numeric computing. We're doing this to verify that Anaconda was able to install all of the dependencies correctly.

   Windows users: you may need to adjust your path in order to get Python to locate libraries correctly. See the instructions here if you're having trouble: https://medium.com/@akhilsai831/setting-up-anaconda-environment-with-visual-studio-code-in-windows-10-ac3f9afd80e0

8. Open the file called `piglatin.py`, examine the code, and run it. The program should print out "397A amat te."[1] to the console.

   Add some code that will print out "My pig latin name is" followed by your name translated into pig latin (use the provided `pigify()` function). For example, if your name is Kipo Oak, then the program should print out "My pig latin name is ipoKay Oakay."

   Run your using the ▸ button, using the terminal console at the bottom of the screen to examine your output.

9. Upload your `piglatin.py` to Gradescope: https://www.gradescope.com/courses/437854

10. You're done! Go have a Moxie or some lesser beverage.

Possible problems:

[1] This is regular Latin.

- Windows: May need to cmd-shift-p terminal: select profile to point to cmd instead of powershell