IT 166 Lab 1

Python environments

Welcome to your first lab session! The lab sessions give you an opportunity to make sure you understand the course material and they give you a chance to practice new skills before using them to write your larger lecture programs. Therefore, you should take your lab work seriously.

The goals of this lab session are listed below.

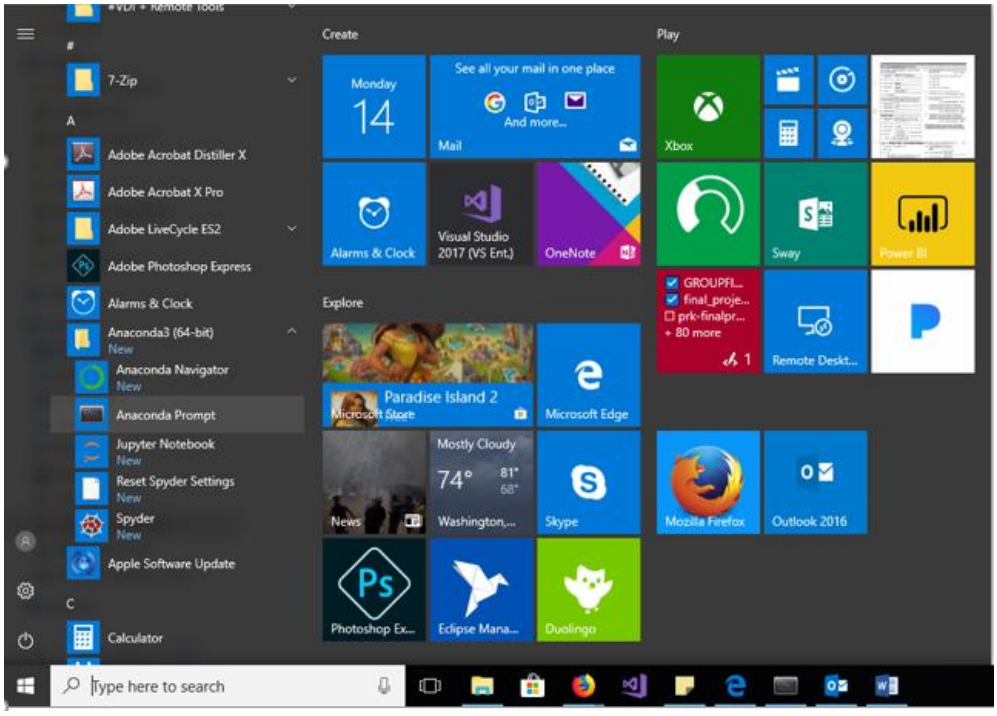
Goals

1) Be able to launch and quit Python environments (ipython and jupyter notebook).
2) Be able to create a Python source code file using a text editor.
3) Be able to run the source code file using the Python environments.

Part One: Launch the ipython environment

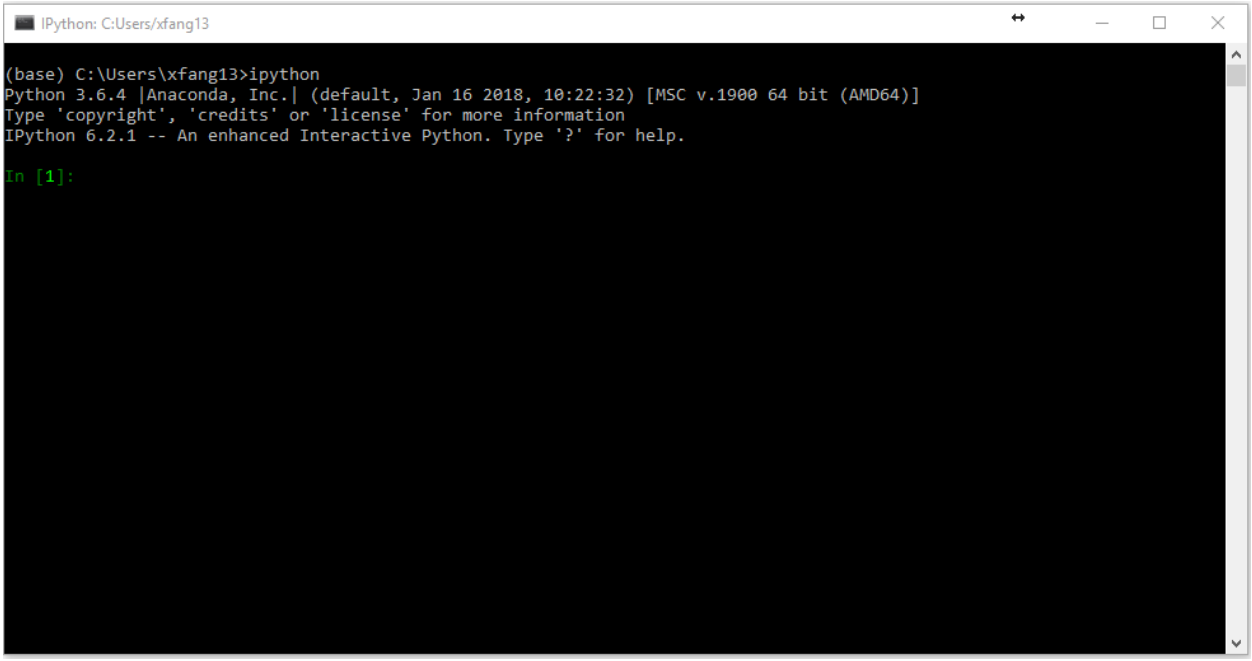
Step1:

- Click on the windows icon located at the bottom left corner of the screen.
- Select “Anaconda3 (64-bit)” and click on it.
- Select “Anaconda Prompt” and click on it.



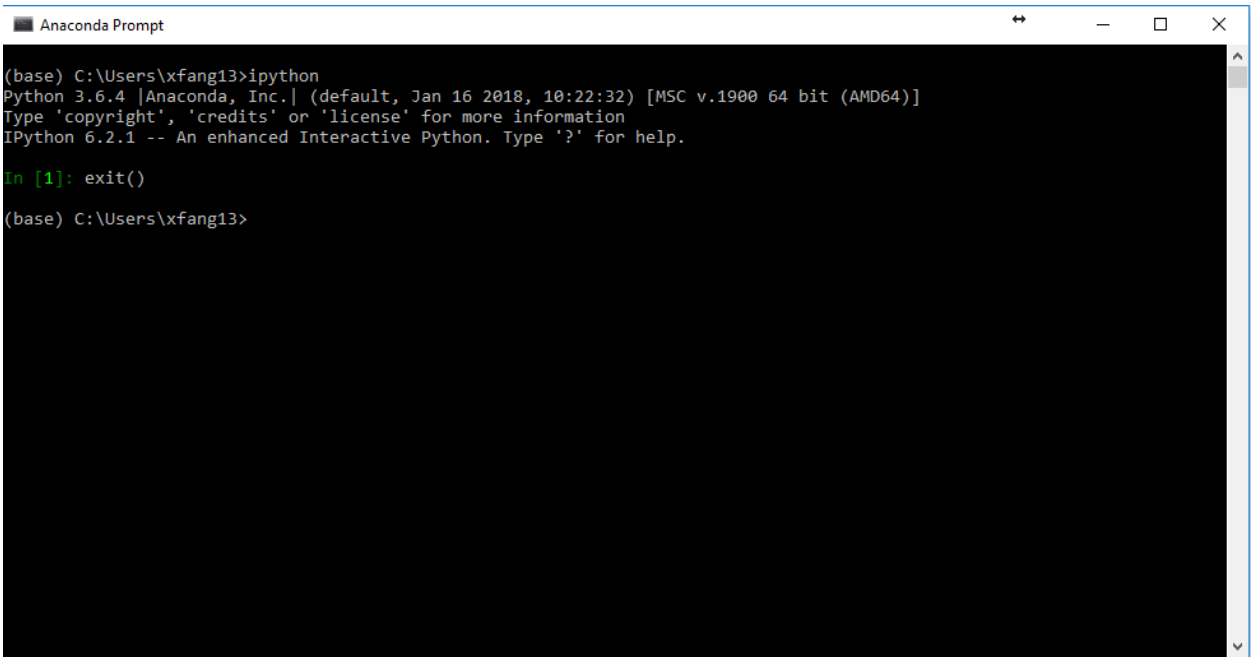
Step 2:

- This opens a system command-line terminal, where Python is ready.
- In the terminal, type “ipython” then press the “Enter” key.
- Now you have successfully launched the ipython environment.



Step 3:

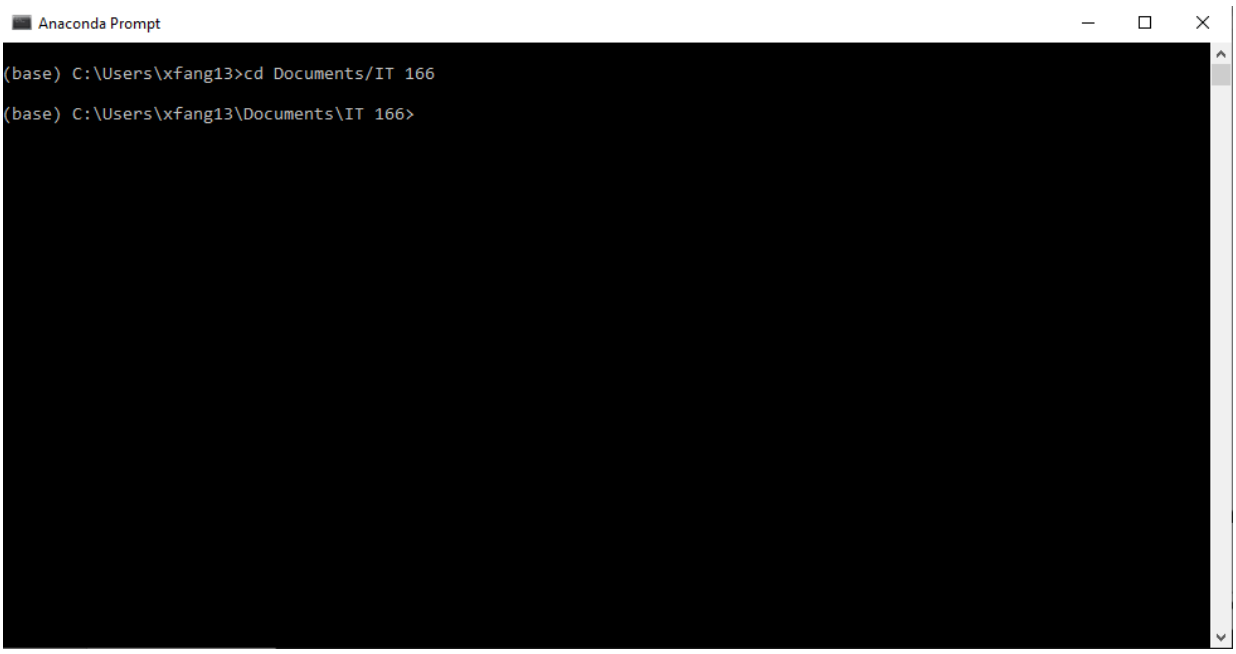
- To quit the environment, type “exit()” and then press “Enter”.
- This will bring you back to the system command-line terminal.



Part Two: Launch the jupyter notebook and run your first program

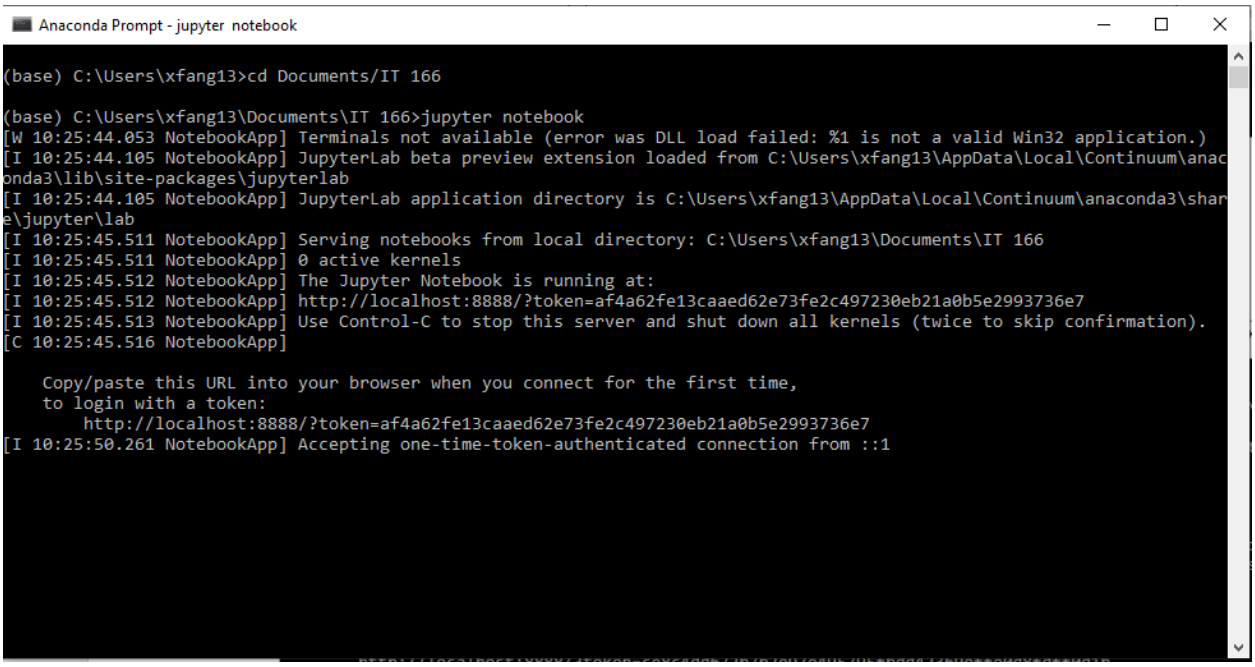
Step 1:

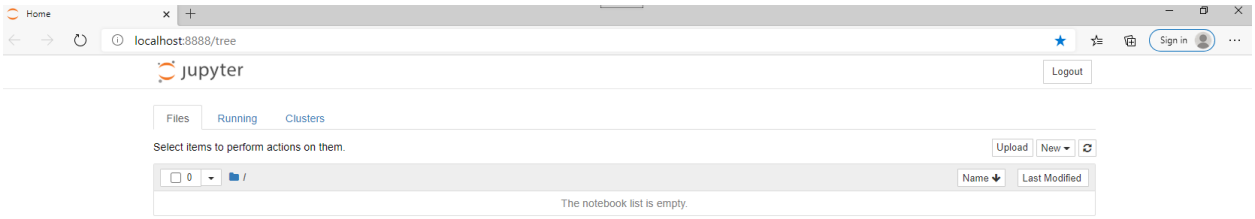
- Create a folder named “IT 166” under the Documents directory
- Navigate to the folder



Step 2:

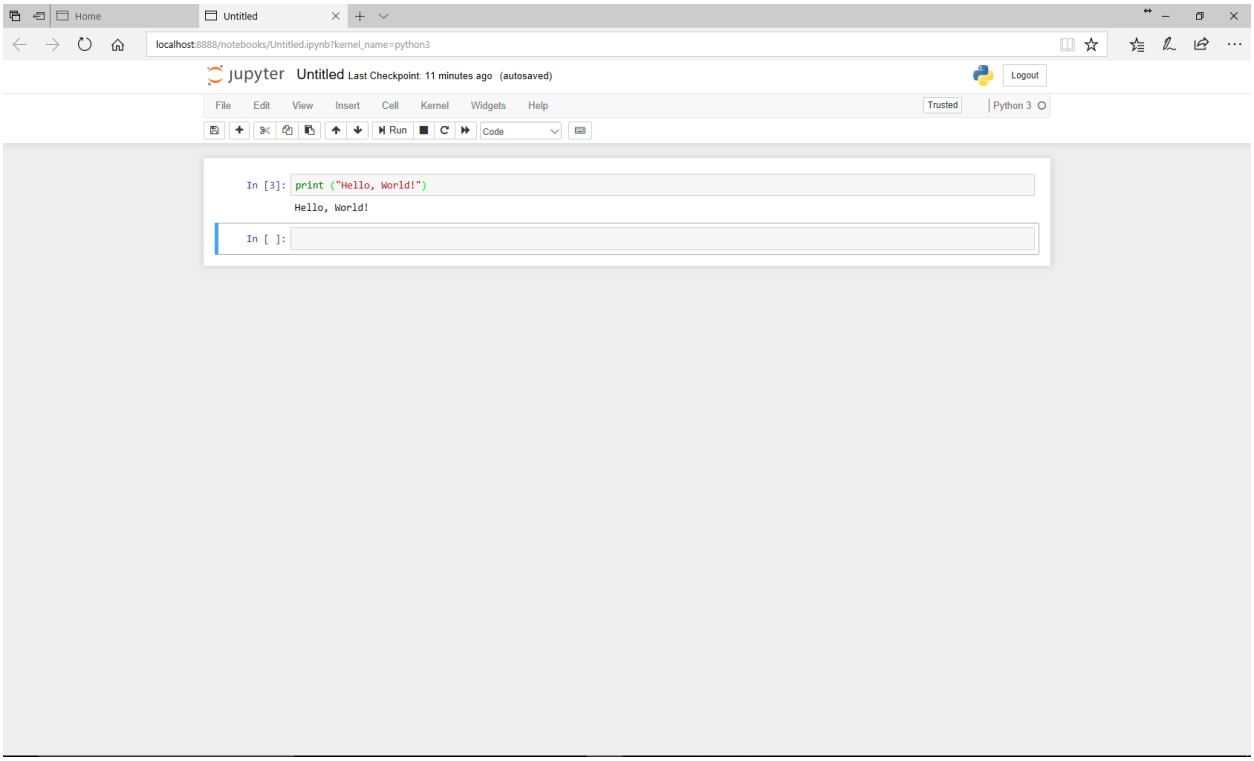
- Type “jupyter notebook” and then press “Enter”.
- This will launch the jupyter notebook using your Internet browser.





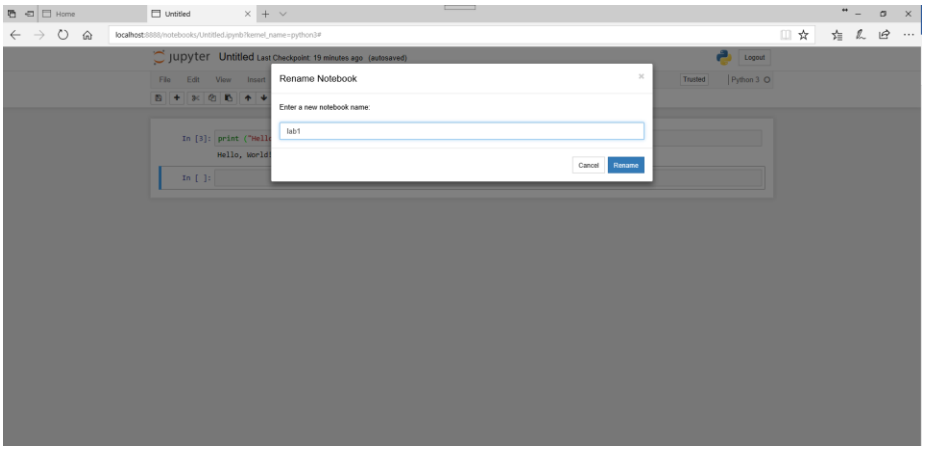
Step 3:

- In the jupyter notebook page, click on the “new” drop-down button, select “Python 3” and then click on it.
- This brings you to an untitled Python text editor, where you can write Python codes.
- Type “print (“Hello, World!”)” in the text editor and then click on the “Run” button.
- Congratulations! You just executed your first Python program.



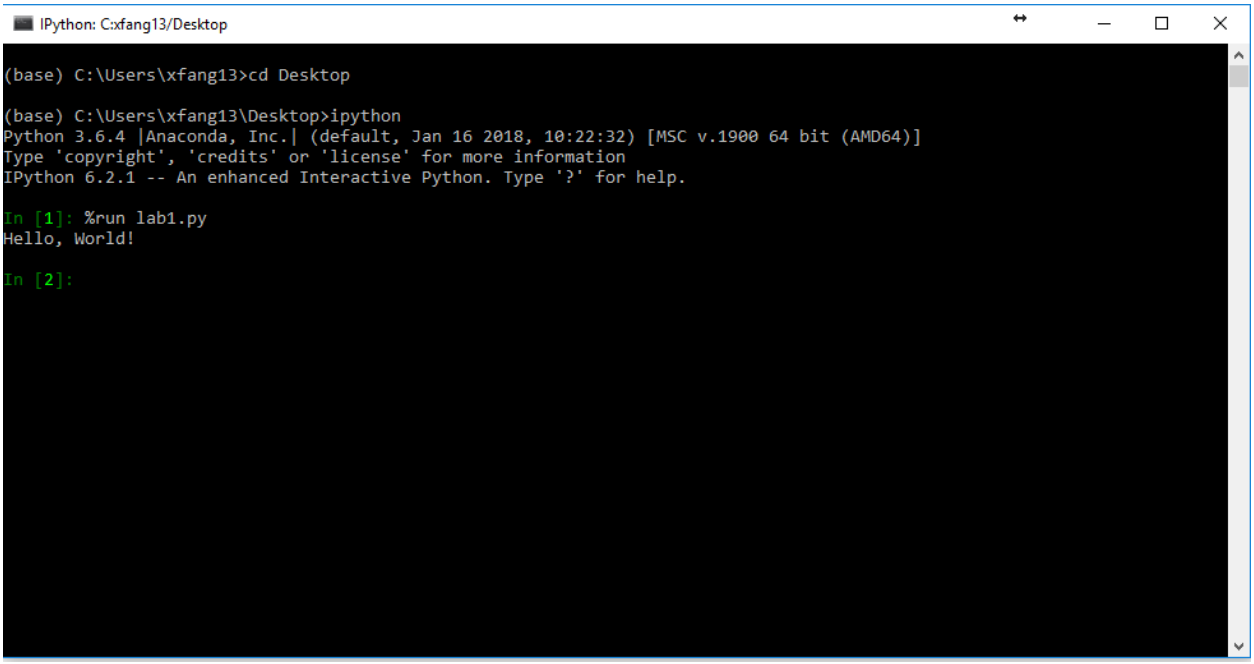
Step 4:

- Now, we want to give the program to a new name. To do this, click on “File”, select “Rename…”, and then click on it.
- Type “lab1” and then click on “Rename”.



Step 5:

- We can then export the program as a Python source code file.
- Click on “File”, select “Download as”, and then click on “Python (.py)”
- A dialog prompt shows up asking you to download the file.
- Download the file to your desktop.
- Launch another Anaconda prompt and navigate to the desktop directory and launch ipython.
- Type “%run lab1.py” to run the file under ipython.



Step 6:

- Open the lab1.py file using a text editor, preferably using Notepad++
- Comment out the first line of code by inserting a "#" mark at the beginning of the line. After this is done, the "Hello, World!" message will no longer displayed.
- Add a second line of code that displays your first name. For instance, if your first name is Alice, the code will display: "Hi, Alice!"
- Run the file again like you did in step 5.

Checkpoint:

- Now, in your IT 166 folder, there is a file named lab1.ipynb
- In addition, there is a lab1.py file on your desktop, which you just exported.
- Submit the lab1.py file on ReggieNet.