

Using IDLE

UCSB CS 8 - Summer Session B 2018

Download and Install Python 3

In the Computer Science Instructional Lab (CSIL) in Phelps 3525, the latest version of Python 3 is already installed. However, if you wish to download and install Python 3 into your computer, do the following:

- The latest version of Python 3 is here: <https://www.python.org/downloads/>
- This will also install IDLE.
- Do NOT download Python 2; we are using Python 3 (version 3.7).

Using IDLE

IDLE (Integrated Development and Learning Environment) is the program development tool of Python 3. You will be using IDLE to develop and run your programs. First, determine where IDLE is on your machine. It is usually saved under

Applications > Python 3.7 > IDLE

on MacOS. For Windows, look into **Start Menu**. If you cannot find it, use your computer's built-in "search" function. If you still cannot find it, attend office hours and bring your computer with you so we can help.

Go ahead and run IDLE. You should see something like this:

```
Python 3.7.0 (v3.7.0:1bf9cc5093
[Clang 6.0 (clang-600.0.57)] on
Type "copyright", "credits" or
>>> |
```

This screen that first comes up is the IDLE **shell**. It is also sometimes referred to as the interactive shell or the console. We use this window to see the output of our programs, and to sometimes input information to our programs. Here is an example of interaction

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 26 2018, 23:26:24)
[Clang 6.0 (clang-600.0.57)] on darwin
Type "copyright", "credits" or "license()" for more information.
>>> x = 2**3
>>> y = 3**2
>>> x + y
17
>>>
```

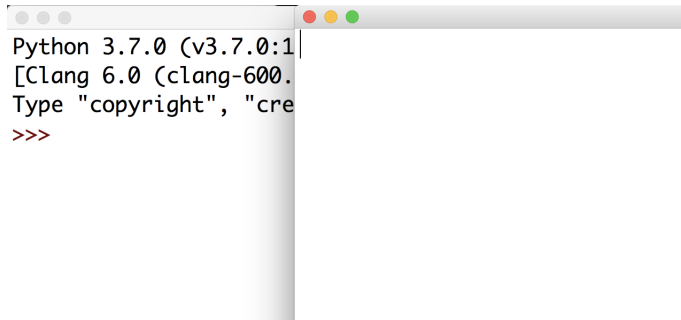
When we close the shell window, we will lose the program. In order to use it later, we need to save. The best way to do this is to write the program in a separate file.

Creating a .py File

All programs written in Python have the .py extension. To open up a blank .py file, go to

```
File > New File
```

in IDLE. An empty window will come up:

A screenshot of a Python IDLE shell window. The window title bar shows three colored dots (red, yellow, green) on the left and three colored dots (red, yellow, green) on the right. The text inside the window reads: Python 3.7.0 (v3.7.0:1 |, [Clang 6.0 (clang-600., Type "copyright", "cre, and >>> on a new line.

Write your code in this screen. You can save your program by going to

```
File > Save As
```

Make sure to save it.

Running a .py File

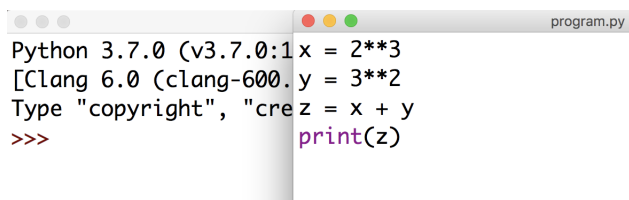
To run your code, first make sure it is saved. Then, go to

```
Run > Run Module
```

If your code outputs numerical or string results, the output will be shown in the IDLE shell (the first screen that came up when we opened IDLE).

An Example .py File

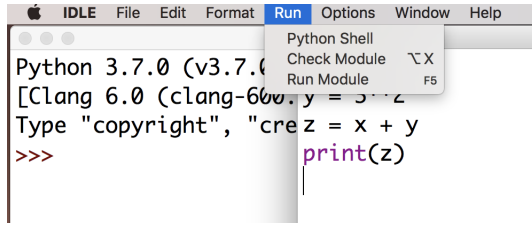
The following program which is saved as `prog.py` computes $2^3 + 3^2$, and prints the result in the IDLE shell. The program is very simple is typed directly into the window:

A screenshot of a Python IDLE shell window titled "program.py". The window title bar shows three colored dots (red, yellow, green) on the left and three colored dots (red, yellow, green) on the right. The text inside the window reads: Python 3.7.0 (v3.7.0:1 | x = 2**3, [Clang 6.0 (clang-600. | y = 3**2, Type "copyright", "cre | z = x + y, and print(z) on a new line. The output >>> is shown on a new line.

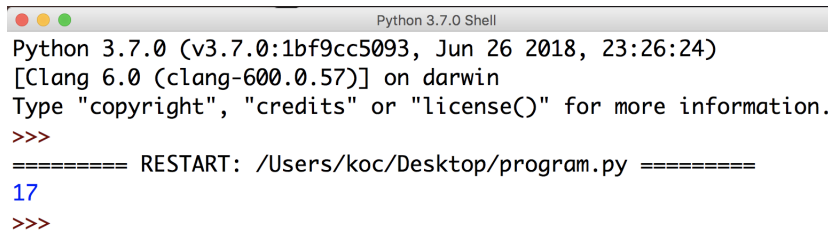
When we run the program using

```
Run > Run Module
```

as see below:



The result of the program comes up inside the IDLE shell, as follows:



This is correct since $2^3 + 3^2 = 8 + 9 = 17$.

Submitting a Programming Assignment

Every one of programming assignments in this course will be a program similar to `prog.py`, and it is submitted using **Dropbox**. Simply click on the Dropbox link for the particular programming assignment, and locate and submit your program file by following the instructions given by Dropbox. If you have never used Dropbox before, you will have to create a (free) account on it.

Test your program as much as possible to make sure it works as required, and once you are certain, submit it using Dropbox. You can submit as many times as you want, but make sure that the **LAST VERSION** you submitted works correctly, since this is the one we will grade.