CSIT110 / CSIT810

Python

Lecture 1

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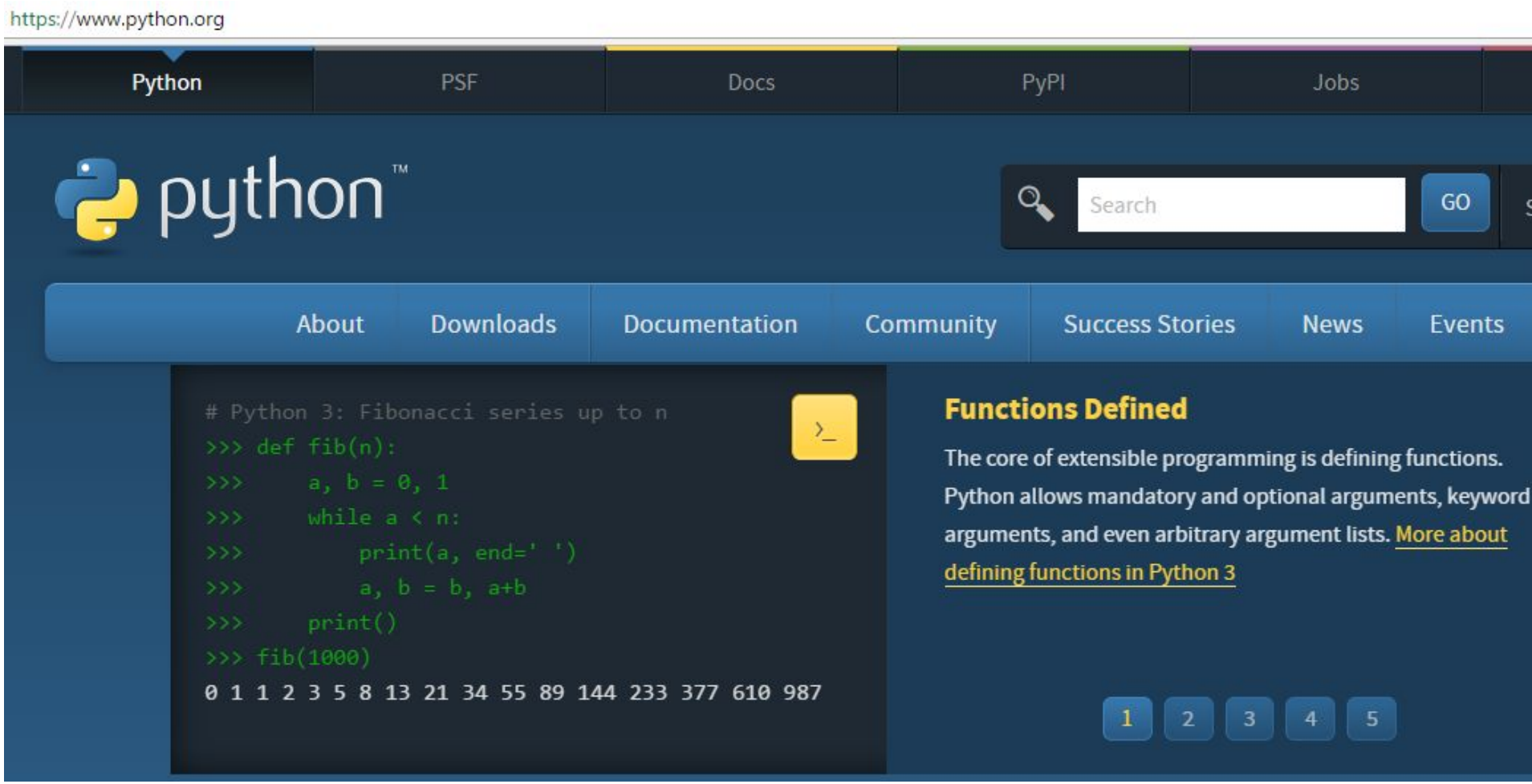
Programming languages

1951: Assembly Language
1957: FORTRAN
1958: LISP
1959: COBOL
1964: BASIC
1970: Pascal
1972: C
1972: Prolog
1978: SQL
1980: C++
1984: MATLAB
1987: Perl
1988: Mathematica
1991: Python
1991: Visual Basic
1995: Java
1995: JavaScript
1995: PHP
2001: C#

Python

Python software foundation website: http://www.python.org



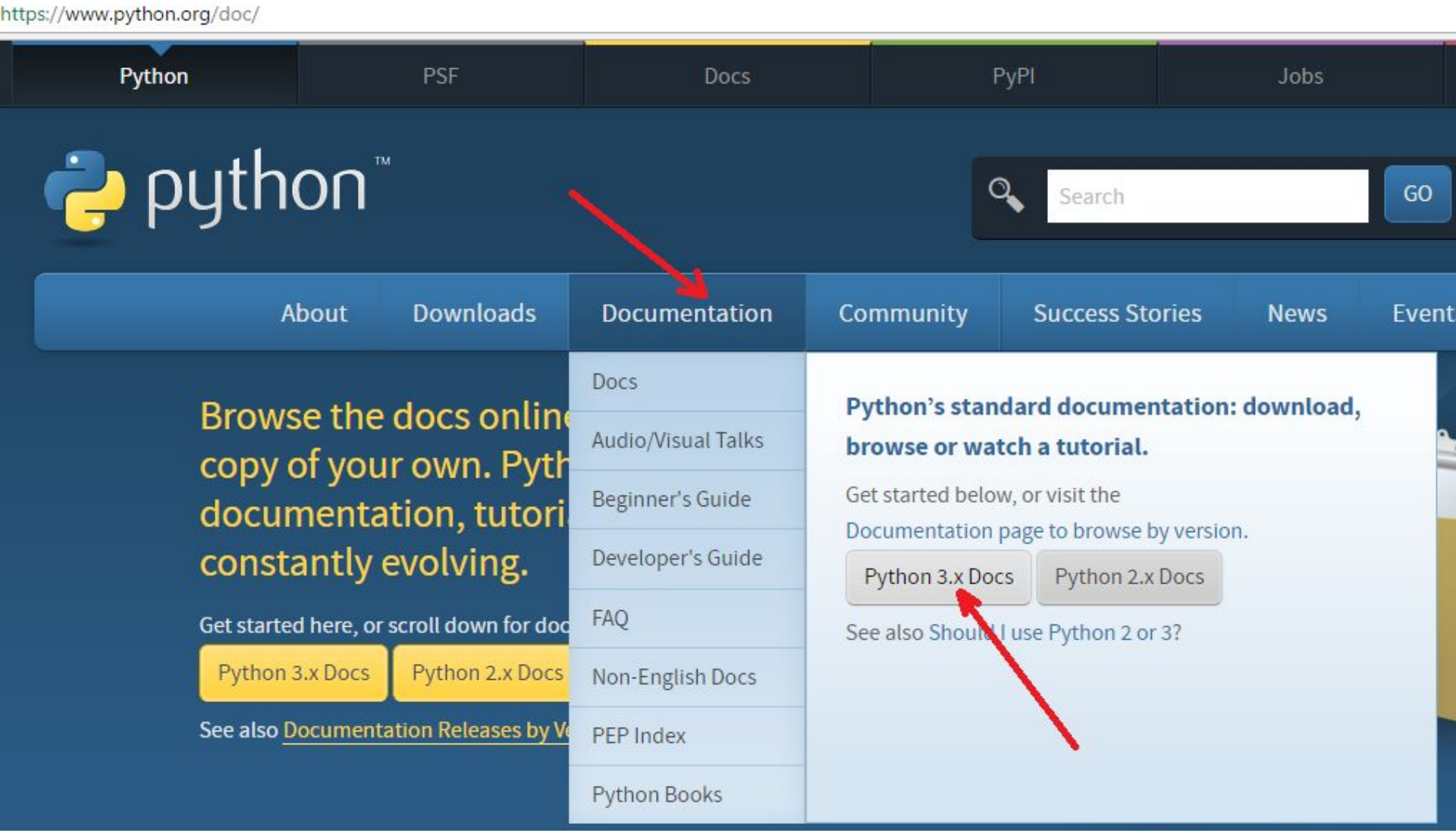
Python

Python software foundation website: http://www.python.org

Useful resources available on this website:

- Getting started
- Tutorial
- Documentation
- Installation guide
- ...

Python - documentation



Python - download

We are going to use Python Version 3 in this course.

https://www.python.org/downloads/

Looking for a specific release?

Python releases by version number:

Release version	Release date		Click for more
Python 3.4.5	2016-06-27	Download	Release Notes
Python 3.5.2	2016-06-27	Download	Release Notes

Python installation for Windows

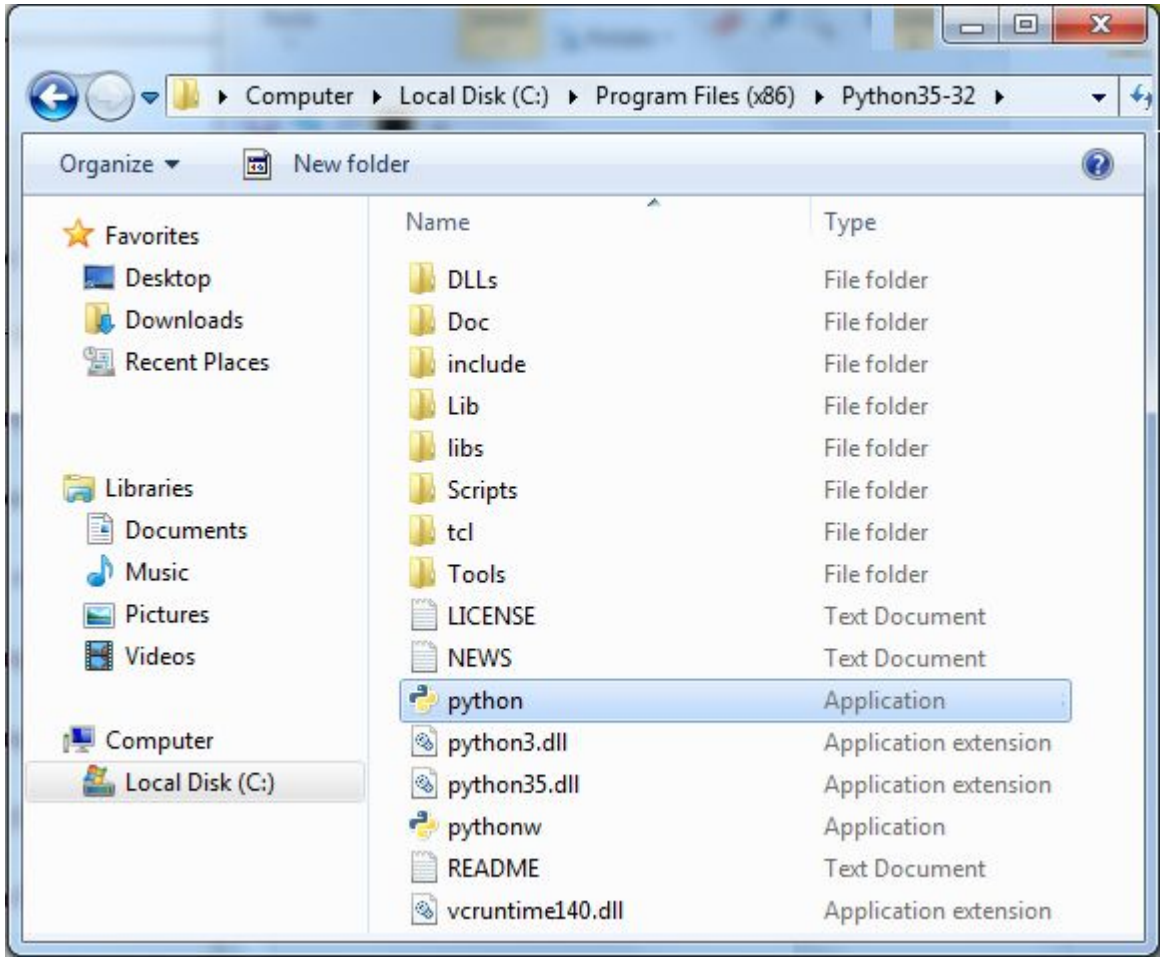
Python - installation - Windows

Here are some screenshots when I installed Python 3.5 on my **Windows computer**.

*First, I downloaded **Windows x86 executable installer** from Python webpage*

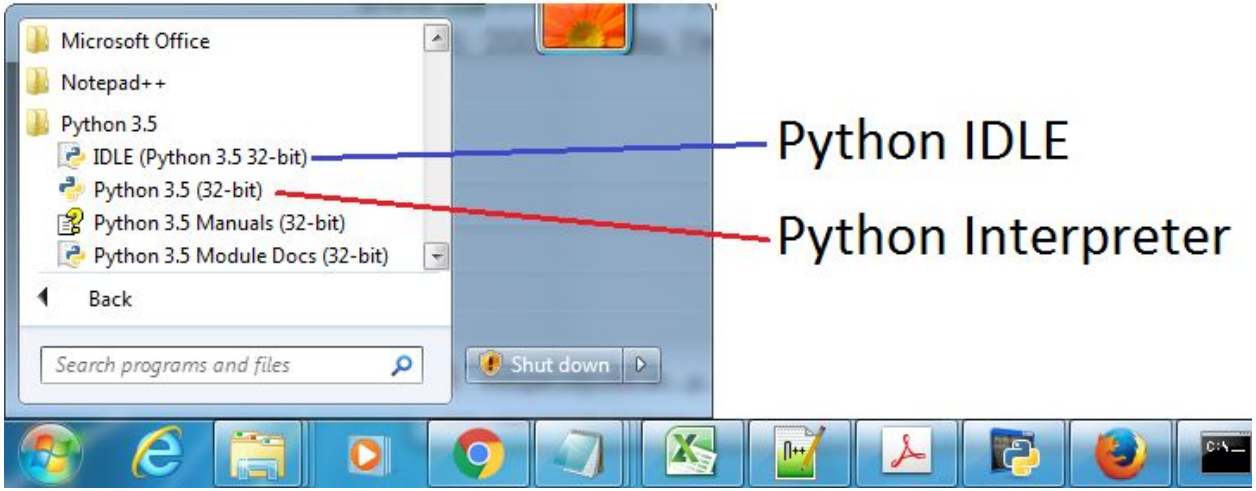
Python - installation - Windows

After install Python, I can see the Python directory on my computer



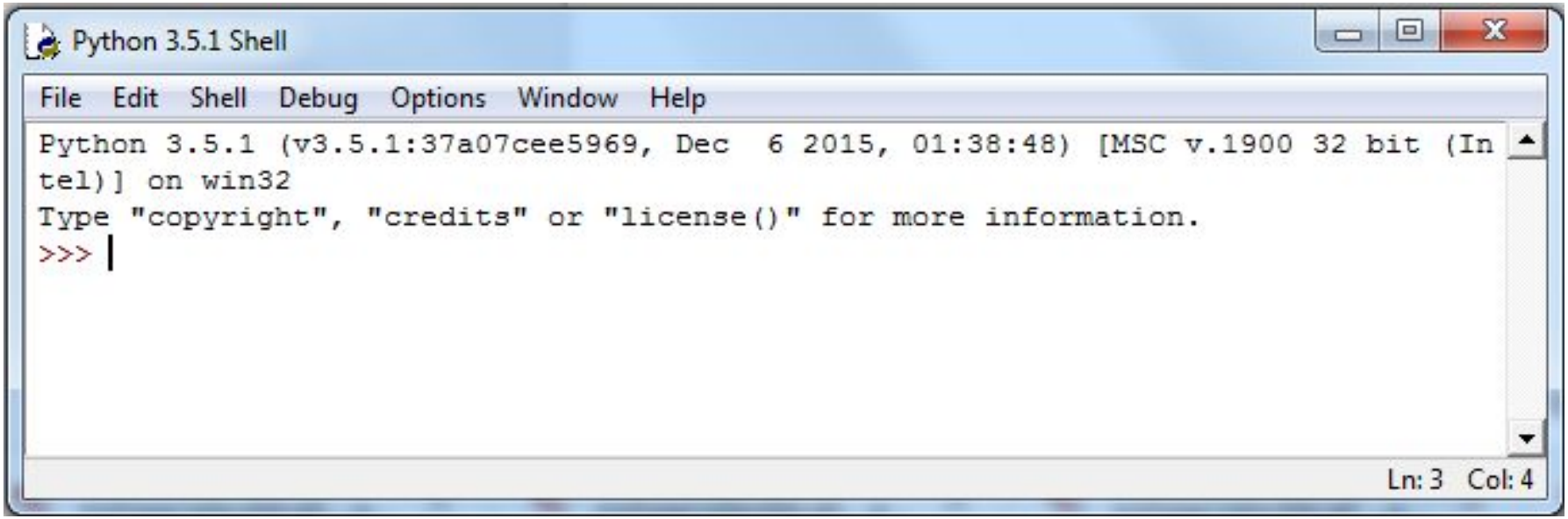
Python - installation - Windows

On Start Menu, I can see there are two icons for ***Python Interpreter*** *and* ***Python IDLE****.*



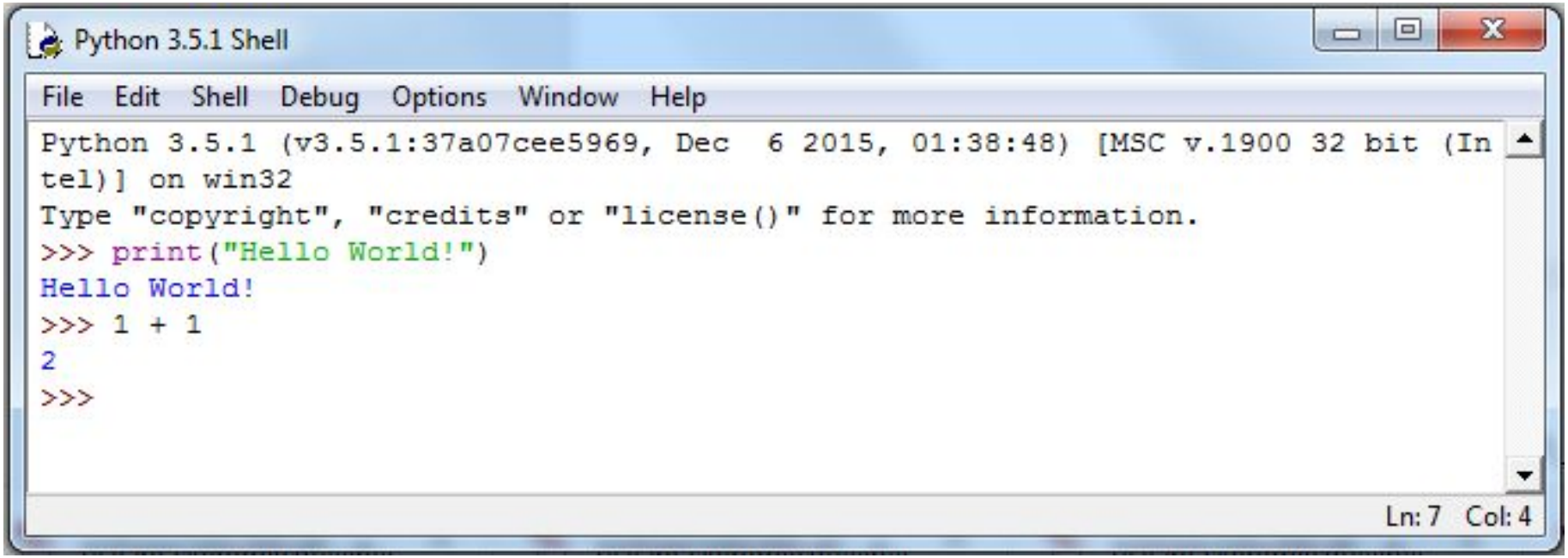
Python - installation - Windows

*In Start Menu, click on the **Python IDLE** menu,*
a new window will appear



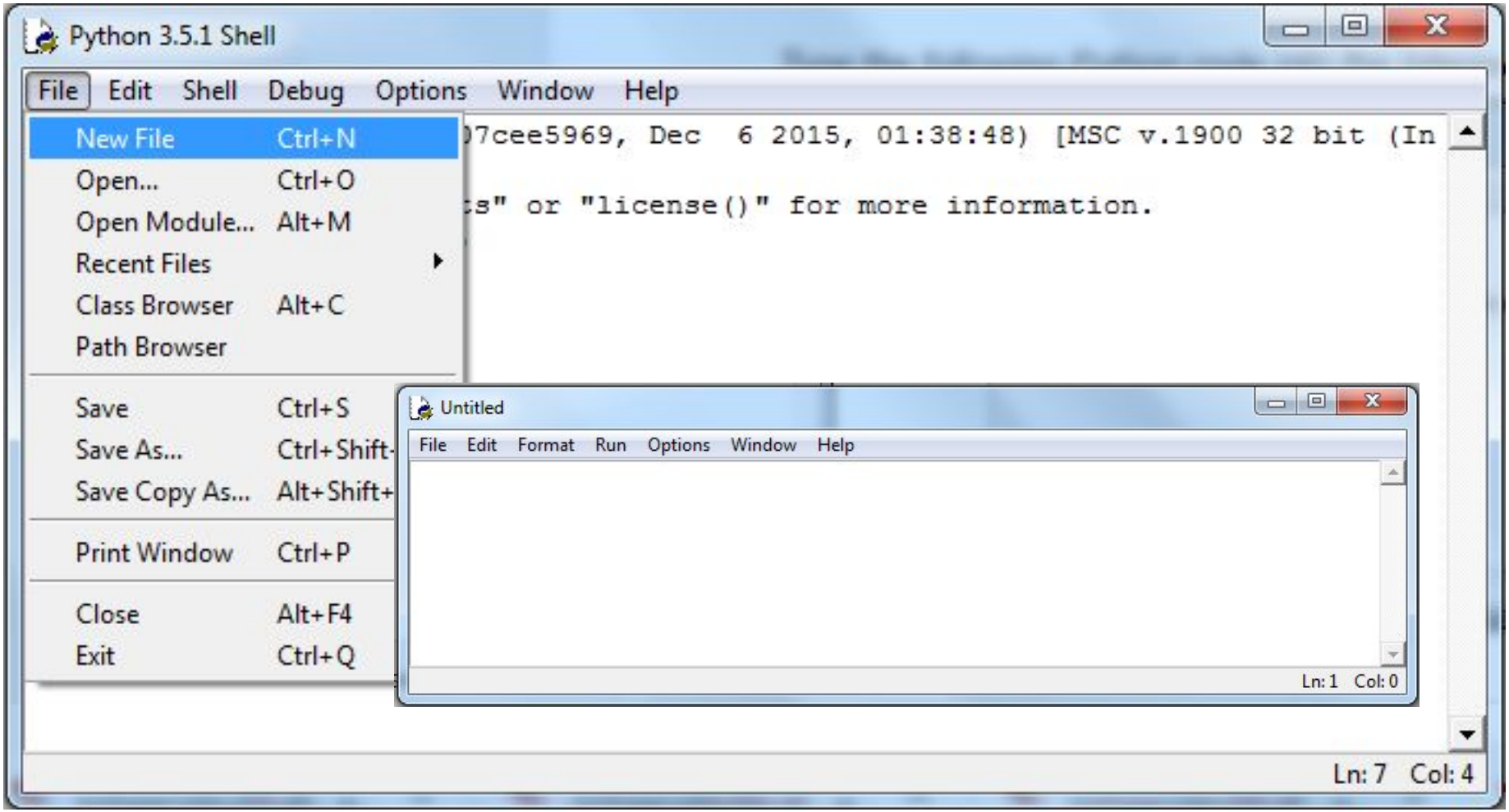
Python - installation - Windows

*Type the following Python code into the **IDLE** and see that it works*



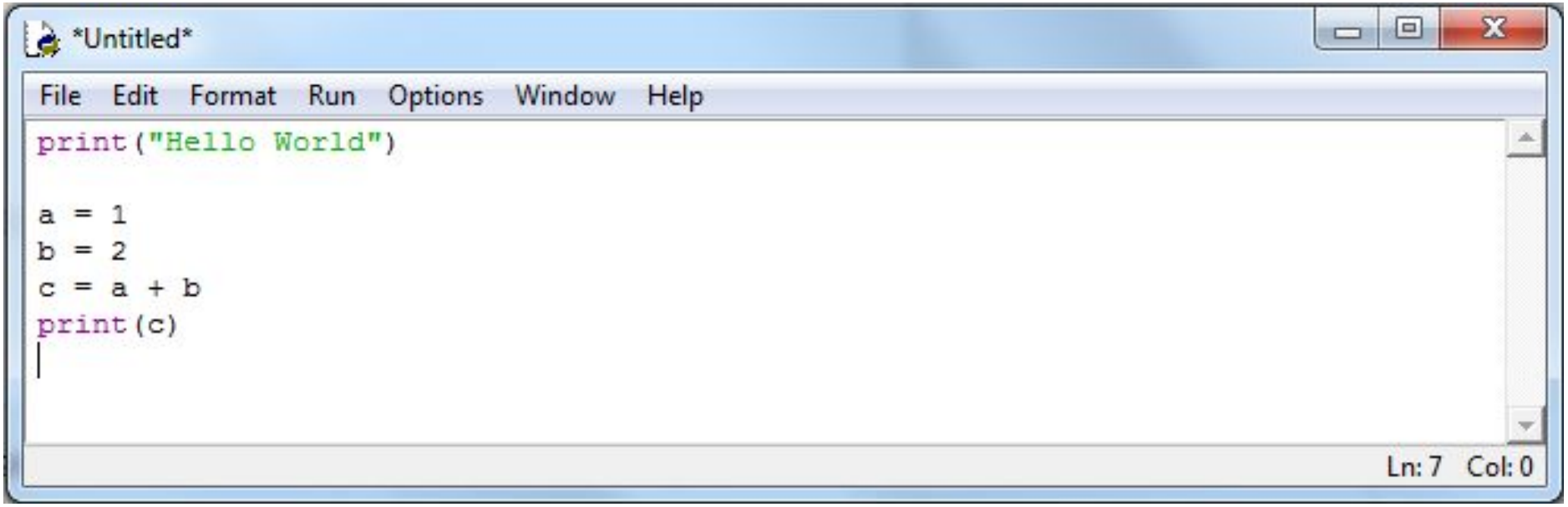
Python - installation - Windows

Select the menu: File > New File, a new window will appear



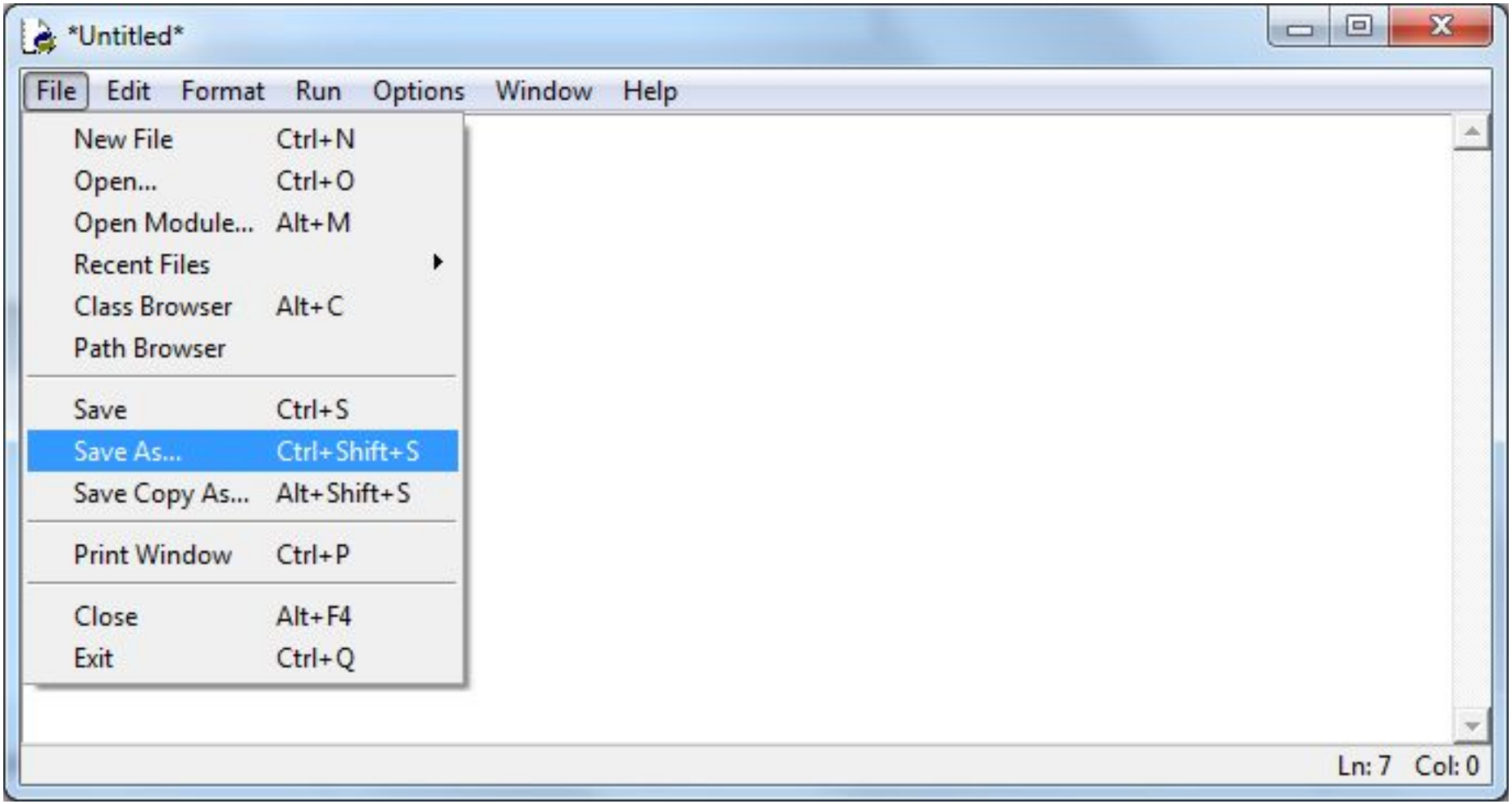
Python - installation - Windows

Type the following Python code into the new window



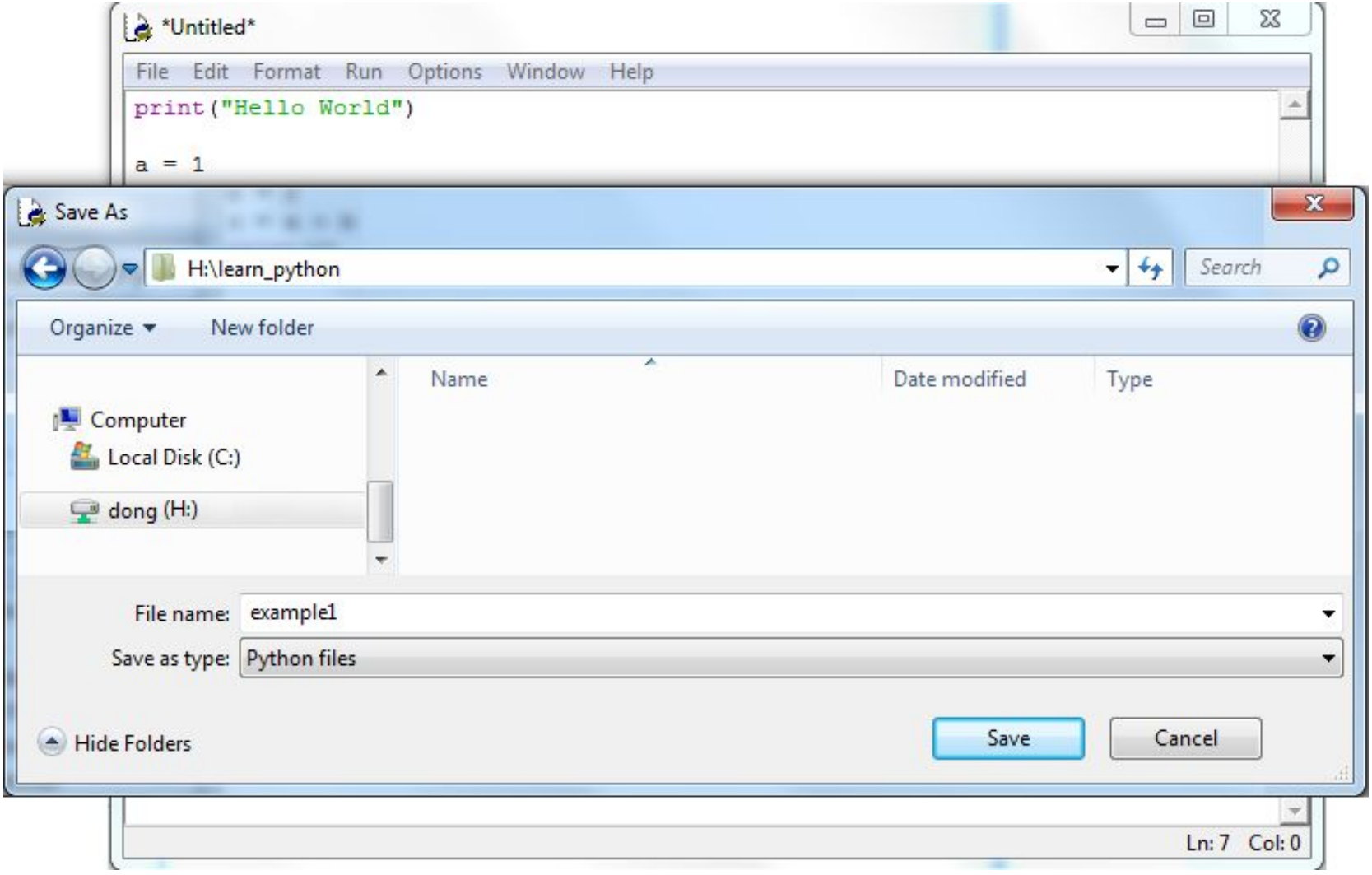
Python - installation - Windows

Select the menu: File > Save As…



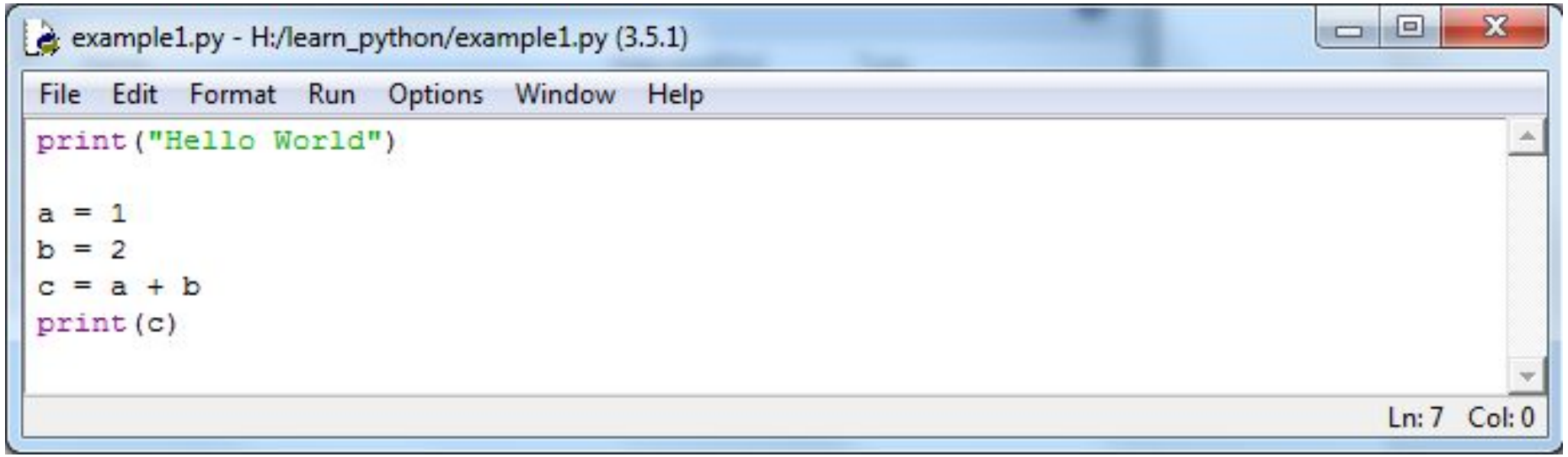
Python - installation - Windows

*I saved the code into a new file called **example1.py** on a directory called **learn_python** on my H: drive*



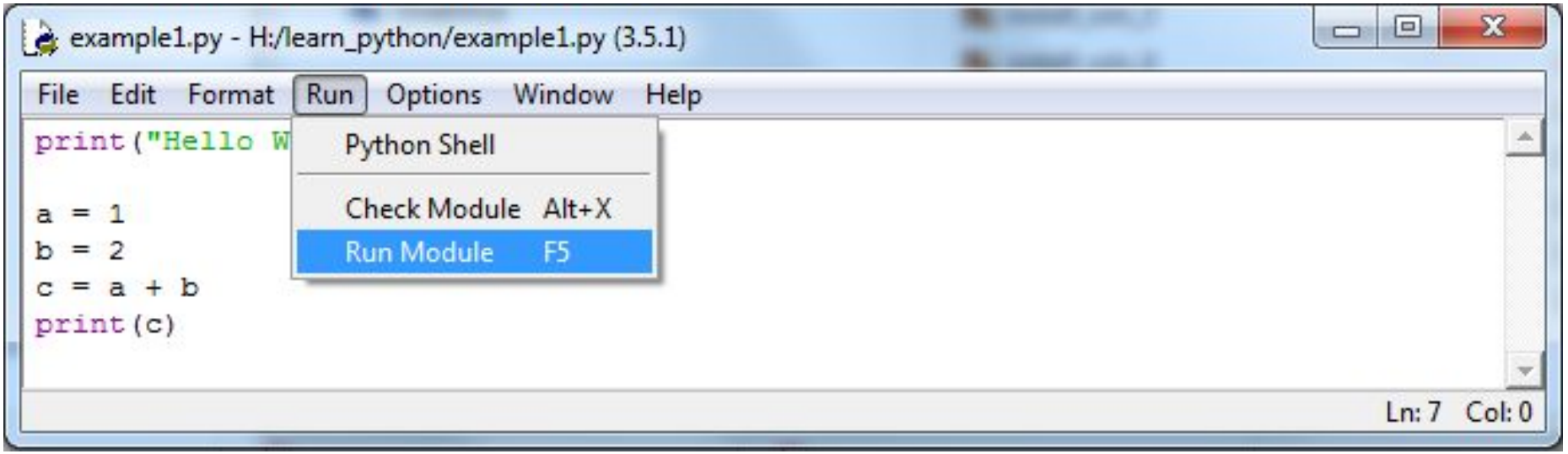
Python - installation - Windows

I can see now that my code has been saved to the file ***example1.py***



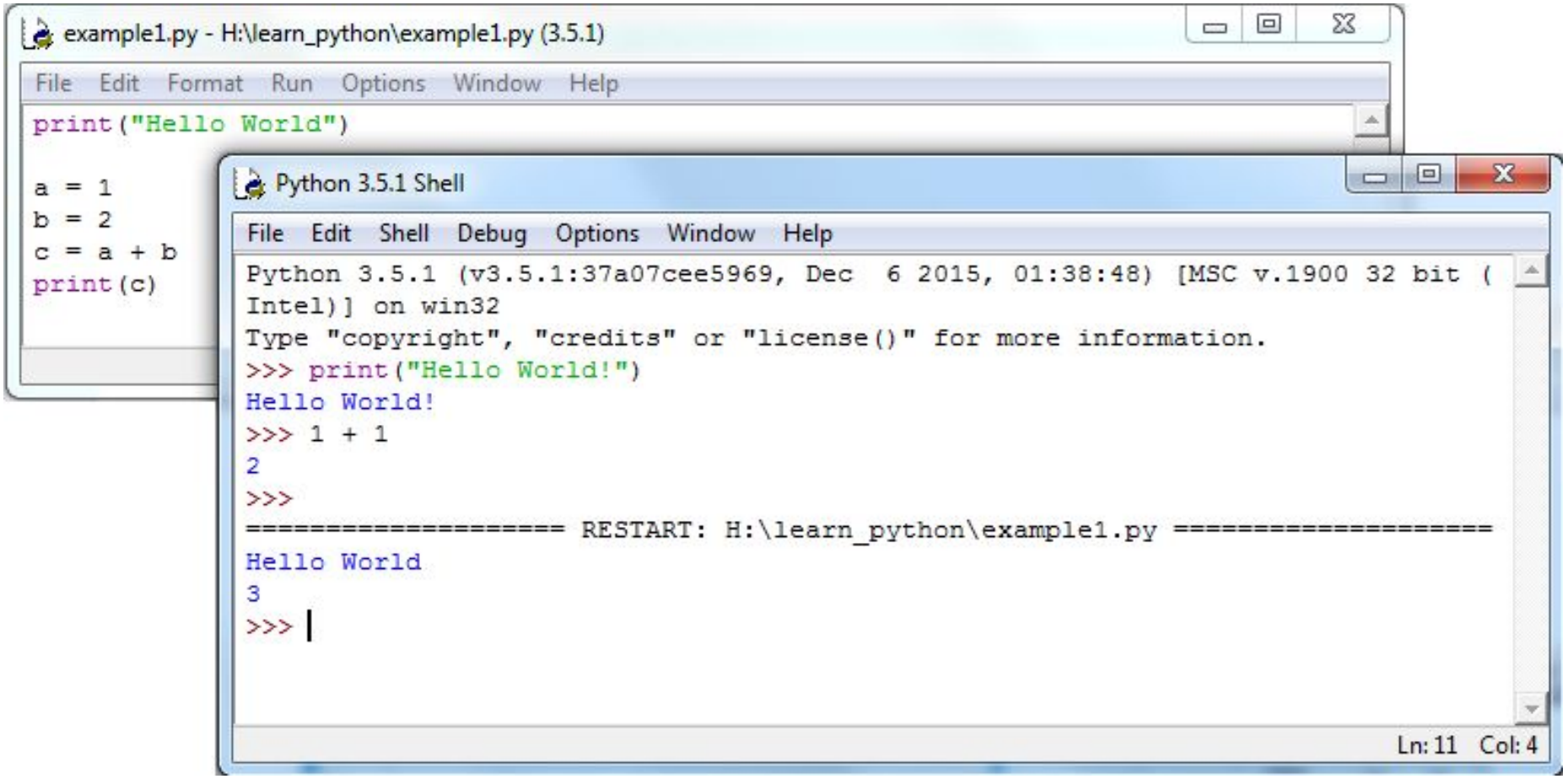
Python - installation - Windows

Select the menu: Run > Run Module



Python - installation - Windows

*I can see that my code in the file **example1.py** works*



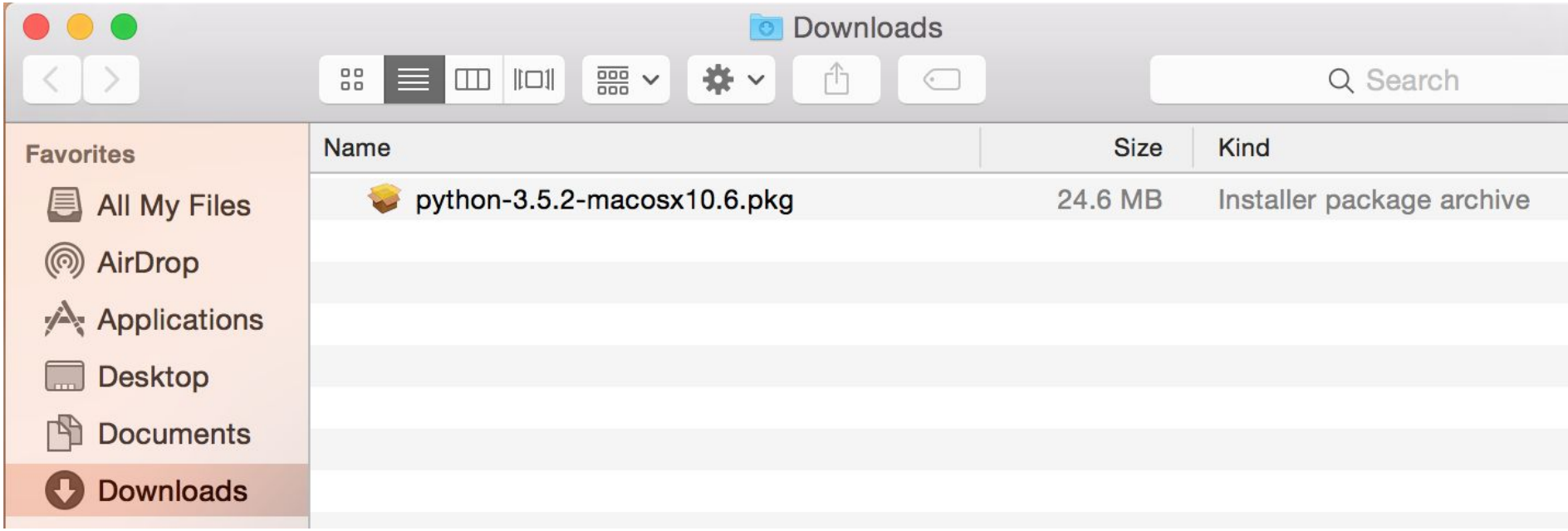
Python installation for Mac

Python - installation - Mac

Here are some screenshots when I installed Python 3.5 on my **Mac**

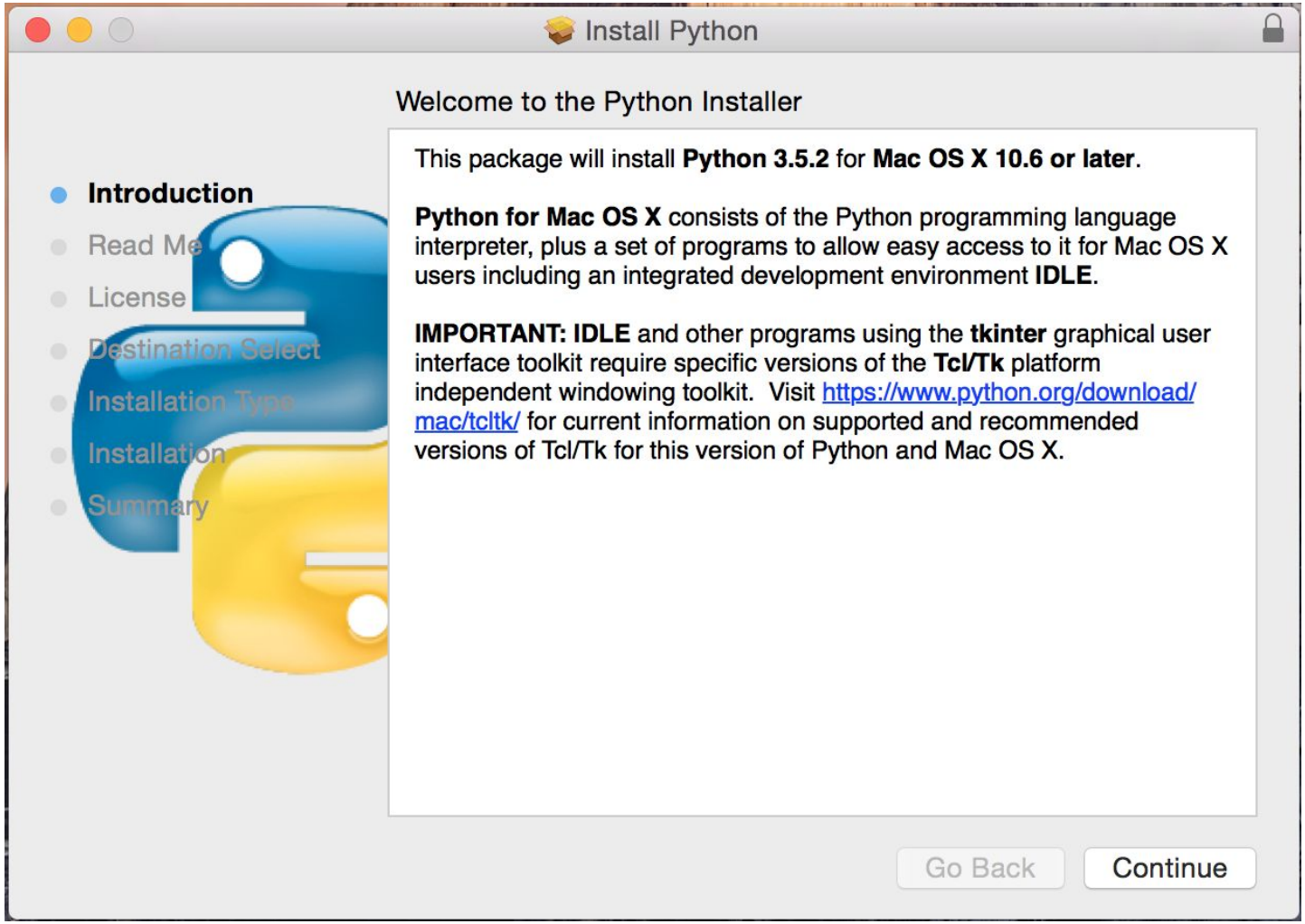
Python - installation - Mac

I can see that the python package is downloaded

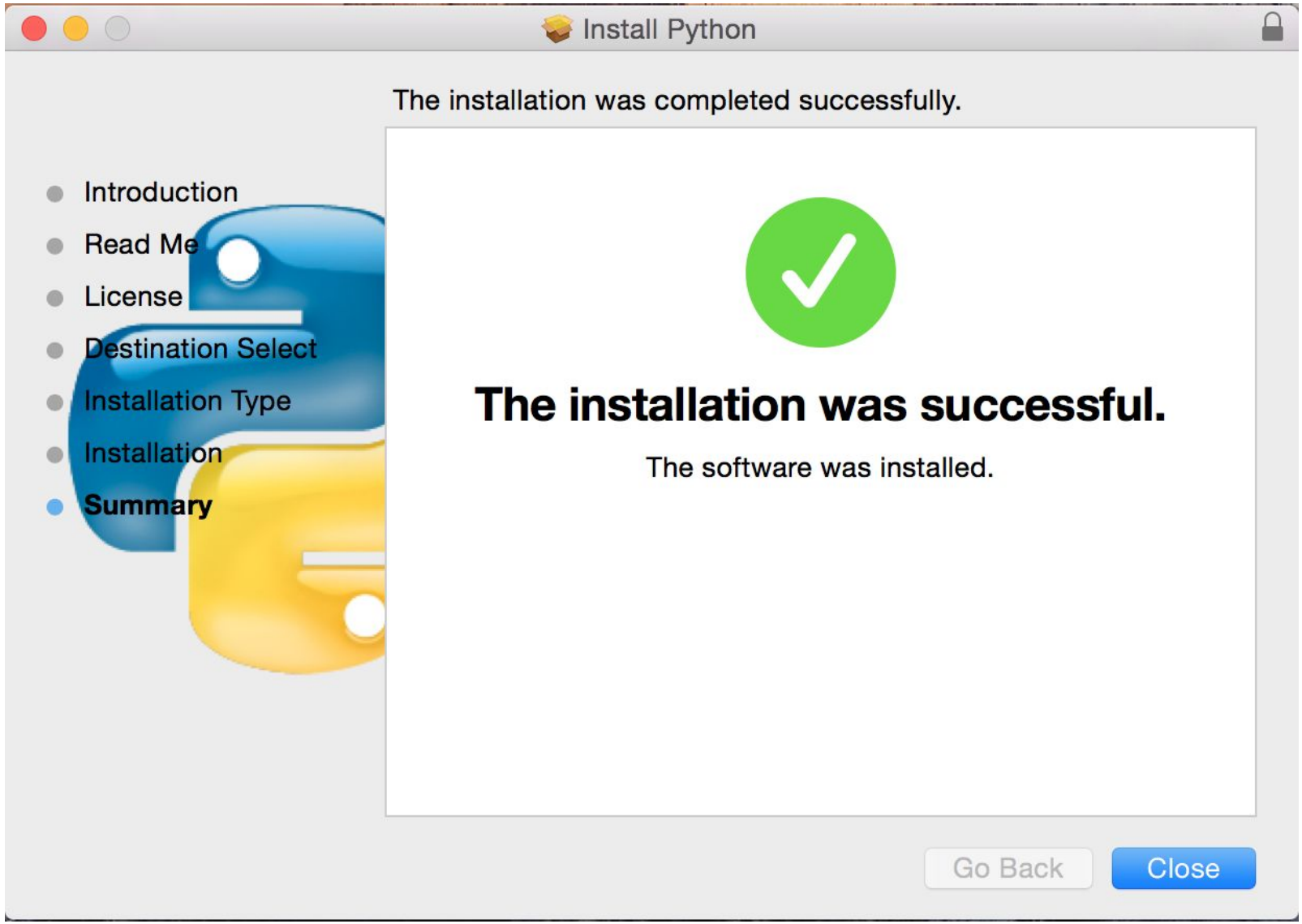


Python - installation - Mac

Double click on python package to run and follow the instructions



Python - installation - Mac

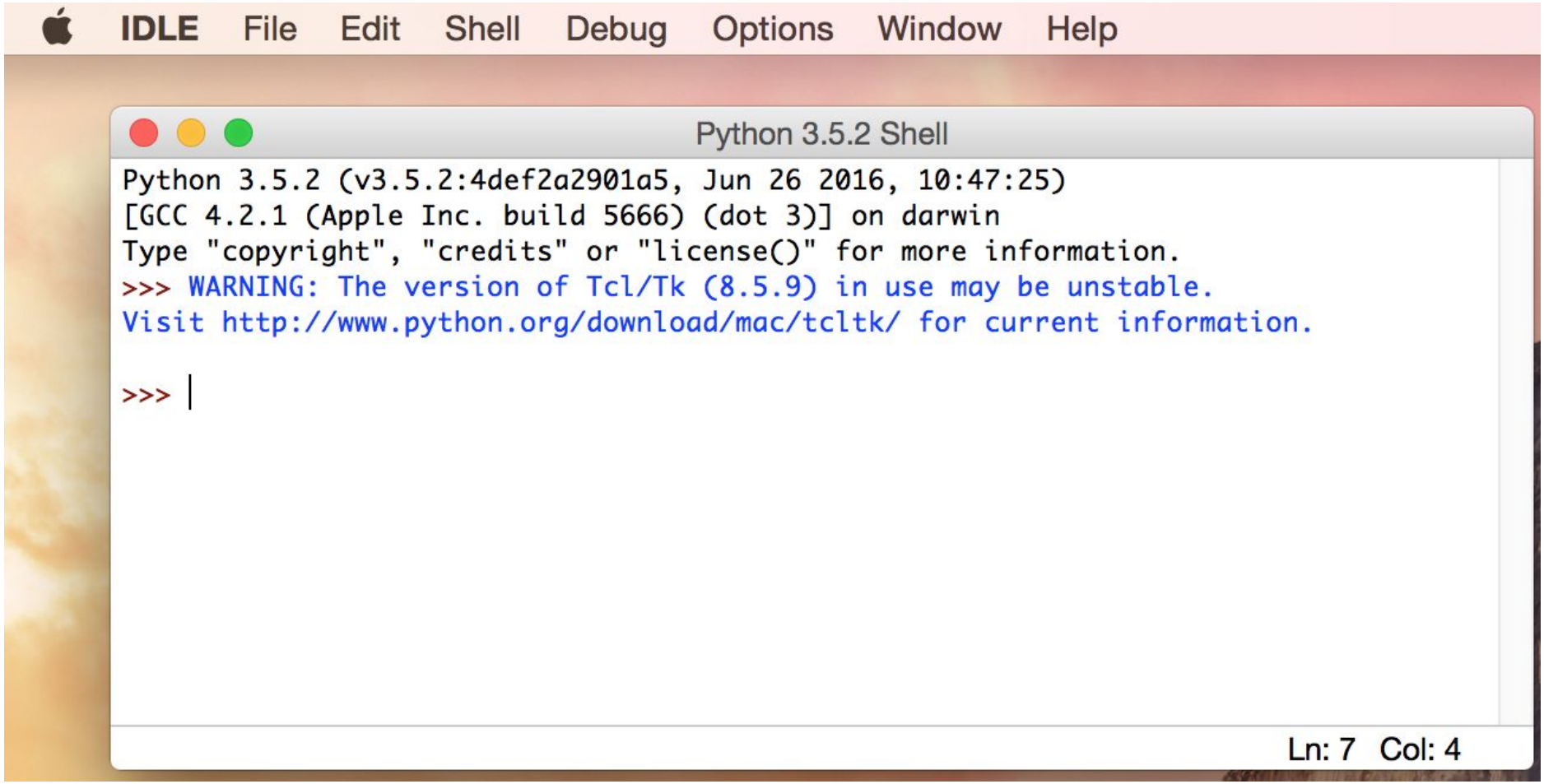


Python - installation - Mac

On the Launchpad, I can see the **IDLE**

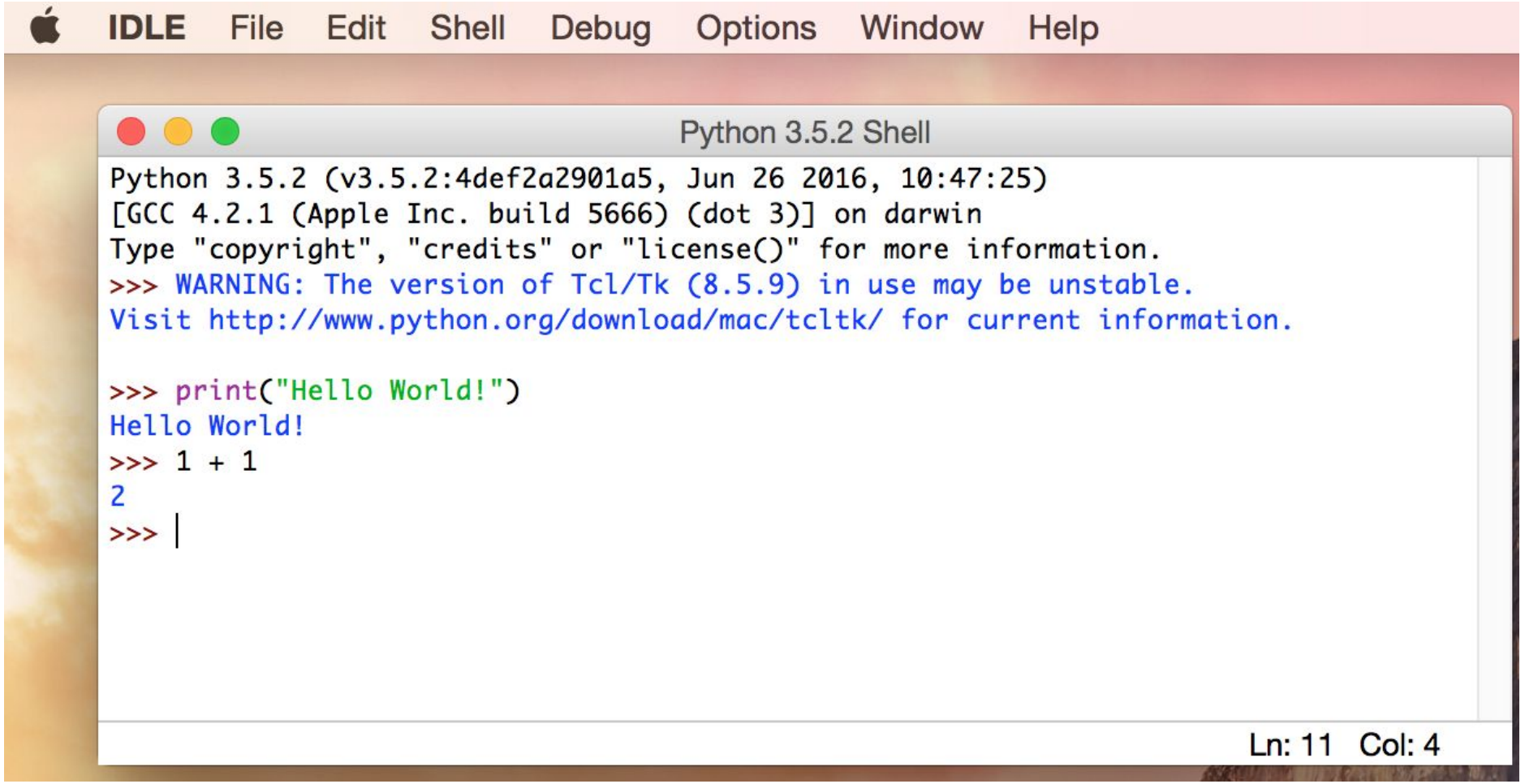
Python - installation - Mac

Run the **IDLE**



Python - installation - Mac

Run the **IDLE**, type in some python code



Python - installation - Mac

From here, we can use the **IDLE** to create a new file, to save the file, as exactly as before, as shown in Windows example

Online resource

There are many online tutorials on Python

Try Google search or Youtube search on “python tutorial”

Here are some useful links:

http://www.python.org/about/gettingstarted

http://docs.python.org/3/

http://wiki.python.org/moin/BeginnersGuide/Programmers

http://www.tutorialspoint.com/python3

Online IDE

What if I don't have computer/laptop at home?

What if my computer/laptop cannot install Python?

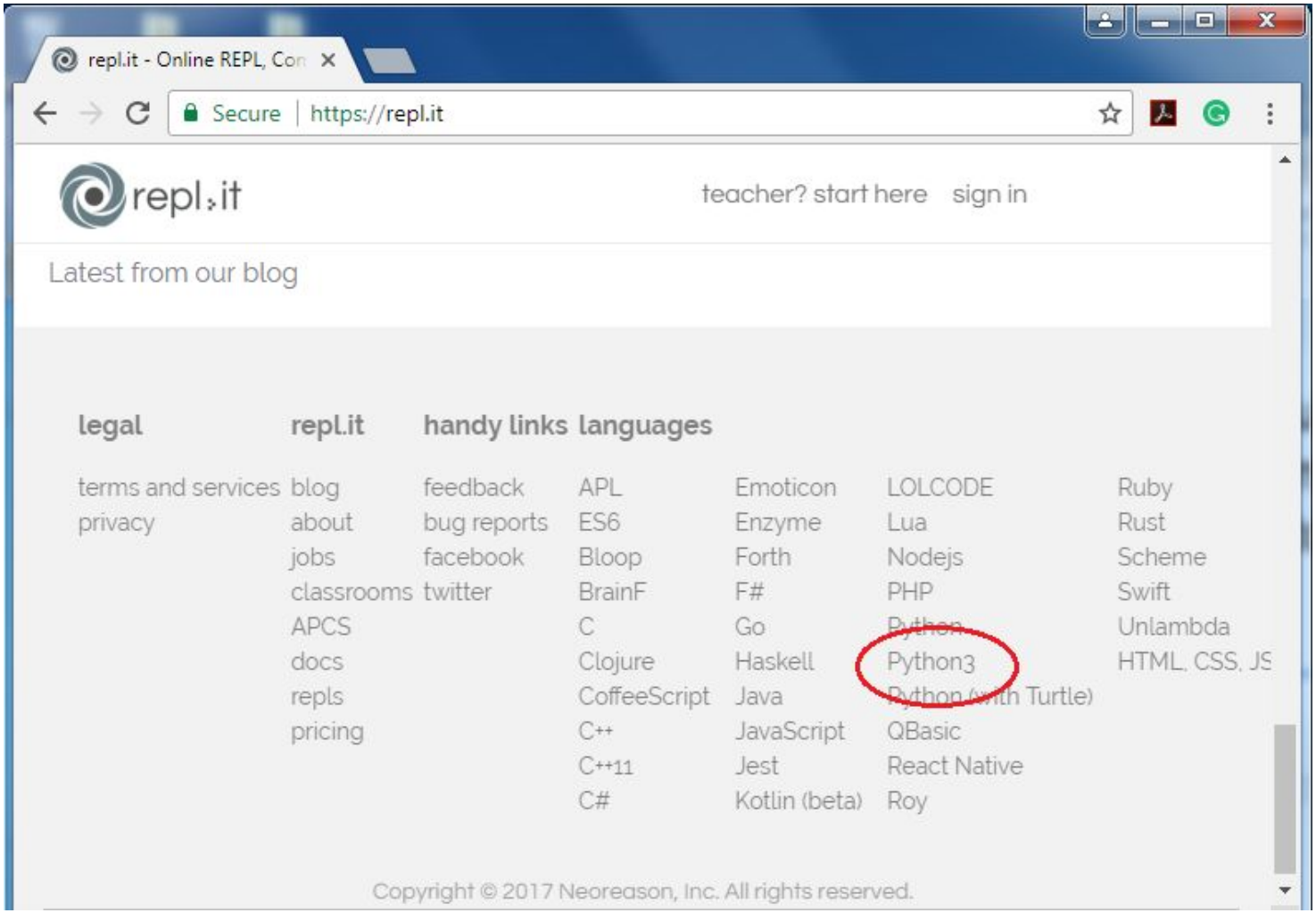
Use online Python IDEs

- **http://repl.it**
- http://pythontutor.com
- http://techmums.co/python.html
- http://www.tutorialspoint.com

Online IDE

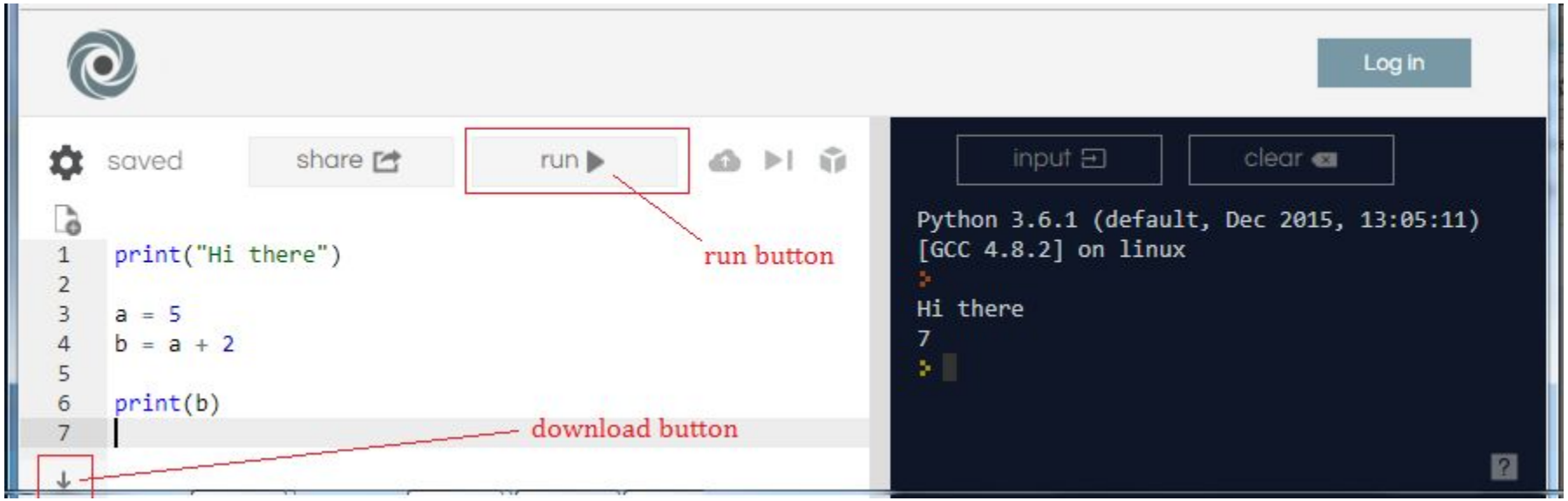
Run Python online on http://repl.it

there is a link at the end of the webpage



Online IDE

Run Python online on http://repl.it



Finally,

- good programming skill - needs a lot of practice!
- so install **Python** and start coding as soon as possible