

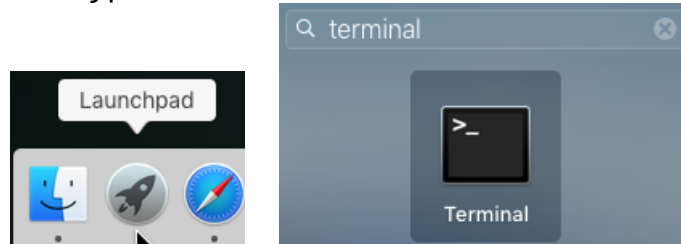
DOWNLOAD AND INSTALLATION

Download Anaconda 4.4.0 with Python Version 3.6 (64-bit) from <https://www.continuum.io/downloads> and install it on your laptop. When the installation is finished, we can run Python programs in two modes: Interactive mode and Scrip mode.

INTERACTIVE MODE

Method 1. Terminal

Click **Launchpad** and type in **terminal** and hit **<enter>** to run the Terminal.



In the terminal window, type in **python** and hit **<enter>** to enter the python programming environment.

```
ted — python — 77x14
Last login: Tue Sep 13 14:19:50 on ttys000
teds-iMac:~ ted$ python
Python 3.5.2 |Anaconda 4.1.1 (x86_64)| (default, Jul 2 2016, 17:52:12)
[GCC 4.2.1 Compatible Apple LLVM 4.2 (clang-425.0.28)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> █
```

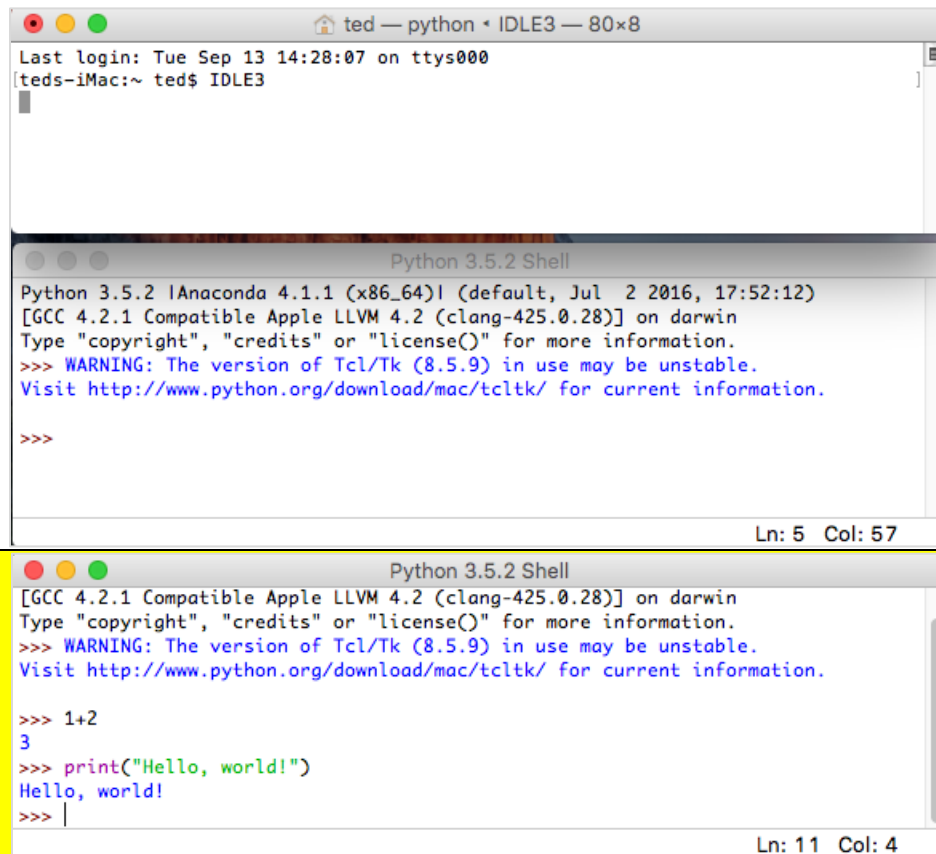
Type in a few python commands and you will see the output results immediately.

```
ted — python — 77x14
Last login: Tue Sep 13 14:19:50 on ttys000
teds-iMac:~ ted$ python
Python 3.5.2 |Anaconda 4.1.1 (x86_64)| (default, Jul 2 2016, 17:52:12)
[GCC 4.2.1 Compatible Apple LLVM 4.2 (clang-425.0.28)] on darwin
Type "help", "copyright", "credits" or "license" for more information.
>>> 1+2
3
>>> print("Hello world!")
Hello world!
>>> █
```

Figure 1

Method 2. IDLE

The second way to enter the python programming environment is to type in **IDLE3** in the terminal and hit **<enter>**.



```
ted — python • IDLE3 — 80x8
Last login: Tue Sep 13 14:28:07 on ttys000
teds-iMac:~ ted$ IDLE3

Python 3.5.2 Shell
Python 3.5.2 |Anaconda 4.1.1 (x86_64)| (default, Jul 2 2016, 17:52:12)
[GCC 4.2.1 Compatible Apple LLVM 4.2 (clang-425.0.28)] on darwin
Type "copyright", "credits" or "license()" for more information.
>>> WARNING: The version of Tcl/Tk (8.5.9) in use may be unstable.
Visit http://www.python.org/download/mac/tcltk/ for current information.

>>>

Ln: 5 Col: 57
```

```
Python 3.5.2 Shell
[GCC 4.2.1 Compatible Apple LLVM 4.2 (clang-425.0.28)] on darwin
Type "copyright", "credits" or "license()" for more information.
>>> WARNING: The version of Tcl/Tk (8.5.9) in use may be unstable.
Visit http://www.python.org/download/mac/tcltk/ for current information.

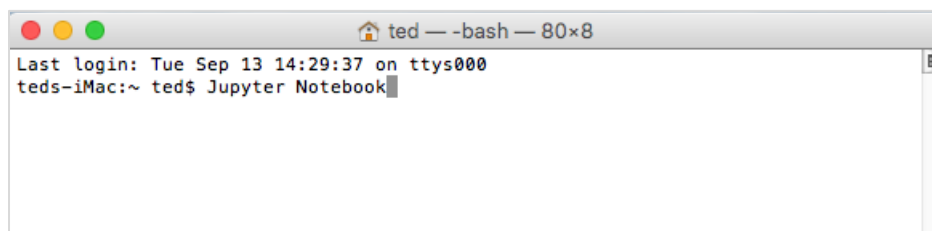
>>> 1+2
3
>>> print("Hello, world!")
Hello, world!
>>>

Ln: 11 Col: 4
```

Figure 2

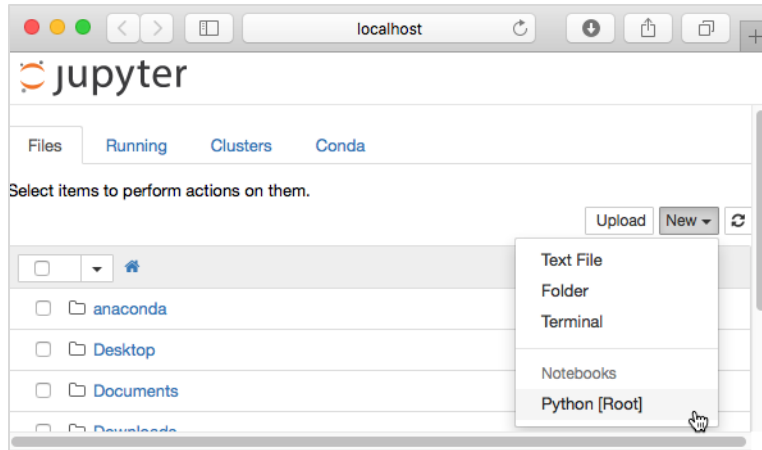
Method 3. Jupyter Notebook

The third way is to type in **Jupyter Notebook** in the terminal and hit **<enter>**.



```
ted — -bash — 80x8
Last login: Tue Sep 13 14:29:37 on ttys000
teds-iMac:~ ted$ Jupyter Notebook
```

In the Jupyter Notebook window, click **New** (top right corner) then select **Python [Root]**.



Type in a few python commands and click the run cell button (▶) to see the output.

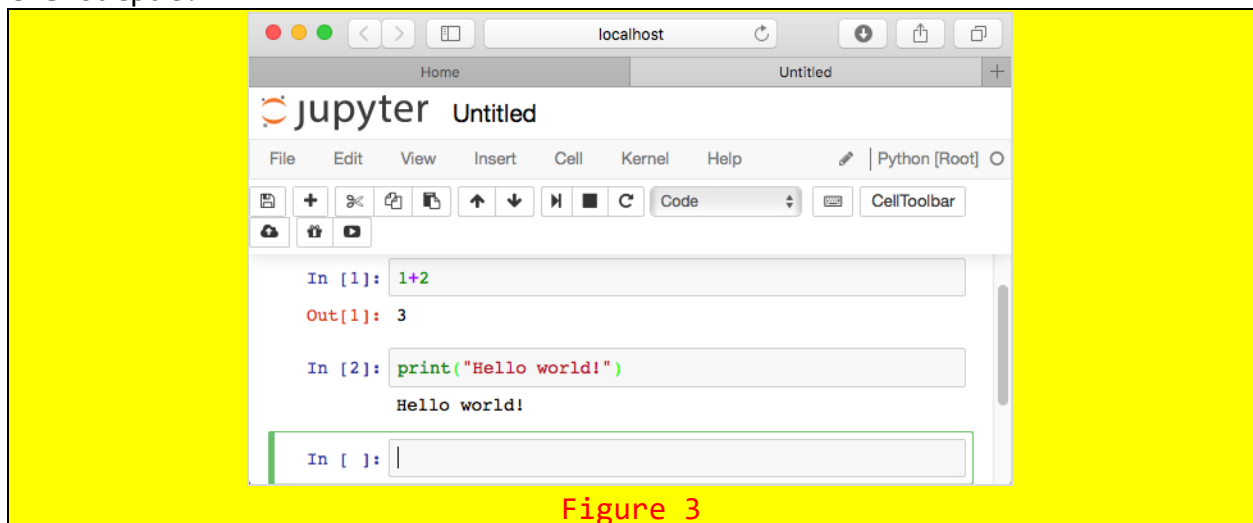


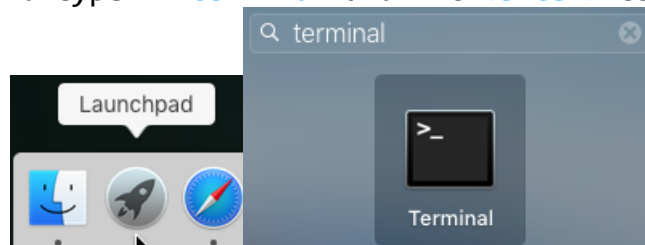
Figure 3

SCRIPT MODE

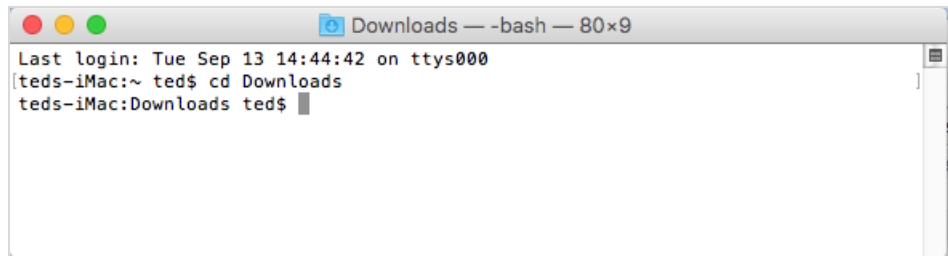
Download the file named [hello.py](#) from MyCourses and put it in your Downloads folder.

Method 1. Terminal

Click [Launchpad](#) and type in [terminal](#) and hit <enter> to run the Terminal.

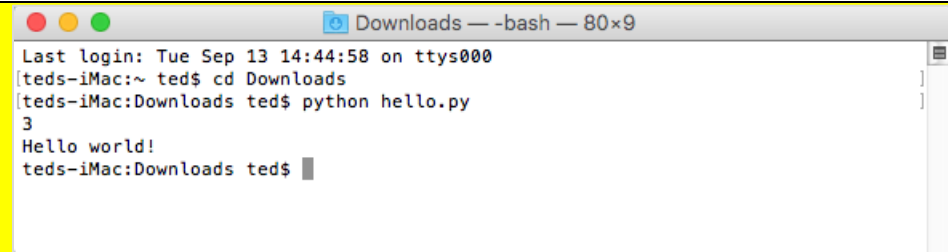


In the terminal, type in `cd Downloads` and hit `<enter>` to enter the Downloads folder.

A terminal window titled "Downloads — -bash — 80x9". The text inside shows the user logging in, then typing `cd Downloads` and pressing enter. The prompt changes from `teds-iMac:~` to `teds-iMac:Downloads`.

```
Last login: Tue Sep 13 14:44:42 on ttys000
teds-iMac:~ ted$ cd Downloads
teds-iMac:Downloads ted$
```

Type in `python hello.py` to run the script and see the output.

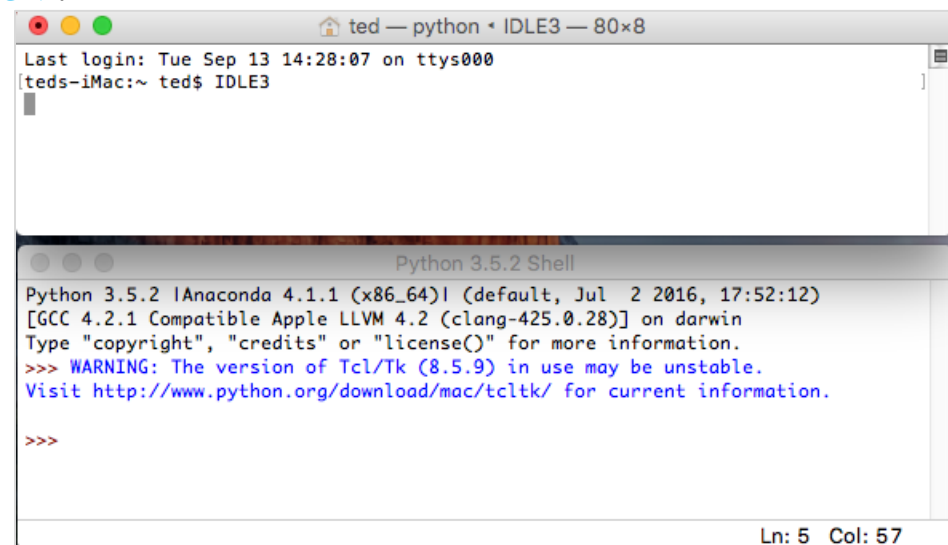
A terminal window titled "Downloads — -bash — 80x9". It shows the user typing `python hello.py` and pressing enter. The output is `3` followed by `Hello world!`.

```
Last login: Tue Sep 13 14:44:58 on ttys000
teds-iMac:~ ted$ cd Downloads
teds-iMac:Downloads ted$ python hello.py
3
Hello world!
teds-iMac:Downloads ted$
```

Figure 4

Method 2. IDLE

The second way to run the script is to type in `IDLE3` in the terminal and hit `<enter>`.

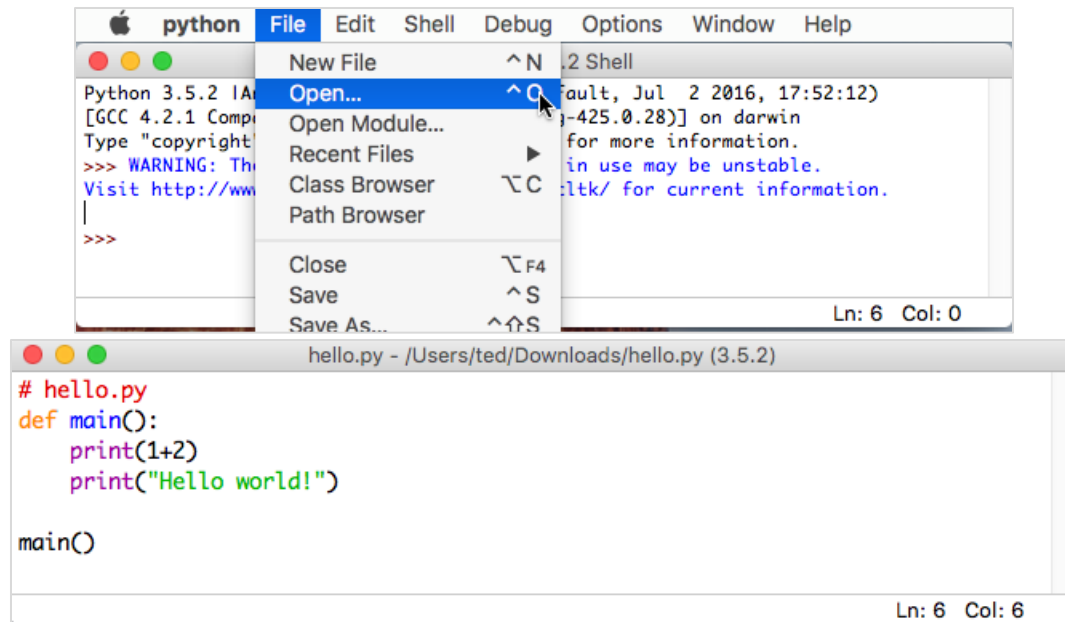
Two overlapping windows. The top window is a terminal titled "ted — python • IDLE3 — 80x8" showing the user typing `IDLE3`. The bottom window is titled "Python 3.5.2 Shell" and displays version information and a warning about Tcl/Tk.

```
ted — python • IDLE3 — 80x8
Last login: Tue Sep 13 14:28:07 on ttys000
teds-iMac:~ ted$ IDLE3

Python 3.5.2 Shell
Python 3.5.2 |Anaconda 4.1.1 (x86_64)| (default, Jul 2 2016, 17:52:12)
[GCC 4.2.1 Compatible Apple LLVM 4.2 (clang-425.0.28)] on darwin
Type "copyright", "credits" or "license()" for more information.
>>> WARNING: The version of Tcl/Tk (8.5.9) in use may be unstable.
Visit http://www.python.org/download/mac/tcltk/ for current information.

>>>
```

Then click the menu `File/Open...` to open the `hello.py` file in the Download folder.



Then click the menu **Run/Run Module** and see the output in the IDLE shell.

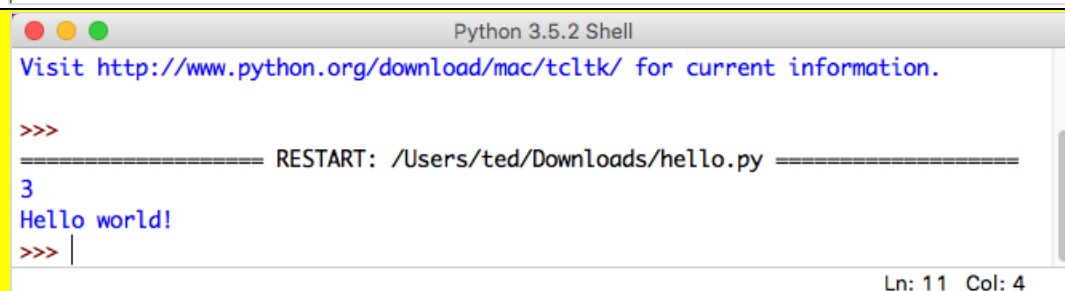
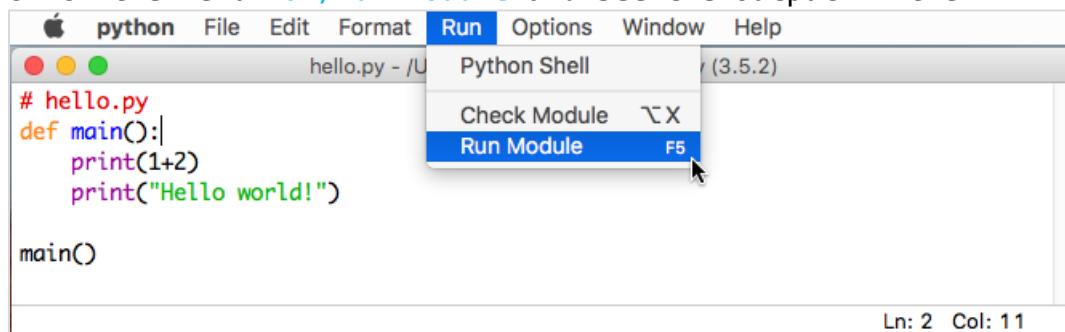



Figure 5

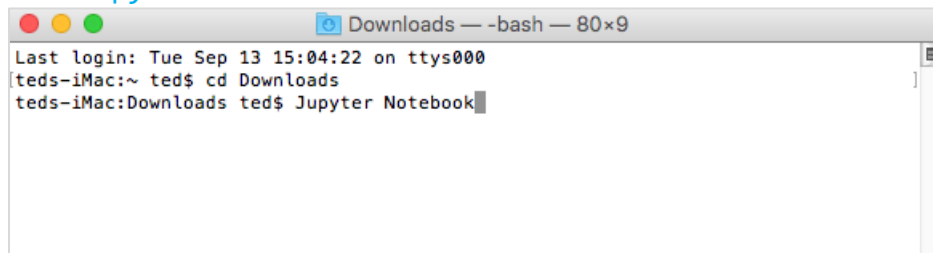
Method 3. Jupyter Notebook

In the terminal, type in `cd Downloads` and hit `<enter>` to enter the Downloads folder.



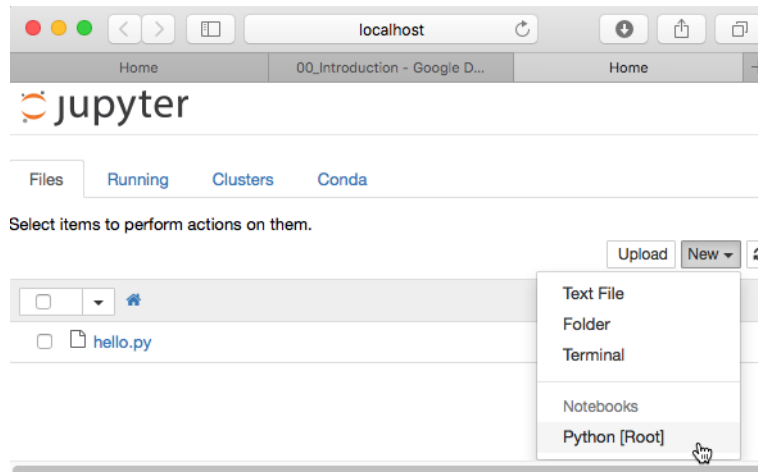
```
Downloads — -bash — 80x9
Last login: Tue Sep 13 14:44:42 on ttys000
[teds-iMac:~ ted$ cd Downloads
teds-iMac:Downloads ted$
```

Then type in **Jupyter Notebook** in the Windows Start Menu and hit **<enter>**.



```
Downloads — -bash — 80x9
Last login: Tue Sep 13 15:04:22 on ttys000
[teds-iMac:~ ted$ cd Downloads
teds-iMac:Downloads ted$ Jupyter Notebook
```

In the Jupyter Notebook window, click **New** (top right corner) then select **Python [Root]**.



Type in **run hello.py** and click the run cell button (▶) to see the output.

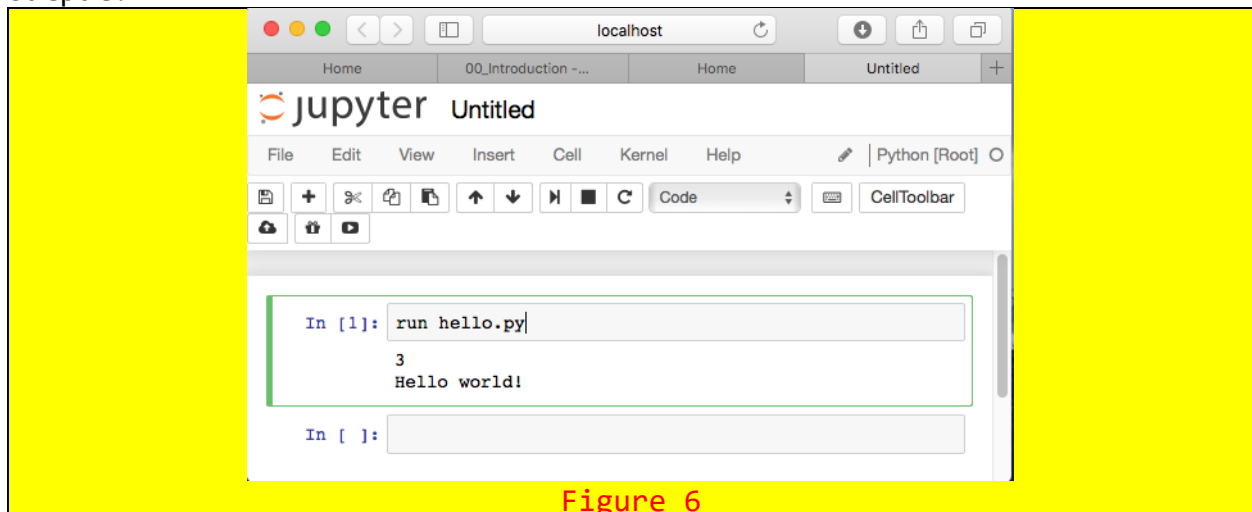


Figure 6