

Introduction to Python

DeltaWomen - UNOV

2019-06-14

Class details

- Class time: **Fridays 5pm - 7pm (GMT+1)**
 - Lecture: 5pm - 6:15pm
 - Q&A: 6:15pm - 7:00pm
- Instructor details:
 - Name: Aslamah
 - Contact: arahman.vol@gmail.com
- All course material will be available on GitHub
 - <https://github.com/aslamahrahman/Python-UNOV-2019>
- Weekly assignments:
 - Due every **Wednesday 11pm (GMT+1)**
 - Email to arahman.vol@gmail.com

Questions?

- Email to arahman.vol@gmail.com by the end of lecture:
 - Name
 - Age
 - What do you do?
 - Have you taken computer programming classes before?
 - Have you taken Python classes before?
 - What do you want to build with Python?
 - Any thoughts/feedback?
- Any questions for me?
- Please mute mic during lecture
- Questions during lecture: Post on Telegram (Last 45 minutes for answering questions)

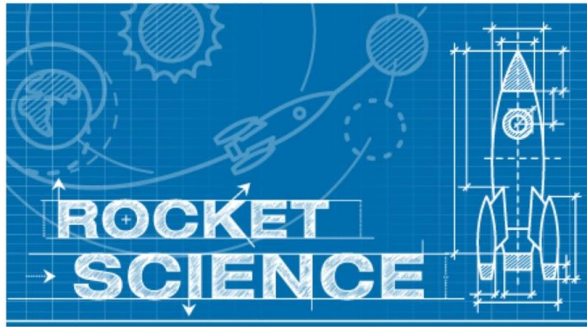


Python Programming Language

What is Python?

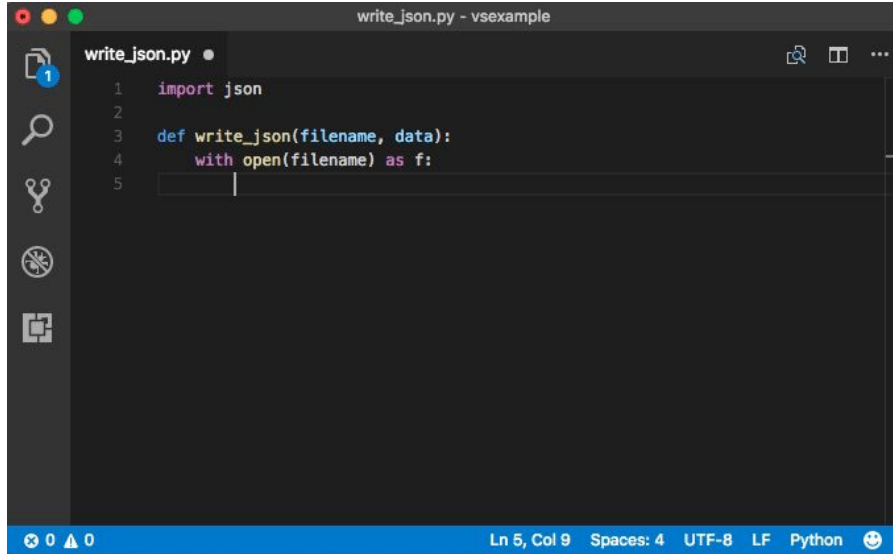
- Programming language: Instructions for a computer to do a task
- Widely used
 - Google search engine (www.google.com)
 - YouTube (www.youtube.com)
 - Instagram
 - And many more...
- Very easy to read & understand
- General purpose = So many different applications!

What can you do with Python?



And much much more...

What do you need to program in Python?

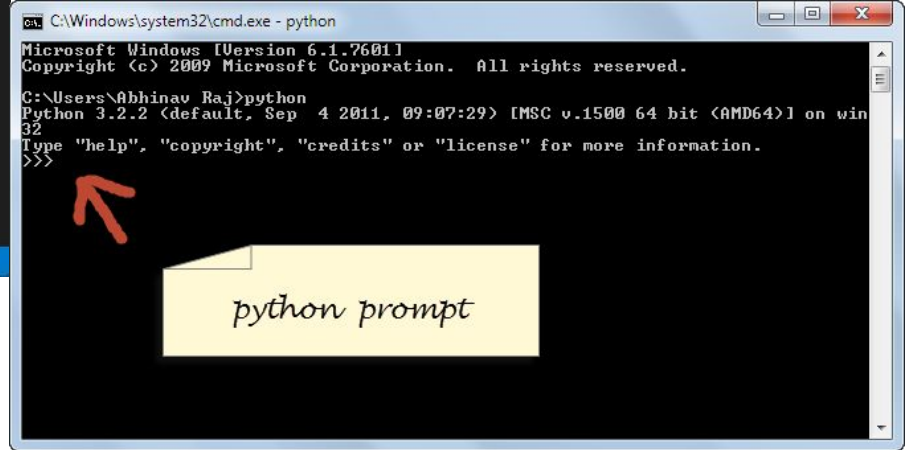


A screenshot of a code editor window titled "write_json.py - vsexample". The editor shows the following Python code:

```
1 import json
2
3 def write_json(filename, data):
4     with open(filename) as f:
5         
```

The status bar at the bottom indicates "Ln 5, Col 9 Spaces: 4 UTF-8 LF Python".

<< **Editor (IDE):** To write Python code



A screenshot of a Windows Command Prompt window titled "C:\Windows\system32\cmd.exe - python". The output shows the Python version and environment information:

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Abhinav Raj>python
Python 3.2.2 <default, Sep  4 2011, 09:07:29> [MSC v.1500 64 bit (AMD64)] on win
32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

A red arrow points to the prompt ">>>>". A yellow sticky note with the text "python prompt" is placed over the bottom right of the window.

Command Prompt: To run the code >>

Installation & Set Up

Windows - Anaconda (Python) software

- Go to <https://www.anaconda.com/distribution/#download-section>
- Or Google “Anaconda Python Windows installation”
- Download “Python 3.7” for Windows

The screenshot shows the Anaconda 2019.03 for Windows Installer download page. At the top, there are navigation links for Windows, macOS, and Linux. The main heading is "Anaconda 2019.03 for Windows Installer". Below this, there are two columns for different Python versions. The left column is for "Python 3.7 version" and the right column is for "Python 2.7 version". Each column has a "Download" button. The "Download" button for Python 3.7 is circled in red. Below the buttons, the file sizes for 64-bit and 32-bit graphical installers are listed. At the bottom, there is a section titled "Get Started with Anaconda Distribution" with five links: Documentation, Anaconda Blog, Community Support, Anaconda Webinars, and Anaconda Training.

Windows | macOS | Linux

Anaconda 2019.03 for Windows Installer

Python 3.7 version

Download

64-Bit Graphical Installer (662 MB)
32-Bit Graphical Installer (546 MB)

Python 2.7 version

Download

64-Bit Graphical Installer (587 MB)
32-Bit Graphical Installer (493 MB)

Get Started with Anaconda Distribution

Documentation
Installation and user guide for Anaconda

Anaconda Blog
News, software releases, and developer best

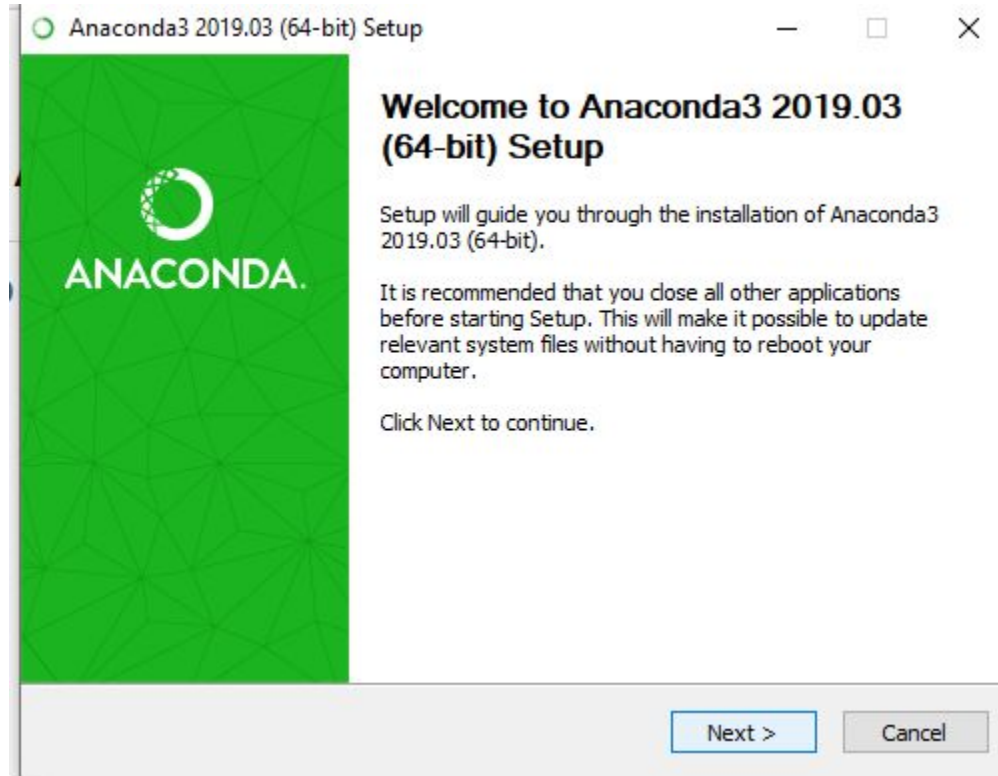
Community Support
Solutions and knowledge from the community

Anaconda Webinars
Industry trends and tutorials from Anaconda

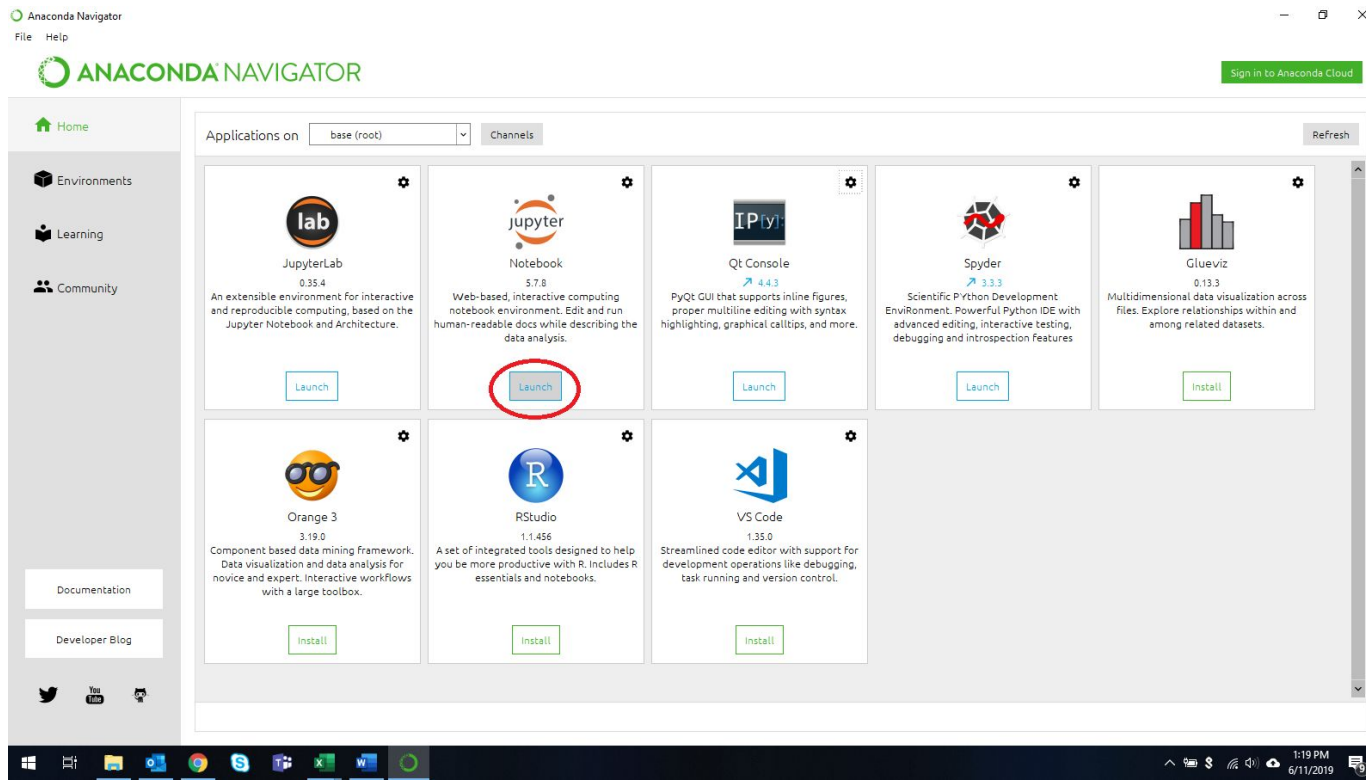
Anaconda Training
Learn Python for Data Science with DataCamp

https://repo.anaconda.com/archive/Anaconda3-2019.03-Windows-x86_64.exe

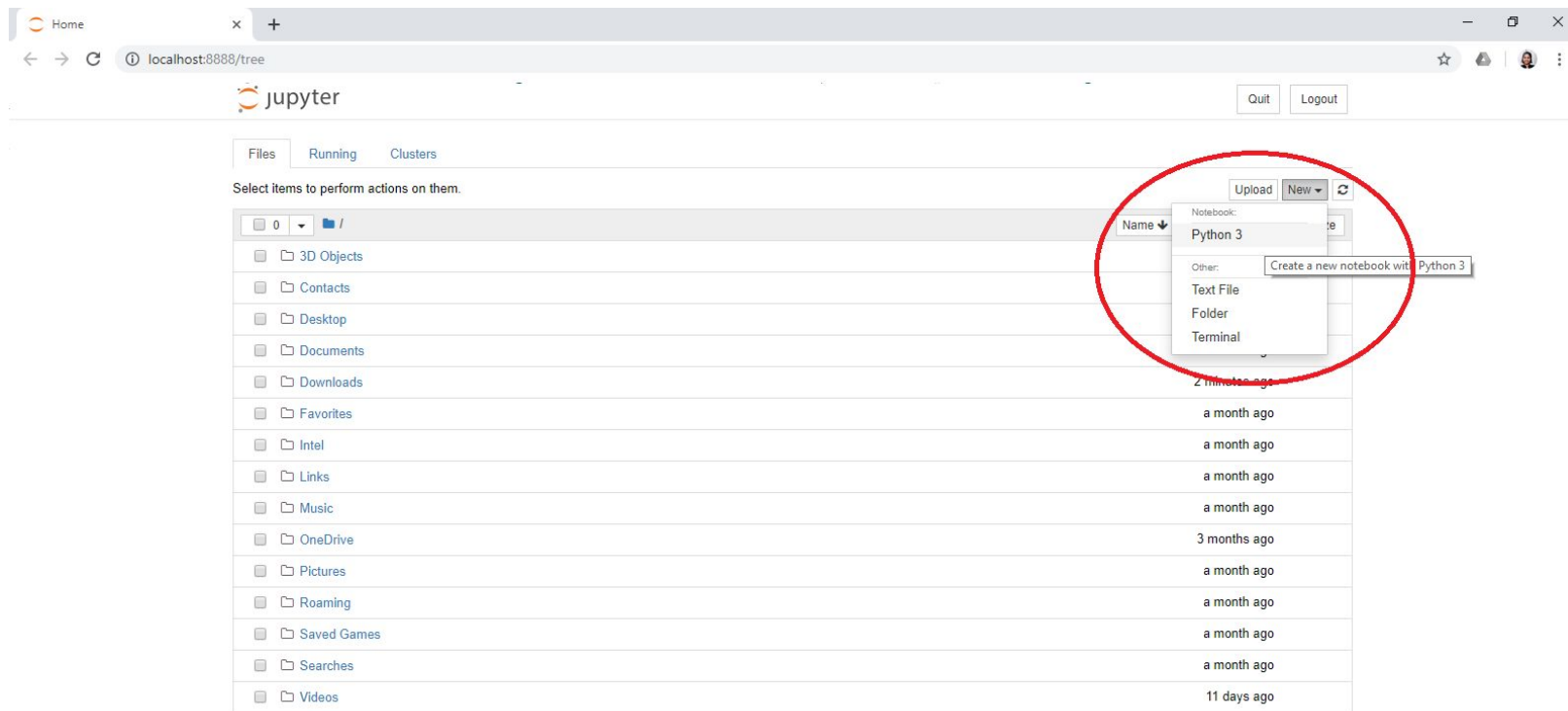
Run Anaconda installation



Open “Anaconda Navigator” & Launch “Jupyter Notebook”



Create new Jupyter Notebook



Code!

The image shows a Jupyter Notebook interface in a web browser. The browser tabs show 'Home' and 'Untitled'. The address bar shows 'localhost:8888/notebooks/Untitled.ipynb?kernel_name=python3'. The Jupyter logo and 'Untitled (unsaved changes)' are at the top left. A 'Logout' button is at the top right. Below the title bar is a menu bar with 'File', 'Edit', 'View', 'Insert', 'Cell', 'Kernel', 'Widgets', and 'Help'. To the right of the menu bar are 'Trusted' and 'Python 3' buttons. Below the menu bar is a toolbar with icons for saving, adding, deleting, copying, pasting, undo, redo, and running. The main area contains a code cell with the prompt 'In [1]:' followed by the code `print("Congratulations! You have taken your first step in learning Python!")`. Below the code is the output 'Congratulations! You have taken your first step in learning Python!'. A red arrow points from the label 'EDITOR' to the code input area. Another red arrow points from the label 'COMMAND PROMPT' to the output area.

Home x Untitled x +

localhost:8888/notebooks/Untitled.ipynb?kernel_name=python3

jupyter Untitled (unsaved changes) Logout

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3

Save Add Delete Copy Paste Undo Redo Run Stop Restart Code Keyboard

In [1]: `print("Congratulations! You have taken your first step in learning Python!")`

Congratulations! You have taken your first step in learning Python!

EDITOR **COMMAND PROMPT**

Sample Program

- Writing a program
- Tabs & spaces
- How execution works

Have questions on any programming
related stuff?

www.google.com

www.stackoverflow.com

Questions/Feedback?

Assignment due next **Wednesday 19 June 2019**

- Go to <https://github.com/aslamahrahman/Python-UNOV-2019>
- 2 questions + 1 optional question
- Email all answers to arahman.vol@gmail.com
- Title of email should be “**Python assignment: (Week number), (Name)**”
- Make sure to mention your **name** in the email
- Submit by **19 June 2019, 11pm (GMT+1)**
- Let me know as soon as possible if you have trouble seeing the assignment