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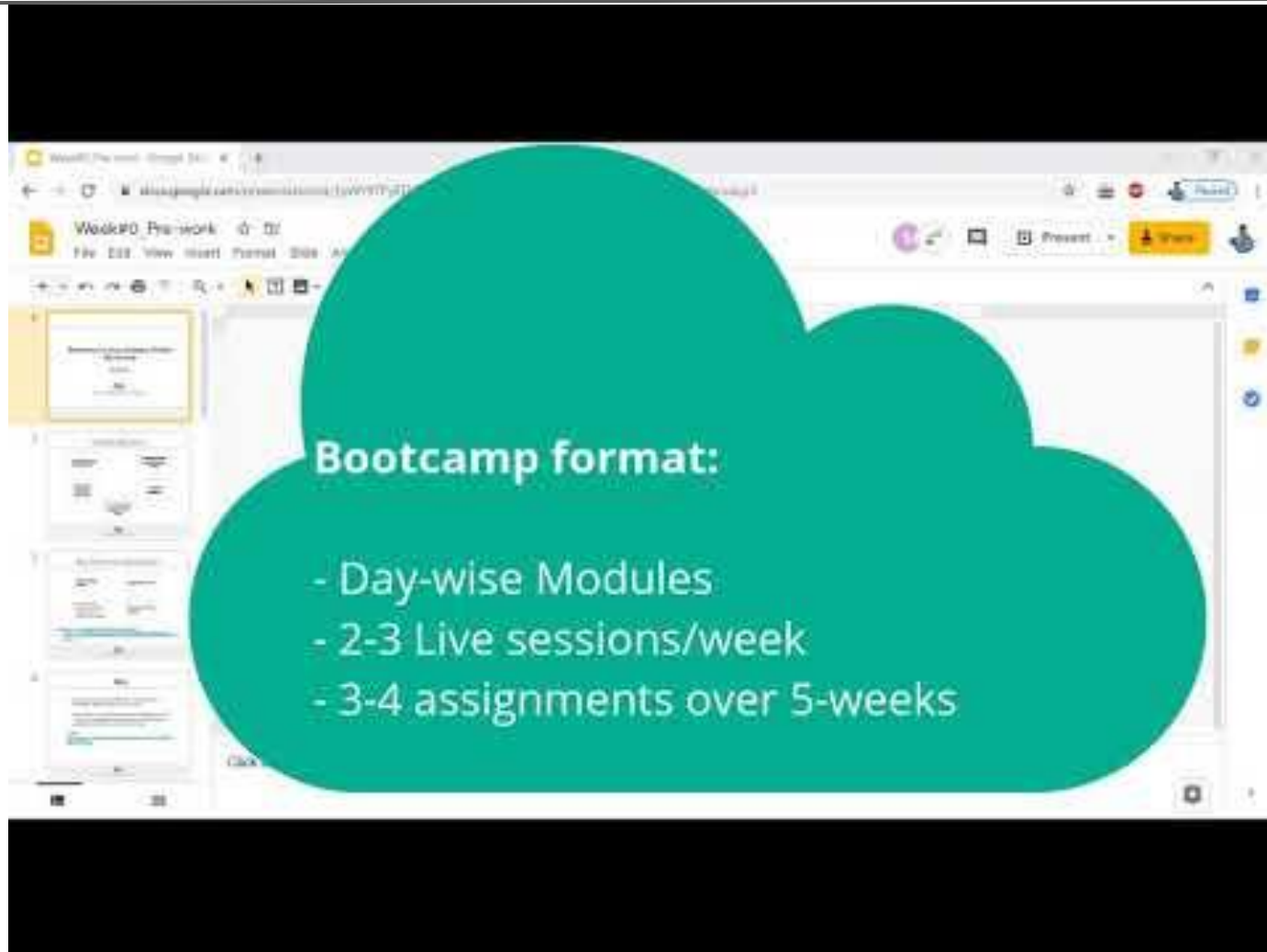
# Welcome to Data Science Online Bootcamp

Day 0

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Democratizing Data Science Learning

# Intro Video



The image shows a screenshot of a Google Slides presentation. A large teal cloud shape is overlaid on the center of the slide, containing the following text:

**Bootcamp format:**

- Day-wise Modules
- 2-3 Live sessions/week
- 3-4 assignments over 5-weeks

The background of the slide shows a Google Slides interface with a sidebar on the left displaying a list of slides. The top of the slide shows the Google Slides toolbar with options like 'Present' and 'Share'.



Democratizing Data Science Learning

# Learning Objectives

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**1. Why Python for  
Data Science?**

**2. Google Colab -  
Running Python  
Online**

**3. Python &  
Anaconda  
installation**

**4. Jupyter  
notebook**

**5. Print your first  
program “Hello  
World”**



# Why Python for Data Science?

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Free and open  
source

Great community

70K+ libraries -  
allows to automate  
most things with  
simple lines of code

Easy and intuitive  
to use

**What to learn more why python is best? Read the below articles**

- <https://www.cbtdnuggets.com/blog/technology/data/why-data-scientists-love-python>
- <https://www.kdnuggets.com/2018/05/poll-tools-analytics-data-science-machine-learning-results.html>



# Note

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- Data Science is not about Python, R, Excel, Jupyter Notebook, Google Colab etc or any tool
- Data Science is using above tools and techniques, and if required inventing new tools and techniques, to solve a problem using “data” in a “scientific” way.

Credits:

<https://www.linkedin.com/feed/update/urn:li:activity:6667326207958372352/>



# Python and Google Colab

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- Python - you know by now it is a programming language.
- Now what is Google Colab and Colab Notebook?
- We are humans and always need user-friendly applications. So Google offers Google Colab notebooks (also called as online version of Jupyter notebook) that is **easy-to-use and interactive data science environment**.
  - Not just that, Google colab offers you upto 25 GB ram/GPU etc **for free** and 100 GB storage.
  - So, you don't need to worry about installing a bulky python local application on your laptop/computer
- **Google colab registration:** <https://colab.research.google.com/>



# Online Environment to Run Python Code

There seems to some issue with visibility in the video with print function. **Print function is usually used as follows `print(z)`** However, in the video it appears to be `print.(z)`. due to screen recording issue, so please use the correct one i.e `print(z)`



*If you have good internet connection and are comfortable using google colab, then just jump to slide #15. Else, follow rest of the slides to install python and anaconda on your computer/laptop*



# What is Anaconda and Jupyter Notebook?

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- Python - you know by now it is a programming language. Now what is Anaconda?
- Anaconda is a free and open-source distribution of Python. In nutshell it makes your life easy to run python code on your laptop/computer.
- Again why Anaconda? - C'mon we are humans and we need user-friendly applications. So Anaconda offers a powerful tool called "Jupyter notebook" which is **easy-to-use and interactive data science environment**.



# Install Python and Anaconda (Windows)

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- **Step1:** Install Python
  - Direct download link:  
<https://www.python.org/downloads/>
  - **Video instructions:**  
<https://www.youtube.com/watch?v=bnhQBUEpWlg>
- **Step 2:** Download and install Anaconda here:  
<https://docs.anaconda.com/anaconda/install/windows/>
  - **Video instructions:**  
<https://www.youtube.com/watch?v=4PpAdWFc5Fo>

**Note:** Please feel free to **avoid step 12** in the link, which is optional.



# For Ubuntu/Linux Users

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- <https://docs.anaconda.com/anaconda/install/mac-os/>
- <https://docs.anaconda.com/anaconda/install/linux/>

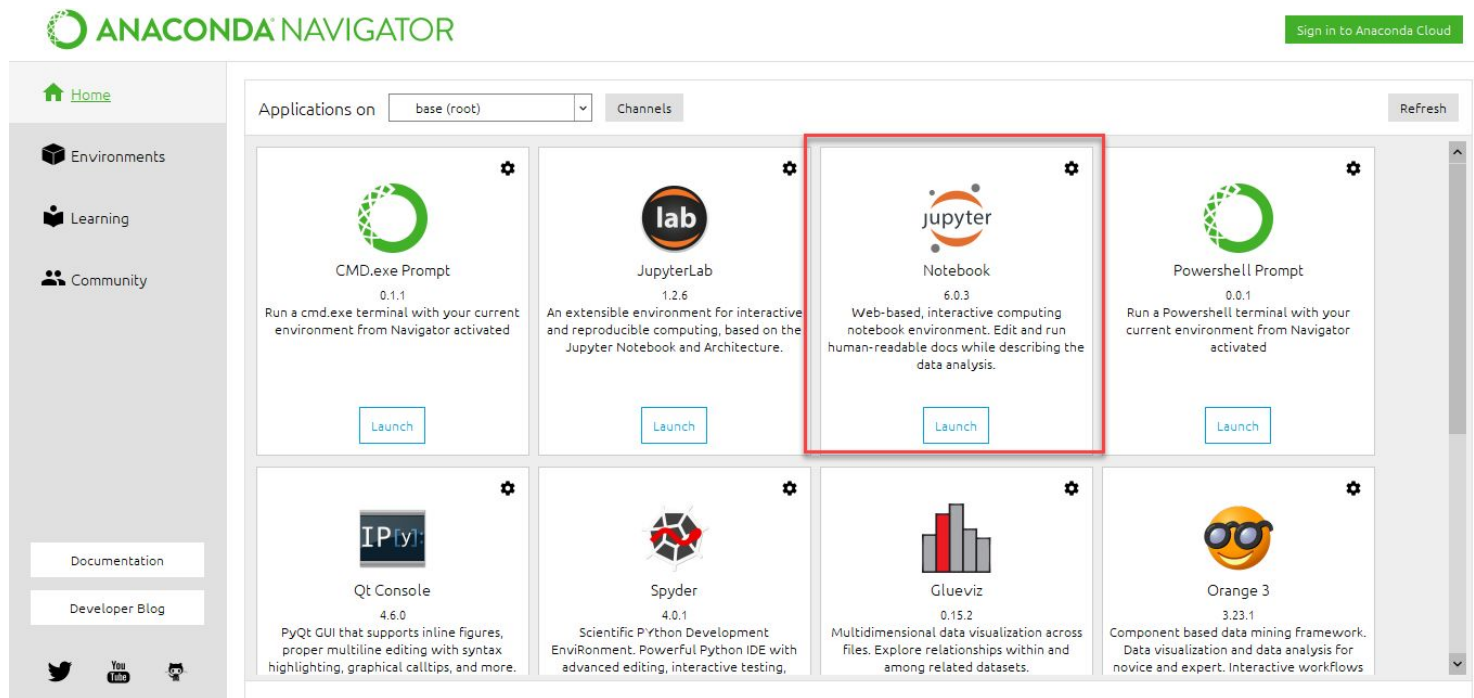
## **For stepwise guided process:**

- <https://www.datacamp.com/community/tutorials/installing-an-conda-mac-os-x>
- <https://www.digitalocean.com/community/tutorials/how-to-install-the-anaconda-python-distribution-on-ubuntu-18-04>



# Now Let's Open Anaconda Navigator

- You will be able to see the below screen once you open the recently installed “anaconda navigator” application.
- If you can't find the navigator icon in your menu, you can type anaconda-navigator in command line.
- Click “Launch” under Jupyter Notebook in anaconda navigator in order to open a notebook in your default web browser.



# Jupyter Interface

- This is what the basic jupyter interface looks like!
- No files might be displayed if your folder is empty.



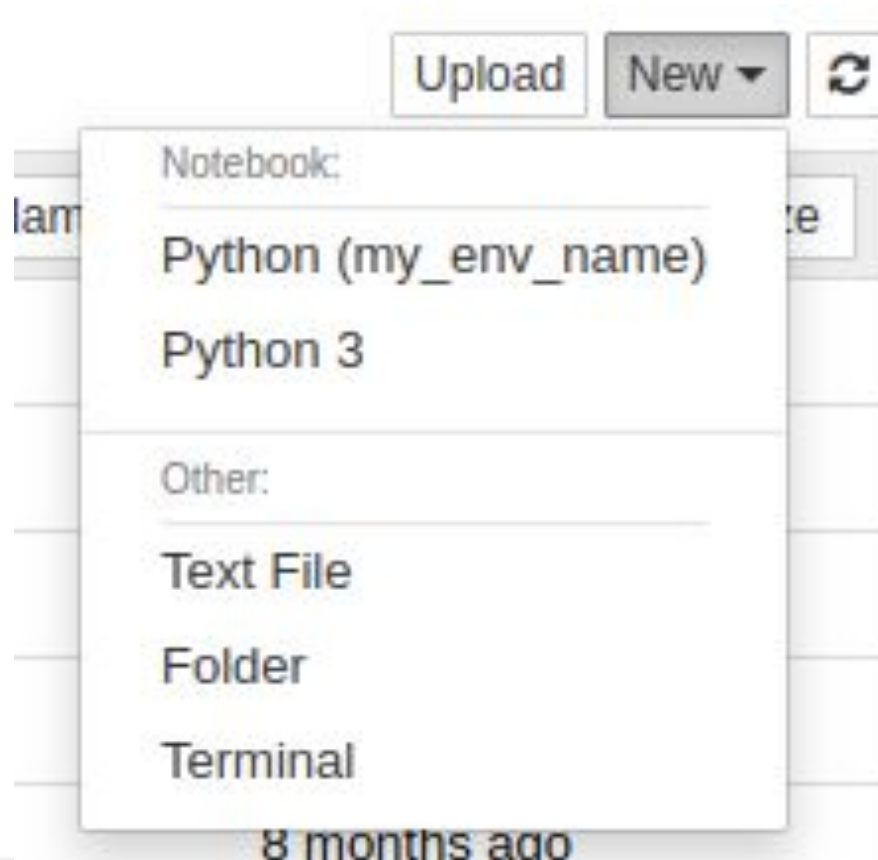
The screenshot displays the JupyterLab interface. At the top left is the Jupyter logo, and at the top right is a 'Logout' button. Below the header, there are three tabs: 'Files' (selected), 'Running', and 'Clusters'. A message states 'Select items to perform actions on them.' To the right of this message are buttons for 'Upload', 'New', and a refresh icon. The main area shows a file browser with a table of files and folders. The table has columns for 'Name' and 'Last Modified'. The files listed include several folders and IPYNB files, some of which are in a 'Running' state.

	Name	Last Modified
<input type="checkbox"/>	images	2 days ago
<input type="checkbox"/>	L1_workspaces	an hour ago
<input type="checkbox"/>	L2_workspaces	a day ago
<input type="checkbox"/>	project-i	19 minutes ago
<input type="checkbox"/>	project-ii	an hour ago
<input type="checkbox"/>	quizzes	a month ago
<input type="checkbox"/>	binomial_distribution_exercise.ipynb	Running a day ago
<input type="checkbox"/>	college_enrollment.ipynb	Running a day ago
<input type="checkbox"/>	distribution_images.ipynb	Running 7 days ago
<input type="checkbox"/>	intro_stats_numpy.ipynb	Running 2 days ago
<input type="checkbox"/>	normal_distribution_exercise.ipynb	Running a day ago
<input type="checkbox"/>	numpy_test.ipynb	a month ago



# Create a New Notebook

- To create a new notebook, go to New at the top right corner and select Notebook - Python 3.



# Exercises

# Try it out!

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- **Create your first program:**

Type `print("hello world")` in the blank cell.

- **Shortcut to run code** “shift + enter” (jupyter) or “Ctrl+enter” (colab)
  - You’ll see an output *Hello World* below the cell.
- Now you can use your notebook as a calculator and perform basic operations like additions, subtraction etc by running the following commands:  
5+7  
2-3

See we told you, python is easy! It is by far simplest programming for humans.





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# That's it for the day. Thank you!

Feel free to post any queries in the  
**#help** channel on Slack

