CIS 678 Machine Learning

Development (Programming) environment

Outline

- Development environment: expectation on deliverables
- Python environment: short term and long term goals
- Google Colab vs Jupyter Notebook
- Demo (Google Colab setup & execution of sample code)

Development environment(s)

Expected deliverable:

- **Choose your preferred language: {Java, C++, Python, R}**

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    - Package list (requirements.txt)

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- **Virtual environment**

Python environment(s)
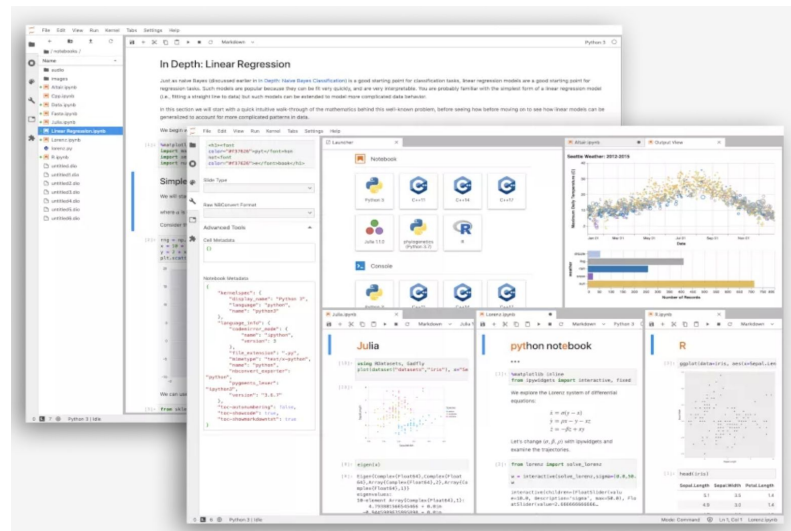
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Options:

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- Docker environment
- Google colaboratory
    - Our initial choice
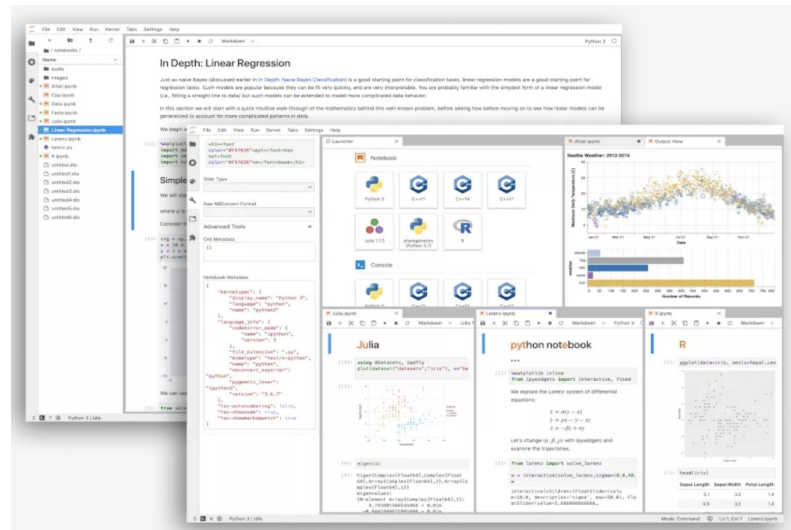   - To check if I am able to access your notebook(s) on Google drive

Google Colab (is a Jupyter Notebook) basics

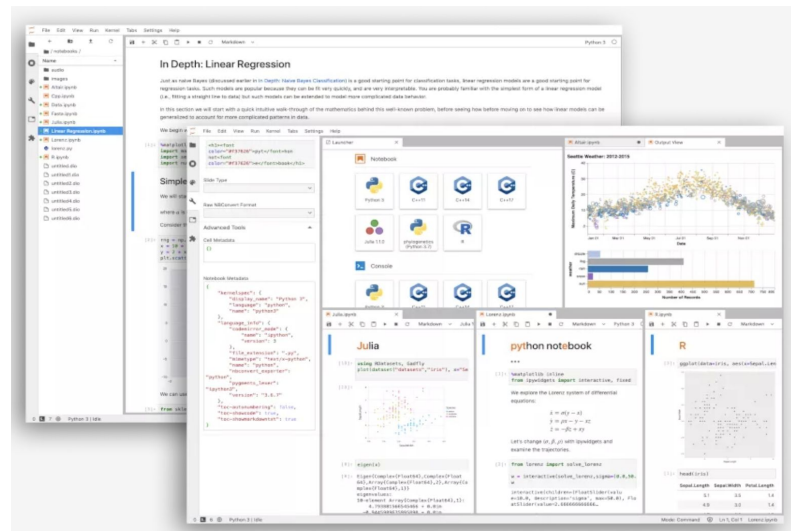- **Google** Colab(oratory) is a **Python** based Jupyter Notebook.

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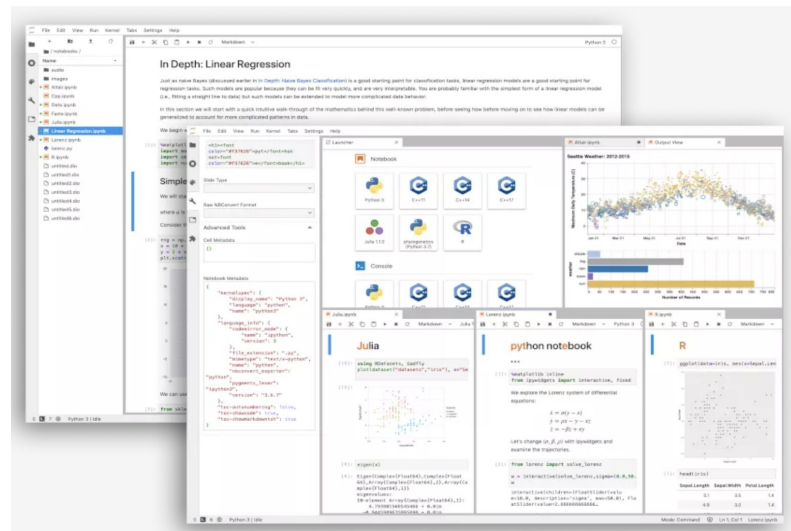
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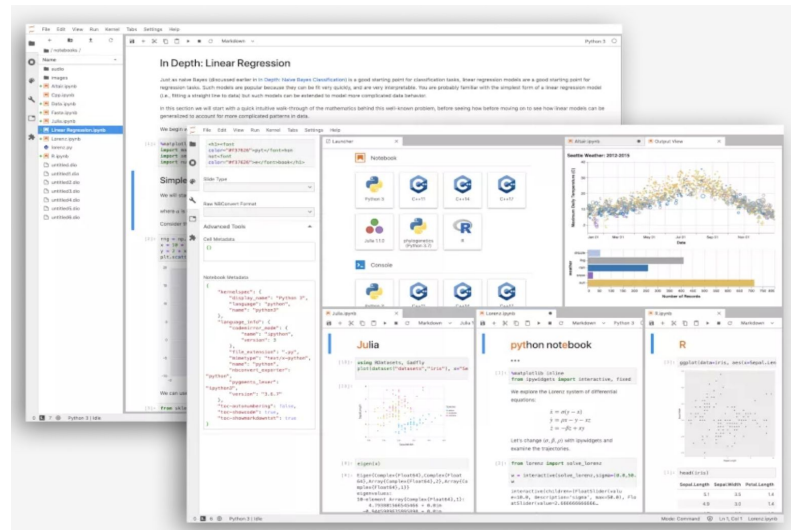 - Easy markdown and visualization capabilities

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  - Interactive programming experience (multi-language support) in the form of **documents**
  - Easy markdown and visualization capabilities
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- **IPython** is the predecessor and **Jupyterlab** (next generation Notebook interface) is the successor.

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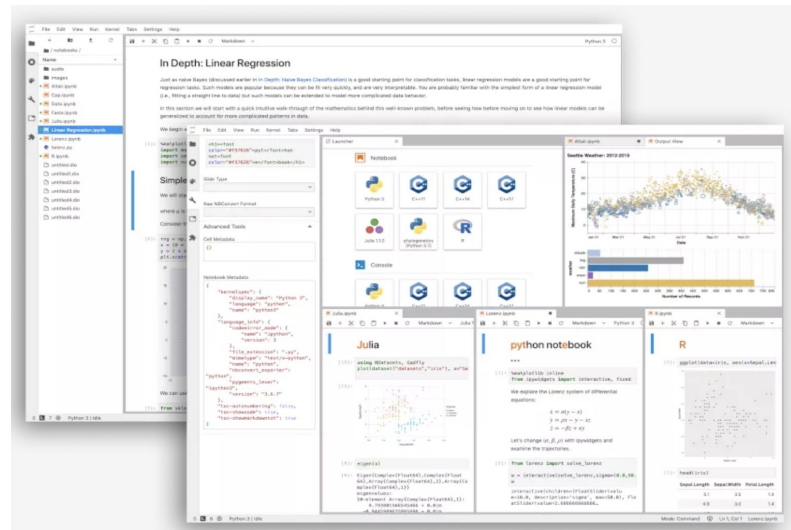
Google Colab Demo

- Setup & execution of sample code

Important resources

- https://colab.research.google.com/github/saigerutherford/introduction-to-python/blob/master/introduction-to-python.ipynb
- https://jupyter.org/
- https://medium.com/velotio-perspectives/the-ultimate-beginners-guide-to-jupyter-notebooks-6b00846ed2af
- https://colab.research.google.com/?utm_source=scs-index
- https://www.jcchouinard.com/google-colab-with-python/
- https://developers.google.com/edu/python/introduction
- https://learn.microsoft.com/en-us/training/modules/intro-to-python/