



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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Expected deliverable:

- Choose your preferred language: {Java, C++, Python, R}
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- **Stand alone executable code**



Python environment(s)

Expected deliverable:

- **Standalone executable code**
 - Code
 - Package list (requirements.txt)



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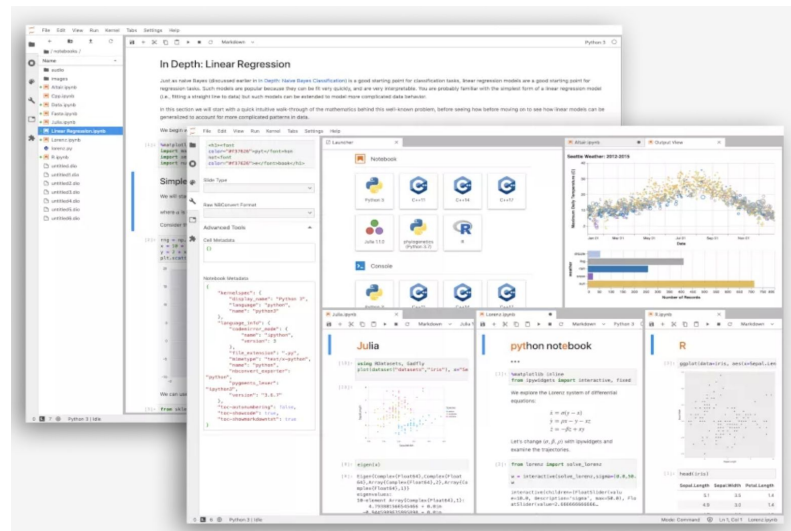
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Options:

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

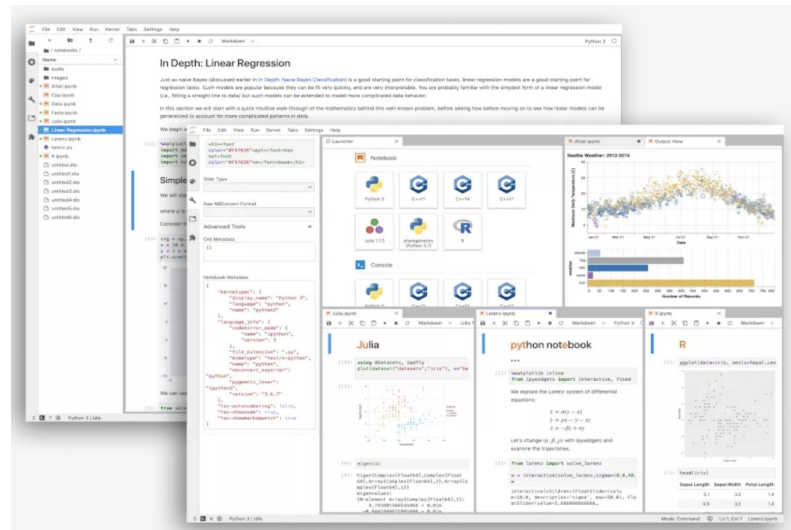
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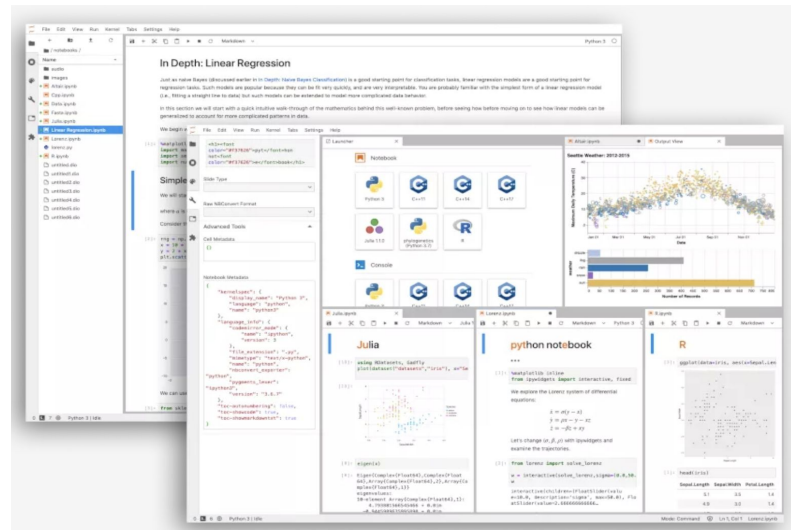
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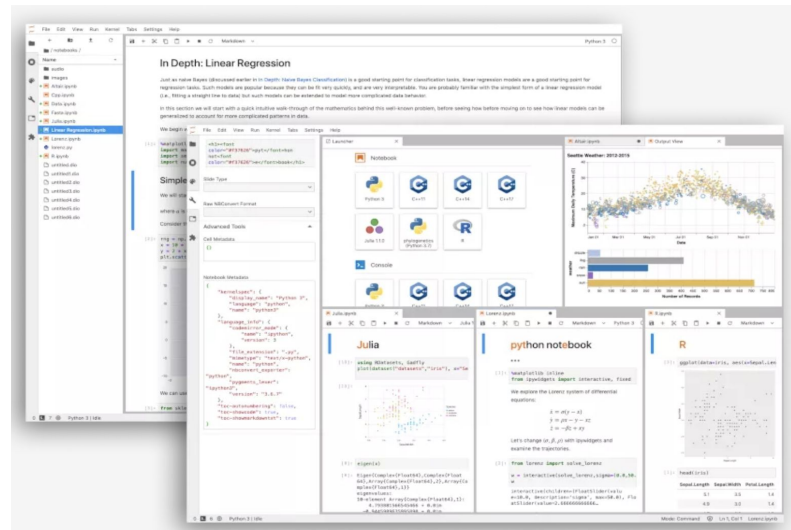
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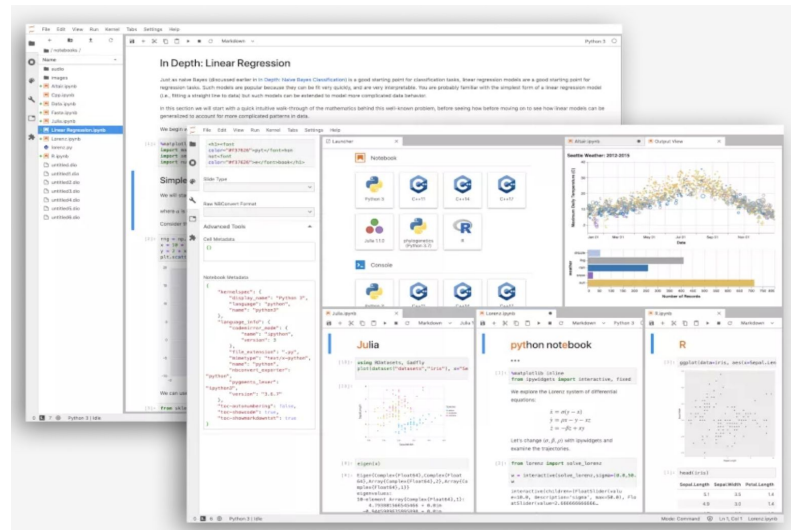
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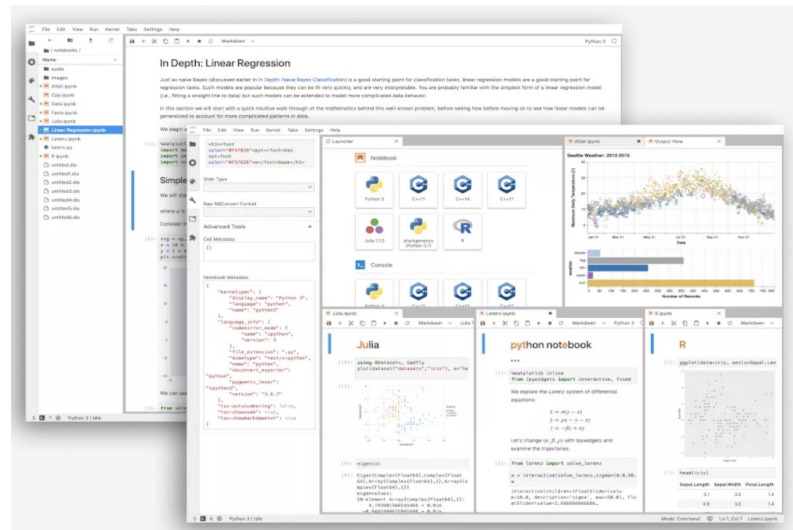
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- **IPython** is the predecessor and **Jupyterlab** (next generation Notebook interface) is the successor.





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.icchouinard.com/google-colab-with-python/>
- <https://developers.google.com/edu/python/introduction>
- <https://learn.microsoft.com/en-us/training/modules/intro-to-python/>