Python/Jupyter Crash Course

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2024-01-29

Overview

Anaconda installation

1. Follow installation instructions:
   https://docs.anaconda.com/anaconda/install/

2. After installation, check out the installed packages from your terminal:

   ```
   $ conda list
   ```

3. (To install other packages):

   ```
   $ conda install package_name   # installation from default channel
   $ conda install -c conda-forge jupyter_contrib_nbextensions
   ```

4. (To launch Anaconda Navigator from terminal)

   ```
   $ anaconda-navigator
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Jupyter

Jupyter notebook
The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text.

1. Open Jupyter notebook from your terminal

   NB: root directory in Jupyter will be that from where Jupyter is launched

   ```
   $ jupyter notebook
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2. In Jupyter, open a "Python 3 notebook", upload basic libraries

   ```python
   import numpy as np
   from matplotlib import pyplot as plt
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Jupyter

3. (optional) Install jupyter extensions
   https://jupyter-contrib-nbextensions.readthedocs.io/en/latest/install.html
   3.1 Install extensions

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   ```

   3.2 Enable extensions
      - From GUI:
        A new tab "Nbextensions" will appear in Jupyter, from which extensions can be enabled.
        Enable "Table of Contents (2)".

      - From Command Line:

      ```
      $ jupyter nbextension enable toc2/main
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Jupyter lab: Jupyter's Next-Generation Notebook Interface
JupyterLab is a web-based interactive development environment for Jupyter notebooks, code, and data.

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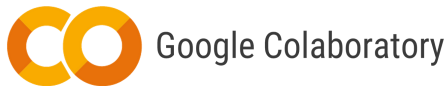1. Open Jupyter lab from your terminal

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Access "Google Colab"

Access "Google Colab"[1] environment:

1. Go to https://colab.research.google.com
2. Click "New notebook"
3. Start coding!
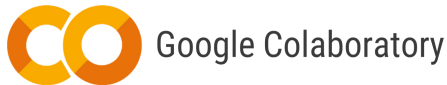

Google Colaboratory

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Jupyter crash course

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$\Rightarrow$ Open DIP4RS_01_python-jupyter/DIP4RS_01_jupyter-tutorial.ipynb

Python crash course

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