Tools for Data Science

▼ Week 4

Introduction to Jupyter Notebook:

- Jupyter Notebooks are used in Data Science for recording experiments and projects
- Jupyter Lab is compatible with many files and Data Science languages
- There are different ways to install and use Jupyter Notebooks

Lab: **Getting_Started_with_JupyterNotebook.ipynb**

Jupyter Kernels:

- The kernel acts like a computational engine and executes the code in a Notebook file
- Jupyter Notebook supports different languages
- You can switch to a different kernel as per your requirement

Lab: **Using_markdowns.ipynb**

Jupyter Architecture:

- Jupyter implements a two-process model with a kernel and a client
- The Notebook server is responsible for saving and loading the notebooks
- The kernel executes the cells of code contained in the Notebook
- The Jupyter architecture uses the NB convert tool to convert files to other formats

Lab: **Working_with_files.ipynb**

Anaconda:

- Jupyter is a popular computational notebook tool because it supports dozens of programming languages
- The Anaconda Navigator GUI can launch multiple applications on a local device
- Jupyter environments in the Anaconda Navigator include JupyterLab and VS Code
- You can download Jupyter environments separately from the Anaconda Navigator, but they may not be configured properly

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- Additional open-source Jupyter environments include JupyterLab, JupyterLite, VS Code, and Google Colaboratory
- JupyterLite is a browser-based tool

Reading: **DownloadandInstallAnaconda.pdf**

Summary:

- Jupyter Notebooks are used in Data Science for recording experiments and projects.
- Jupyter Lab is compatible with many files and Data Science languages.
- There are different ways to install and use Jupyter Notebooks.
- How to run, delete, and insert a code cell in Jupyter Notebooks.
- How to run multiple notebooks at the same time.
- How to present a notebook using a combination of Markdown and code cells.
- How to shut down your notebook sessions after you have completed your work on them.
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Reading: **JupyterNotebooksonInternet.pdf**