Hardware, Software, and Data Management
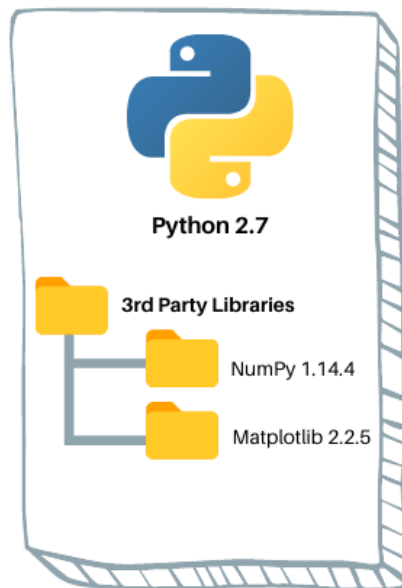
Tasks for This Week

- Understanding computing hardware

- Organizing and managing projects

- Managing environments

- Working with Jupyter lab/notebooks

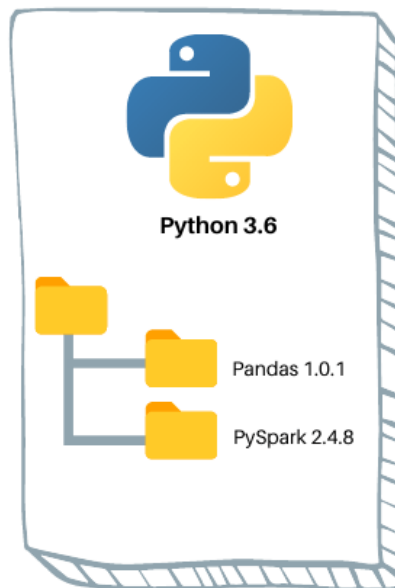- Working in Google Colab

- Introduction to SQL

File Management
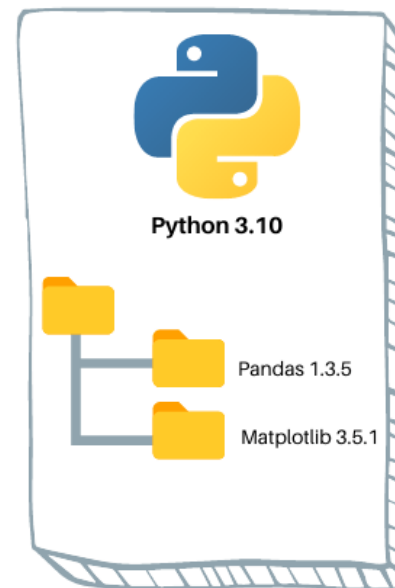
Virtual Environments

Virtual Environments

dataquest.io

Virtual Environments

1. Clean

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1. Clean

2. Dependency conflicts

Virtual Environments

1. Clean

2. Dependency conflicts

3. Reproducibility

Let's set one up!

Getting started

Windows

- Open Anaconda Prompt

- Dir: list files

- cd: change directory

macOS

- Open the terminal

- ls: list files

- cd: change directory

Linux

- Open the terminal

- ls: list files

- cd: change directory

Add Conda Forge

conda config -add channels conda-forge

conda config -set channel_priority strict

Creating an Environment

conda create -n ENVNAME python=x.x

conda activate ENVNAME

conda deactivate ENVNAME

conda install PACKAGE

conda list

conda env export > ENVIRONMENT.yml

Conda env create –n ENVNAME –file ENVIRONMENT.yml

Create a new environment with the following: Python 3.8, jupyterlab, pandas, matplotlib, and seaborn

Vocab

- Virtual/Conda/Computing environment

- Dependency

- RAM

- CPU

- GPU

- Hard drive/storage