How to set up Anaconda and Jupyter Notebook The Right Way

Installing Anaconda or Miniconda

- **Anaconda:** Includes many pre-installed Python packages and environment management features.
- **Miniconda:** A minimal version of Anaconda, suitable for limited disk space.
- **Download:** Visit the Anaconda website or use Linux commands.
- **Linux Installation:**

```
cd ~/Downloads

LATEST_ANACONDA=$(wget -O -
https://www.anaconda.com/distribution/ 2>/dev/null | sed -
ne
's@.*\(https:\/\/repo\.anaconda\.com\/archive\/Anaconda3-
.*-Linux-x86_64\.sh\)\".*>64-Bit (x86) Installer.*@@p')

wget $LATEST_ANACONDA

chmod +x Anaconda3*.sh

./Anaconda3*.sh
```

  - Follow the installation prompts and accept defaults.

Checking and Switching Conda Environments

- **Check Installation:** Type `conda` in the terminal.
- **List Environments:** `conda env list`
- **Switch Environments:** `conda activate [NAME]`
- **Deactivate Environment:** `conda deactivate`
- The "base" environment is active by default.

Installing Jupyter Notebook/Lab in the Base Environment

- **Install Jupyter Notebook:**
  - `conda install -c conda-forge notebook`
  - `conda install -c conda-forge nb_conda_kernels`
- **Install Jupyter Lab:**
  - `conda install -c conda-forge jupyterlab`
  - `conda install -c conda-forge nb_conda_kernels`
- **Install Jupyter Notebook Extensions:**
  - `conda install -c conda-forge jupyter_contrib_nbextensions`
- **(Optional) Install Pip:** `conda install pip`

Creating Environments in Conda and Jupyter Notebook

- **Create a New Environment:** `conda create --name [environment_name]`
- **Create with Packages:** `conda create -n [environment_name] [package1] [package2] pip ipykernel`
  - Example: `conda create -n tf-2.0 tensorflow-gpu pip ipykernel`
  - Example: `conda create -n tf-1.15 tensorflow-gpu==1.15 pip ipykernel`
- **List Environments:** `conda env list`

Start Jupyter Notebook and Check Environments and Extensions

- **Start Jupyter Notebook:** `jupyter notebook` (Run in the base environment)
- **Check Extensions:** Look for the "Extensions" tab.
- **Check Environments:** Create a new notebook and select the environment.
- **Switch Environments in Terminal:**
  - `conda activate [NAME]`
  - `conda install [package]` or `pip install [package]`
  - `conda deactivate`

Reference:
https://medium.com/data-science/how-to-set-up-anaconda-and-jupyter-notebook-the-right-way-de3b7623ea4a
https://towardsdatascience.com/how-to-launch-jupyter-notebook-quickly-26e500ad4560/