Conda Environment Usage (Mac)

I have created a conda environment called `ml-project-env` to house all python modules for our project so that we don't run into version issues. An initial version of the environment is provided in `environment.yml`. This document describes how to activate, deactivate, and edit the environment.

The environment currently contains the following packages (and their dependencies), which should suffice for our project:

- `NumPy` - for numerical computing and data manipulation
- `Pandas` - for data manipulation and analysis
- `Matplotlib` - for data visualization
- `Scikit-learn` - for machine learning algorithms and data preprocessing
- `TensorFlow` - for building and training deep learning models
- `PyTorch` - for building and training deep learning models
- `Keras` - for building and training deep learning models
- `Seaborn` - for advanced data visualization
- `Plotly` - for interactive data visualization
- `Jupyter` - for creating and sharing code notebooks

1. **Prerequisites: Install Python and Anaconda -** Everyone should have this already, but instructions are here if not: https://docs.anaconda.com/anaconda/install/. I am running `python 3.10.10` and `conda 23.1.0`. You can see what versions you have installed by running `python --version` and `conda --version` respectively.

2. **Create Environment:** Create the conda environment from `environment.yml` by running:
   ```
   conda env create -f environment.yml
   ```
   This should create an environment named `ml-project-env.`

3. **Activate Environment:** Activate the `ml-project-env` environment by running:
   ```
   conda activate env_name
   ```
   Activate before running any project-related code.

4. Run code as usual.

5. **Editing Environment:** If new packages are required:
   a. **Add new packages** to the environment by running:
      ```
      conda install package_name1 package_name2 ...
      ```
   b. **Update `environment.yml`** by running:
      ```
      conda env export > environment.yml
      ```
      So that others can then work with your updated version of the environment

6. **Deactivating Environment:** When done running project-related code, run the following to exit:
   ```
   conda deactivate
   ```