Supervised Machine Learning Readiness



Set up the Jupyter Workspace

## 00 - Preparing Python

*Start here if you do not have Python or the Conda package manager installed on your computer.*

### 00.1 - Install Python and Conda

Miniconda provides an easy way to install Python and the necessary dependencies for using Jupyter Notebooks.

1. Download the **Miniconda** installer for your operating system from the [Anaconda website](https://www.anaconda.com/download/success#miniconda).
2. Follow the installation instructions provided by the installer.
3. In the installer, ensure **Create shortcuts** is enabled.
4. After installation completes, proceed to the next section to set up the required environment (a collection of Python libraries required for executing Jupyter Notebooks available on NSF Unidata eLearning).

## 01 - Setting Up the Course Files

*After setting up Python, proceed with these instructions to prepare the Jupyter workspace and download the course files for the following modules.*

### 01.01 - Set Up the Python Environment

You only need to complete these steps once. The unidata-edhub environment is required for all Jupyter resources on NSF Unidata eLearning.

1. Download the [environment.yml](https://drive.google.com/file/d/1fp-L8tnze-821onYYL5_8OUQ9n0aKkZJ/view?usp=sharing) file and save it to a known location on your computer.
2. Open a terminal (Linux or macOS) or Anaconda Prompt (Windows).
3. Navigate to the folder where you saved environment.yml, for example:

cd C:\Users\Owner\Documents\PythonEnvironments

1. Run the following command to create the environment:

conda env create -f environment.yml

1. This process may take several minutes.

### 01.02 - Download and extract files

1. Open the [supervised-ml-readiness](https://github.com/Unidata/supervised-ml-readiness) GitHub repository in your web browser.
2. At the top of the page, select the **Code** button, then select **Download ZIP**.
3. After downloading, extract the files to a known location on your computer.

### 01.03 - Open Jupyter Lab

1. Open a terminal (Linux or MacOS) or Anaconda Prompt (Windows).
2. Activate the **unidata-edhub** environment:

conda activate unidata-edhub

Note: If you see the error EnvironmentNameNotFound: Could not find conda environment: unidata-edhub, follow the steps in the previous section to set up the environment.

1. Navigate to the folder where you extracted the GitHub repository, for example:

cd C:\Users\Owner\Documents\JupyterNotebooks

1. Start Jupyter Lab:

jupyter lab

Jupyter Lab opens in a new browser tab.

**Important:** Keep the terminal or Anaconda Prompt window open while using Jupyter Lab.

1. In Jupyter Lab, use the **File Browser** in the left sidebar to locate the .ipynb files. Double-click the file to open it.
2. If prompted to select a kernel, choose **Python [conda env: unidata-edhub]**.