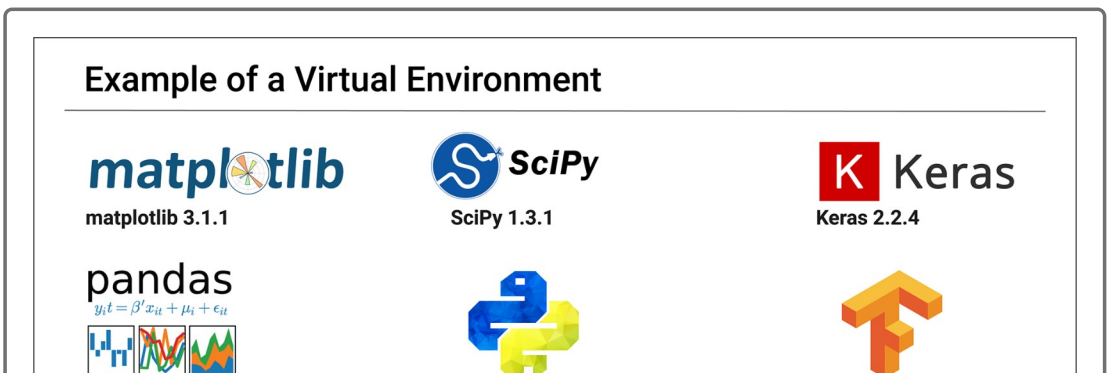
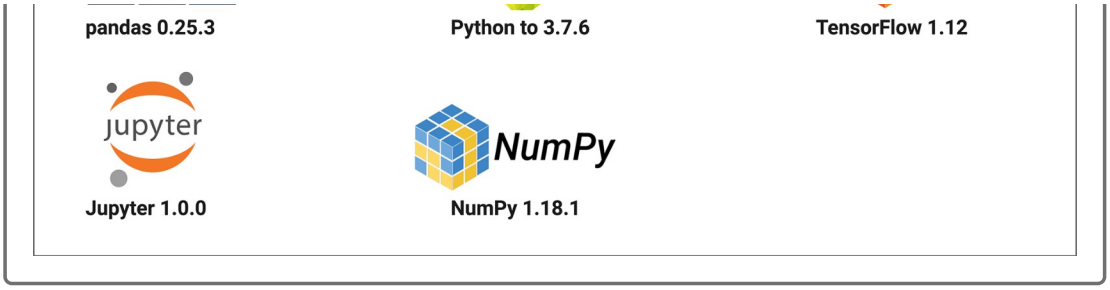
4.2.1 Create Your Development Environment

Maria has asked you to create the same development environment that other analysts on the team have on their computers. This will ensure that the whole team is using the same software version and that there will not be any problems running different versions of Python or other software packages.

Creating a development environment is a common practice for programmers. A **development environment,** or **virtual environment,** is an isolated, working copy of the coding environment that programmers use to install different versions of software packages for specific projects. Some projects may require the latest versions of software, and some may require older versions.





A virtual environment is like a sandbox that contains the toys you want to play with for specific activities. We'll create a virtual environment that includes the modules and packages we need for our Python projects. Unlike a sandbox at a playground, you can leave this virtual sandbox anytime and all the toys will still be there when you come back.

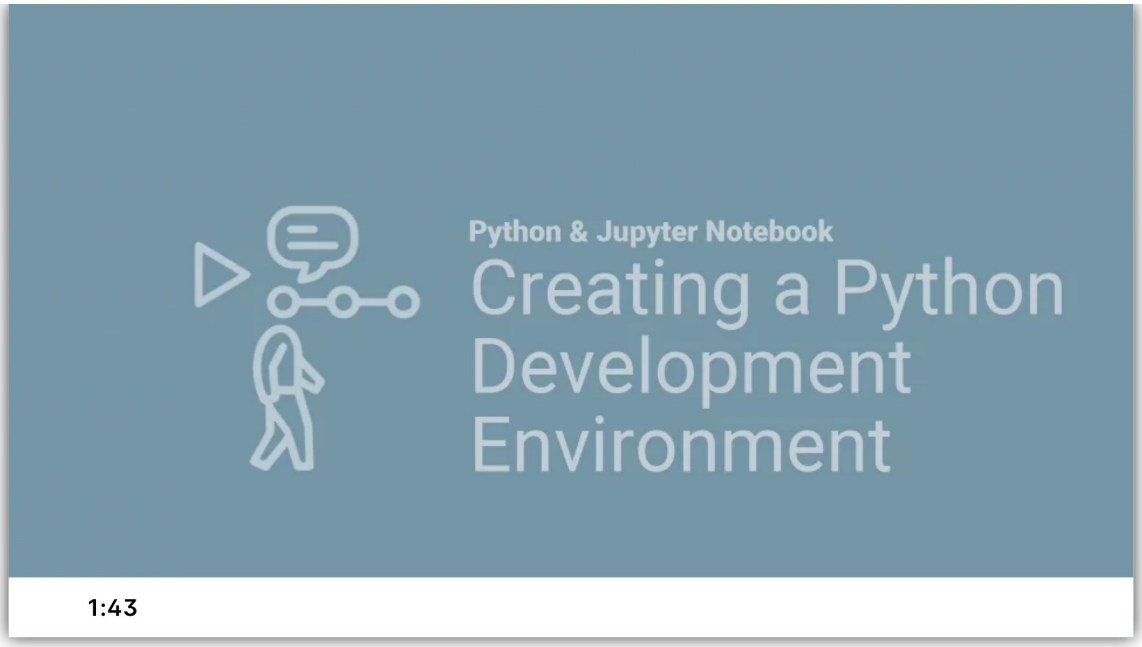
In the virtual environment, we can switch or move between environments, which is called **activating the environment**. When we activate the virtual environment, we know that we have the right packages for our projects.

We're going to create a virtual environment that runs Python 3.7 and contains all the Anaconda packages that work with the latest version of Python 3.7. Note that some of these packages may be older versions than the ones you installed with Anaconda. This is because for this project, Maria's team needs to use the Anaconda packages that work with the latest version of Python 3.7.

The following videos walk you through the process of creating a virtual environment. Watch the one that corresponds to your operating system. You can also follow along with the written directions provided.

Check out the macOS instructions below, or jump to the **Windows instructions**.

Create a Development Environment on macOS



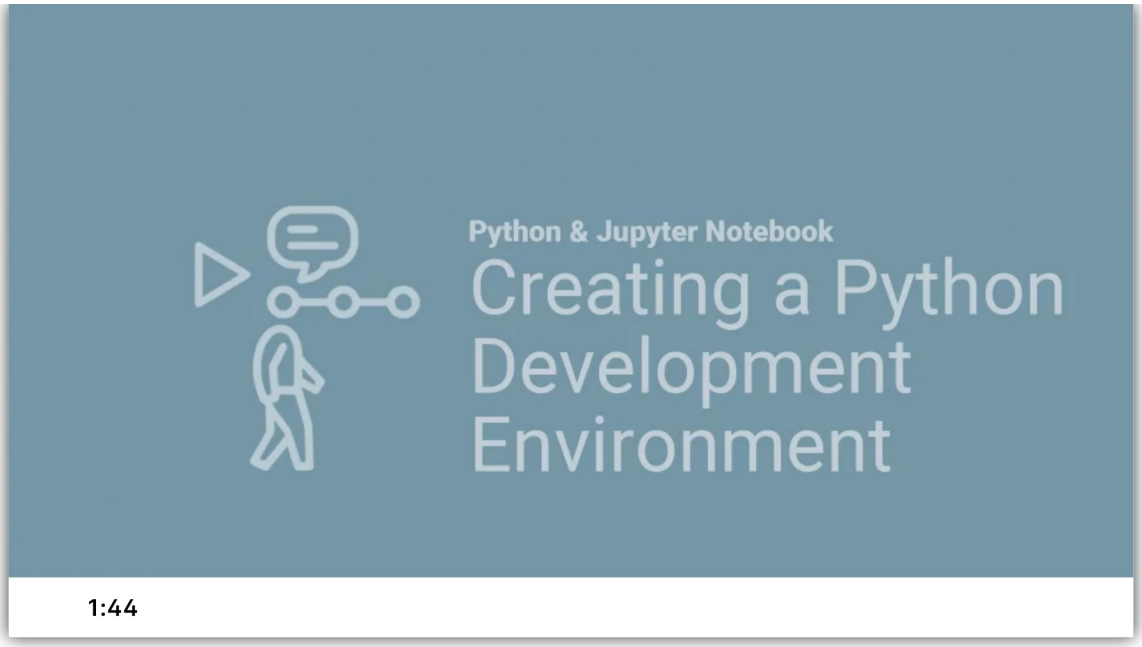
To see all of your conda environments, type `conda info --envs` in the command line and press Enter. You should have at least two conda environments: "base" and "PythonData."

```
# conda environments:
#
base                  /Users/<computer_name>/anaconda3
PythonData            /Users/<computer_name>/anaconda3/envs/PythonData
```

NOTE

> For more information, read the **documentation for creating a development environment (https://conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html#creating-an-environment-with-commands)** .

Create a Development Environment on Windows



To see all of your conda environments, type `conda info --envs` in the Anaconda Prompt and press Enter. You should have at least two conda environments: "base" and "PythonData."

```
# conda environments:
#
base                  /Users/<computer_name>/anaconda3
PythonData            /Users/<computer_name>/anaconda3/envs/PythonData
```

NOTE

> For more information, read the **documentation for creating a development environment (https://conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html#creating-an-environment-with-commands)** .