Debugging

It is one of the most basic skills of doing any programming. For problems that arise while writing Python code, I find the following steps very useful.

Before asking for help, try these steps first.

If it's a Python error:

The problem is related to your code specifically.

- 1. Separate your code into individual lines and run each one individually. When you know which line is giving you trouble, separate the line into all the separate operations.
- 2. To make sure it's not specific to the notebook, try to run the code in an ipython interpreter.
- 3. Look up the documentation for the function or method you are using.
- 4. If nothing makes sense, google your specific error and read any answers.

Last Resort: Figure out another way to do it.

If it's a package/computer error:

The problem is related to how Python or a package is installed.

- 1. Determine which package specifically is giving you errors.
- 2. Create a new environment with only that package.
 - a. This checks if it is conflicting with other packages.
- 3. Google the package version and the type of problem you are having.
 - a. This often leads to an open issue on their GitHub that can tell you how to resolve it.
- 4. Install the same environment on another computer (like the department remote desktop) and see if it works there.

Last Resort: make a binder inside our repository or use Google Colab