Week 4: Thursday

Importing Packages

Libraries

What are Libraries/Modules?

- A library is a collection of functions and methods that allows you to perform many actions without writing your code.
- Python has a large standard library, commonly referred to as the Python Standard Library.
- There are also many third-party libraries available that can be installed using package managers like `pip`.

Understanding Open Source

- The code is freely available to copy, modify, and distribute.
- The code is usually maintained by a community of developers.
- Pandas source code

Installing Packages

- Use `pip` to install packages.
- `pip install pandas`
- Do this from the command line or terminal.
- if you have anaconda installed, you can use `conda install pandas`

Installing Packages, Google Colab

- In Google Colab, you can install packages using `!pip install pandas`
- Most of the popular packages are already installed in Google Colab.

Importing Packages

- Use the `import` statement to import a package.
- `import pandas`
- The import is how we access the functions and classes in the package.

Example

```python
# my_module.py
def my_function():
    print("Hello from my function")

def my_other_function():
    print("Hello from my other function")
```

```python
# main.py
import my_module

my_module.my_function()
# outputs "Hello from my function"
```

Importing Packages, Aliasing

- You can alias the package name to make it easier to use.
- `import pandas as pd`

```python
import pandas as pd

data = pd.DataFrame()
```