Python Series

Tutorial 1 - Python Environments

What is an Environment?

A Python environment is an isolated workspace that contains its own dependencies, libraries, and settings, ensuring that projects run consistently without conflicts between different package versions.

Why is an Environment Required?

Python projects often require multiple libraries, which are frequently updated. To avoid version conflicts and ensure project stability, it is best practice to create a new environment for each project. For this setup, we will be using Python version 3.12.

Creating a Python Environment

Run the following command to create a new environment:
conda create -p venv python==3.12

- `conda create` → Creates a new Conda environment.
- `-p venv` → Specifies the path and name of the environment (here, `venv`).
- `python==3.12` → Installs Python version 3.12 in the environment.

When you use `conda create`, certain basic libraries are installed by default, such as:
`pip, setuptools, SQLite, zlib`, etc.

Activating the Environment

After creating the environment, you need to activate it: conda activate venv/

Once activated, you can create and run any Python file within this environment without worrying about library conflicts.