**Python VirtualEnvironments**

**What are virtual environemnts?**

Virtual environments are isolated development environment where packages can be installed locally. The environment isolation help prevent conflicts with installed dependencies. Python besty practices are to develop within a virtual environment

**Installation:**

From the terminal

pip3 install virtualenv

**Create Virtual Environment:**

Create a virtual environment:

virtualenv env

**Use Virtual Environment**

Use the created virtual environment:

source env/bin/activate

**Install packages**

Once you have sourced a virtual environment you should see it as part of your current path in the working directory. You can now install whatever packages you want to this local environment. For example:

pip3 install pandas

**Get All Locally Installed Packages**

With the virtual environment active, simply type

pip3 freeze > requirements.txt

Freeze gets a list of all python packages installed I the environment, > requirements.txt then writes these requirements to a text file. The benefit of this approach is for sharing python projects on github. The packages for a repo are stored in requirements.txt. All of these dependencies can be installed with

pip3 install -r requirements.txt