**SHARING YOUR NOTEBOOKS *LIVE* ON MYBINDER.ORG**

**Step 1 - Setup a virtual environment**

* Open a **command** window (**Terminal** window on Mac).
* Navigate to the Documents folder (or any other).
* Make a new virtual environment called my\_nbooks. Enter: **python -m venv my\_nbooks**
* To **activate** it, Enter: **my\_nbooks\Scripts\activate**
* The command prompt will now begin with **(my\_nbooks)**.
* Install some python packages (modules) commonly used in data science.
  + Enter: **pip install numpy pandas seaborn matplotlib scipy scikit-learn** **pip**
* To see the added packages and other dependencies added, Enter: **pip list**
* Now make the **requirements.txt** file that lists these packages for binder:
  + Enter: **pip list --format=freeze > requirements.txt**
* Add **runtime.txt** with one line naming your Python version:
  + **python-x.x** For example: **python-3.9**
* Add the notebook files, CSVs, and images that you wish to display in binder.
* Deactivate the environment. Enter: **Scripts\deactivate**

**Step 2 – github setup**

* Browse to github.com.
* Create a github account if you don’t already have one.
* Create a **new repository** for your notebooks.
* Choose **my\_nbooks** as the **name** for your repo.
* Enter a brief **Description**.
* Make sure it is **Public**.
* Check off “Add a **README** file”.
* Click the **Create repository** button.
* Click the **Add file** button and select **Upload files**.
* Drag and drop the files you wish to share on **mybinder.org**.
* Be sure to include **requirements.txt**, **runtime.txt**, **CSVs**, **images** etc.
* Click **Commit changes** to upload the files to your repo’s **main branch**.

**Step3 – mybinder.org setup**

* Browse to <https://mybinder.org>
* Copy-paste the **URL** of your repo into the **GitHub repo name or URL** box.
* Enter **main** for the **Git Ref** (branch,tag,or commit) box.
* Ignore Path to a notebook file. Click the orange **launch** button.
* A **progress bar** will appear as your repo is loading. Wait for it.
* Eventually, JupyterLab will appear in a new browser window.
* Your notebooks should run “live” (which is awesome).
* You can **edit/delete/insert cells** as desired. You can’t break anything.
* Your repo will appear like new every time you load it in binder.

**Potential Issues**

* **Errors** will occur unless your repo has a **requirements.txt** file that specifies the dependencies (modules) your notebooks need.
* Your repo should also contain the needed **CSVs, images, etc.**
* Was your virtual environment activated when you made requirements.txt? It ***must*** be.

**References:**

<https://the-turing-way.netlify.app/communication/binder/zero-to-binder.html>

<https://www.dataquest.io/blog/a-complete-guide-to-python-virtual-environments/>