## **Instructions for Setup, Execution, and Usage**

### **File Execution Order**

To ensure a smooth workflow, please run the following files in the specified order:

1. **7390 Final Project 1-1\_Hu Liu**
2. **7390 Final Project 1-2\_Hu Liu**
3. **7390 Final Project 1-3\_Hu Liu**

* Part 1-1 handles dataset loading and model initialization.
* Part 1-2 performs model training and result generation.
* Part 1-3 is responsible for frontend generation and display.

During execution of 1-1, you will see a code cell that downloads the JSON file named used\_instructions.json after loading the seed dataset. Make sure to download this file to your local machine, as it will be required in the next step.

On 1-2, after visualizing the DataFrame with pandas, a cell will prompt you to upload the used\_instructions.json file. This step must be completed manually. If the file is not uploaded, the script will pause and fail to continue.

On 1-3, after running all the cells, the frontend display link will be generated in the last cell’s output. The link is usually like: <https://attributes-bestsellers-sum-lanka.trycloudflare.com>. However, link is invalid until all the codes in 1-3 executes completely. Please run all the code, and wait until the link appears on the output area.

### **Runtime Environment**

Due to the heavy use of GPU-based computations, it is strongly recommended to run all code on Google Colab rather than local Jupyter notebooks—unless your machine is equipped with adequate GPU resources.

Before running any code in Colab:

* Navigate to **Runtime > Change runtime type**
* Select **GPU**, preferably **L4 GPU** if available

The entire workflow has been tested multiple times using this setup, and it is confirmed to run smoothly.