In this engrossing assignment you will clean up some data. This is a group project: we will divvy into groups in class.

* You have been given a CSV file that logs fuel purchases. There is a column header row to generally explain the data.
* Here are the minimum cleanup tasks you should perform:
  + The Gross Price needs to be exactly 2 decimal places
  + There are duplicate rows that should be deleted
  + Some drivers bought Pepsi rather than fuel: those rows should be deleted and written to a new CSV file called dataAnomalies.CSV in a folder called Data in the VS project. The Data folder is not a Python package.
  + There are some addresses with no zip code. Those rows need to be updated. You can hook into a free API at <https://app.zipcodebase.com> to look up a valid zip code for those cities. Some cities have multiple valid zip codes: just pick one from the data returned from the API call.
* Write your cleaned-up data to cleanedData.CSV in a folder called Data in the VS project.
* Your project should be architected as several logically designed classes, in .py modules, and an entry point, in main.py. In the classes are all the code to perform the work described above. Your entry point code will instantiate your class(es) and invoke one or more methods to perform the work. Use packages as appropriate.

Note this: your code must deal with the CSV data in such a way that any other similar CSV file can be processed successfully. On other words, you cannot assume that row X always has Pepsi in it, etc. You can assume columns according to the column header row in the CSV file, but you cannot assume particular rows.

Assumptions you may safely make:

1. Commas separate the columns unless the comma is part of the data, then that column is enclosed in quotes to hide those commas.

2. The file can be opened in Excel, NotePad++, etc., for study.

3. It’s OK to use generative AI to help you with code writing and such.

Be sure to document your code so I can follow what you’re up to.

You will need to expose your API key to me and to GitHub when you submit your project. I’m mostly trustworthy. Be sure the key still has some uses. Be sure the entire project doesn’t crash if the API key fails.

Name the project according to our requirements. Use your group name rather than a UC 6+2.

Submit your submission as a URL to the (public) VS project repo on GitHub. All group members should have at least one meaningful commit.

The date of the last commit will be used to judge the assignment as on-time or late. I will import your VS project form your GitHub repo and grade it accordingly.

Deliverable: A link to a Github URL containing your teams’ repo.

Extra Credit: there are several other issues with the data. Some are unavoidable and some you may not notice. Document any of these issues in your project (make my life easy) and you will receive EC points on the assignment.