Part 2: Pokemon Card API

Introduction
In this project, we decided to get creative in what API format to use. We've covered API's concerning sports teams, professor faculty, and weather, however this time we wanted to try something fun so we choose to base our API on the Iconic franchise pokemon! The goal of this API is to grab pokemon card data from wikipedia, putting it into the api and giving us information on the cards with all of its attributes in mind.

Description

We began by importing **bs4**, **pandas**, and **BeautifulSoup** to handle our data extraction and manipulation. Using a Wikipedia URL listing all Generation I Pokémon alongside the Pokémon TCG Developer API, we combined the two sources: Wikipedia provided each Pokémon's name, and the API returned corresponding card stats. After registering for a Pokémon API account, we inserted our unique key on line 31. Lines 34–40 then specify which card attributes to retrieve and append to our list.

During development, we encountered a hiccup: some card entries included gender symbols that broke our lookup routine. We solved this by stripping out those characters before querying. The remaining code parses and formats each field for consistency and readability. Finally, we aggregated the results into our target dictionary, converted it into a pandas DataFrame, and stored it in a SQLite database table.

Methodology

- Scraped pokemon card data from both Wiki and API
- Signed up for the API website to obtain our unique API key
- Made list's for the pokemon card stats
- Filtered out extra/incompatible information related to the cards
- Created individual DataFrames from the lists.
- Exported results to CSV files for documentation and further analysis.

Findings

- **Names**

- **Types**
- **Evolution Line**
- **Highest HP**
- **Highest Attack Power**

Discussion
After running the script, it generated and displayed detailed results for all 151 Generation I Pokémon. The command-line output provided a concise summary, while the accompanying CSV file contains the complete dataset. In the end, we successfully queried every piece of data for the original Pokémon roster—a truly nostalgic journey back to our childhood as we wrapped up this project!