Project proposal

Group 19

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During one of the lectures, we were working with a Pokémon API and we found that to be a very interesting subject, since we were all familiar with it. This motivated us to find some other interesting Pokémon API:s and see if anything seemed appealing to use for our project. We came across Pokémon TCG API and agreed to give it a try.

There are many factors that can affect a cards value, such as rarity, popularity, in-game viability. We want to discover which cards are the best and worst cards in consideration to its base stats and its cost.

Based on what is mentioned above, and a tip from Arend, we selected the question for our project to be; **Which Pokémon card has the best/worst base stats for its cost?**

To collect data on this topic we will use the Pokémon TCG API. The API allows users to fetch information about individual pokémon cards and their price on various marketplaces.

For analysing the collected data, we will iterate through the cards and compare their base stats with the card price. This will be performed using Python because of its ease of access as well as availability of statistical functions through external libraries.

We plan to visualize our findings using scatter plots for highlighting outliers that is both worst and best valued. We have not yet thought of all the plots that can/will be utilized.

AI-generated project proposal

Evaluating Value in Pokémon TCG: A Statistical Analysis of Card Stats vs. Cost

In the dynamic world of Pokémon Trading Card Game (TCG), determining the value of a card involves multiple factors including rarity, popularity, and in-game viability. This project seeks to analyze Pokémon cards to identify which offer the best and worst value in terms of their base stats relative to their market cost. Prompted by an interest sparked during a lecture and encouraged by insights from Arend, we formulated our research question: "What are the most and least cost-efficient Pokémon cards based on their base stats and market prices?"

Utilizing the Pokémon TCG API, we will collect data on individual cards' base stats and current market prices. Our analysis, conducted through Python, will employ statistical methods to compare base stats against cost, aiming to uncover patterns and outliers in card valuation. This approach allows us to leverage Python's robust libraries for data manipulation and statistical analysis.

To visualize our findings, we plan to use scatter plots to highlight cards that represent the best and worst values, identifying outliers and trends within the data. While scatter plots are our primary choice, we remain open to exploring other types of visualizations to best represent our data insights.

This project not only promises to reveal fascinating insights into the valuation of Pokémon TCG cards but also aims to provide the Pokémon TCG community with valuable information that could inform collecting and gameplay strategies. By pinpointing cost-efficient cards, players and collectors can make more informed decisions, potentially impacting the game's economy and how players engage with the card market.