# **Pokemon Card Game Simulation Analysis**

This application simulates two key aspects of a Pokemon Trading Card Game to optimize deck building:

## **Optimal Pokemon Count Analysis**

The CardGame class analyzes how many Pokemon cards should be included in a 60-card deck to maximize the probability of drawing at least one Pokemon in your opening hand. This is crucial because not having a Pokemon in your opening hand results in a mulligan.

The simulation:

* Tests Pokemon counts from 1 to 60
* Runs 10,000 simulations for each count
* Calculates the probability of drawing at least one Pokemon in a 7-card opening hand
* Provides clear visual feedback with color-coded console output

## **Charizard Brick Analysis**

The CharizardBrickSimulation class examines a specific problem in Charizard-focused decks: the risk of having all Rare Candy cards in the prize cards, making it impossible to evolve Charmeleon into Charizard.

This simulation:

* Tests Rare Candy counts from 1 to 4
* Runs 10,000 simulations for each count
* Calculates the probability of all Rare Candy cards ending up in the 6 prize cards
* Shows how different Rare Candy counts affect this "bricking" probability

This analysis helps competitive players make informed deck-building decisions by demonstrating the risks associated with different card ratios.

**OUTPUT:**

