Juan Villaman

03/16/2025

**Pokémon TCG Program**

**What is the Pokémon Trading Card Game?**

The Pokémon **T**rading **C**ard **G**ame, better known as Pokémon TCG, is an iconic board game that involves cards. These cards have special abilities and even have synergies with each other! While there are over 200,000 unique Pokémon cards, they can be divided into three simple categories: Pokémon cards, Trainer cards, and Energy cards. With these 3 types of cards, you and an opponent can battle each other until a win condition is met!

**What does the Pokémon TCG Program do?**

My Pokémon TCG program simulates a simplistic version of the Pokémon TCG. It is played in the terminal, which means it is entirely text-based (no physical cards unlike real life). This aspect of the game makes for interesting challenges, which required being proficient in using interfaces and polymorphism. These aspects allowed for the game to run nicely and made game logic easier to handle.

It all starts with the Card class. This is the most fundamental class to the program, as it allows for the creation of **unique** cards that make up the game. It then breaks down to the Pokémon, Energy, and Trainer classes. These classes contain the important aspects that those cards need to function properly within the game. Classes like Pikachu, Bill, and Fire inherit essential traits from their respective parent classes and incorporate their own abilities unique to them that are to be used in the game.

The second-most important class for this program is the Player class. This class initializes all the things a player needs to participate in the game. The player needs a deck, hand, prize pool, discard pile, active Pokémon, and a bench. This class also contains all the actions a player may take, and the logic for those actions are handled within this class as well. The actions a player may take during their turn is: attach an Energy card to a Pokémon, add a Pokémon to their bench from their hand, play a Trainer card, retreat a Pokémon to the bench and make another benched Pokémon active, and attack to end their turn.

Below are images showcasing what a Player can do during their turn, as well as the multiple win conditions being met!

**A screen shot of a computer

AI-generated content may be incorrect.The start of the game displays the instructions, as well as what a Player can do**

**This is what the Player’s boards look like, and Player turn order being determined by a coin toss**

**A screenshot of a computer

AI-generated content may be incorrect.**

**A screen shot of a game

AI-generated content may be incorrect.This is what a Player’s turn looks like**

**A black screen with white text

AI-generated content may be incorrect.Option 1: Attach Energy**

**Option 2: Add a Pokemon to the Bench (as you can see, Pikachu is added to the bench when the board is printed again)**

**A screenshot of a computer program

AI-generated content may be incorrect.**

**A screen shot of a computer

AI-generated content may be incorrect.Option 3: Play a Trainer card**

**A screen shot of a computer

AI-generated content may be incorrect.Option 4: Retreat Active Pokémon**

**Option 5: Attack. If the Pokémon does not have enough energy, the player will be prompted to attach more energy before attacking**

**A screen shot of a game

AI-generated content may be incorrect.**

**Option 5: Attack. First attack is chosen (energy has been attached to the Pokémon)**

**A screenshot of a video game

AI-generated content may be incorrect.**

**Option 5: Attack. Second attack is chosen. For the second attack to work, there must be at least one matching energy type attached. (energy has been attached Pokémon)**

**A screenshot of a computer

AI-generated content may be incorrect.**

**If the Player’s active Pokémon is knocked out by the opposing Player, they will be prompted to move a benched Pokémon to the active field**

**A screenshot of a computer

AI-generated content may be incorrect.**

**First Win Condition: Getting all your Prize Cards!**

**A screenshot of a computer

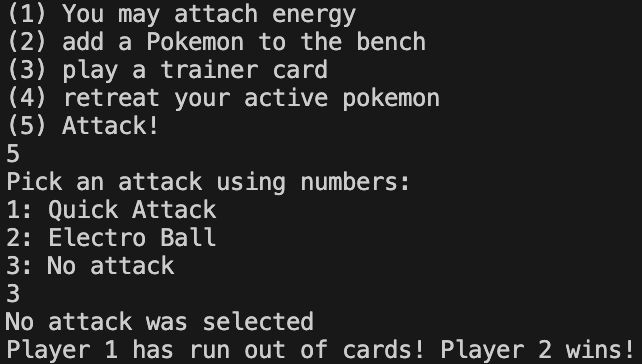
AI-generated content may be incorrect.**

**Second Win Condition: Player runs out of Pokémon in their hand and bench!**

**A screen shot of a computer

AI-generated content may be incorrect.**

**Third Win Condition: If the player’s deck is empty, the opposing player wins!**

****