50.051 Programming Language Concepts (Cohort 1 Group 8)

PokéVenture (TOPIC: GAMING)

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Overview

This project aims to create a game centered around the Pokédex, a text-based system to store and display Pokémon data. Players will be able to go on adventures to discover new Pokémon that they can add to their collection.

Problems

How to store data of each Pokémon (id, name, stats, ASCII art, description, etc) so they can be easily retrieved and displayed on the screen when required?

How to save and load the list of Pokémon encountered, so players can save their progress and resume between different sessions?

How to switch between game states (start, view, adventure, etc)?

Expected Inputs and Outputs

Inputs: .txt and .csv

- 1. .txt input: Each individual Pokémon will have a .txt file with its associated ASCII art
- 2. .csv input: One .csv file will store data (id, name, stats, description) for all Pokémon (including undiscovered ones)
- 3. .csv input: One .csv file will store data (id, seen_flag) for whether a Pokémon has been discovered

Outputs: .txt

1. .txt output: A text-based Pokémon card can be generated and saved as a .txt file

Deliverables

Features

- 1. Go on adventures to discover new Pokémon and save them to the Pokédex: store using arrays/pointers, and atexit(), save to file.
- 2. Load list of discovered Pokémon in Pokédex: parse .csv file when program starts
- 3. View list of Pokémon discovered inside Pokédex: use of FSM to control display state
- 4. View information and ASCII art of individual Pokémon inside Pokédex

Additional Features (to implement depending on progress)

- 1. Pokémon Battle (adventures but upgraded)
- 2. Add new custom Pokémon: store new Pokémon data

