Pokémon Battle Simulation

Functional Specification
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Overview

Pokémon Battle Simulation is a service that trains users in the art of Pokémon battling. The objective of this simulation is to help newbs learn to battle and Pokémon trainers to hone their skills. The program has two parts: instructions and practice.

Scenarios

Scenario 1: Misty.
Misty just bought her first ticket to board the SS Anne and will be heading to Kanto soon. Misty has never used Pokémon and is apprehensive about going to a world completely filled with Pokémon. However, in the back of her mind she remembers hearing about a battle simulator from her professor. She grabs her computer and heads out the door.

While, relaxing on the cruise she starts up the simulation. On the screen is Professor Oak there to greet her. Misty completely lost on where to begin scans the application wildly. She spots the instructions to the side and begins to scroll through Professor Oak's dialog. After listening to his lengthy speech, Misty feels she is ready to have her first Pokémon battle (well at least a simulation).

When Oak gives her the option Misty chooses to battle a computer player. Out of a list of six Pokémon, Misty chooses to use Blastoise (as water is her favorite type). The battle begins. Misty can see her Blastoise in front of her and the opponent's Charizard to the right. Since she just learned that water is super effective against fire, she arrows over to the move Hydro Pump. There's a problem! Hydro Pump missed. Next it is foe Charizard's turn. Charizard unleashes a powerful Fire Blast but to Misty's luck, it is not very effective. Misty tries again with Hydro Pump. This time it hits with a critical hit. Charizard faints in one hit!

Misty is then declared the winner. When asked if she wants to play again, she replies with "No. I think I am ready for the Pokémon world!" and chooses the option to quit.

Scenario 2: Brock and Ash
Brock and Ash are best friends. They do everything together. One day, Brock gets Pokémon blue version and begins playing it obsessively. Brock plays so much of the game that he forgets all about Ash. About a week later Ash comes over to visit Brock. His obsessed friend challenges Ash to a Pokémon battle. To his dismay however, Ash doesn't seem to own a Pokémon version. Brock doesn't have the patience to wait for Ash to buy, learn, and train Pokémon so Brock suggests they use the Pokémon Battle Simulation.

Brock hands the simulator to Ash who immediately begins listening to Prof. Oak. After hearing the instructions Ash is still concerned he does not understand the instructions. He chooses the 'watch a battle' option from the options panel. Immediately, two computers begin a Pokémon battle. One of the

computers has a Venusaur while the other has an Alakazam. Ash watches carefully as the computers go back and forth attacking the other. He pays careful attention to the messages displayed after each attack. Once Alakazam wins with a final psychic blast, Ash is prompted to play again.

Although Ash is still not completely versed in the rules, he chooses to play again. This time Brock has Ash choose the option for player vs player. Each chooses their respective Pokémon. Ash picks Primeape and Brock picks Scyther. The battle begins again. This time Ash and Brock switch back and forth between choosing attacks. Eventually Brock drops Primeape's HP to 0 and the battle is over.

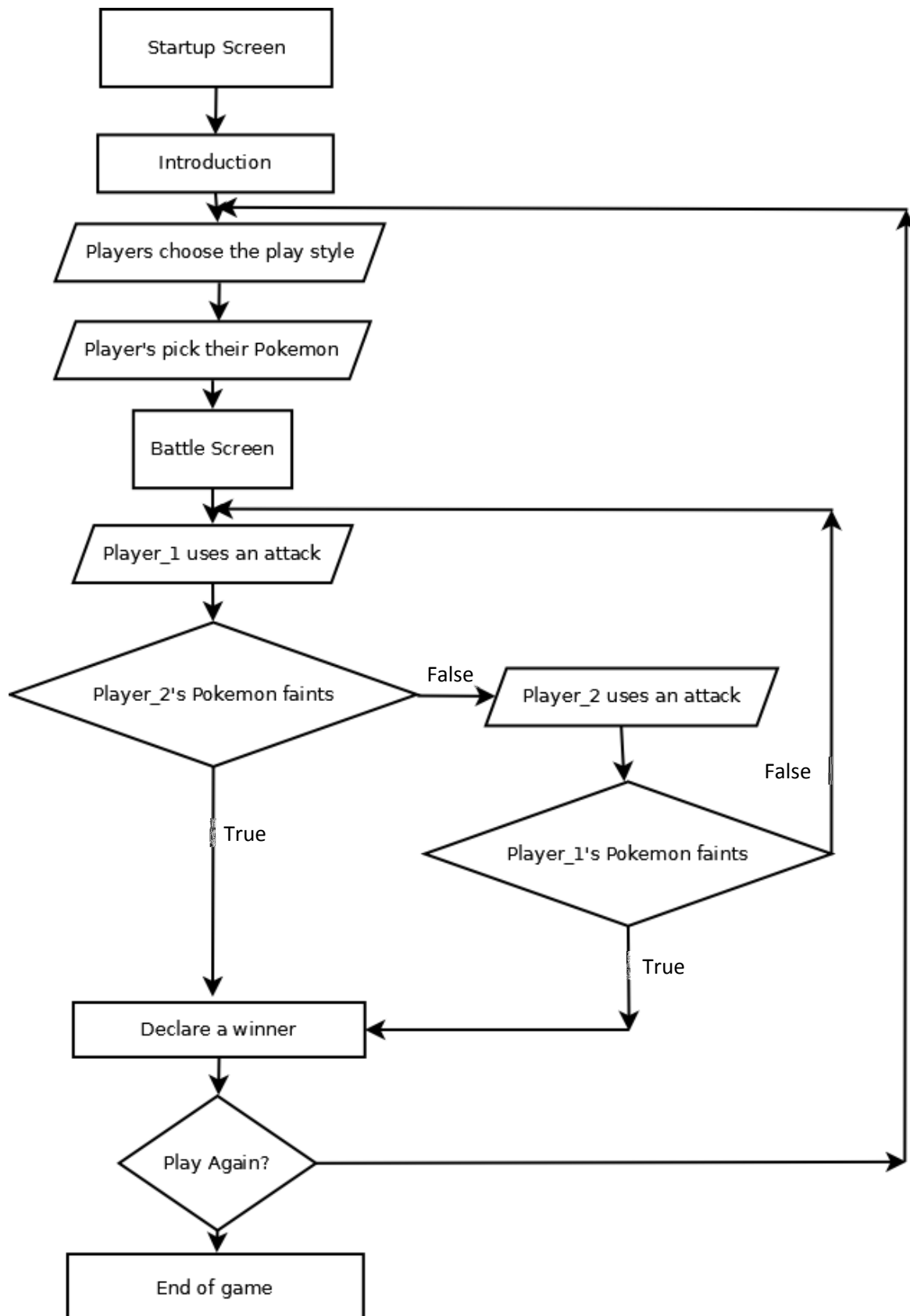Even though Ash lost, the simulation and the rivalry convince Ash to go buy Pokémon red version and begin his Pokémon journey.
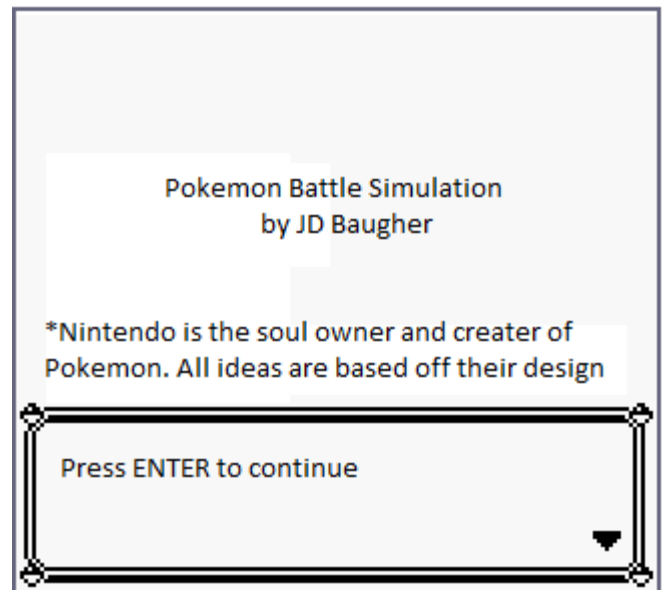

Non Goals

This Simulation will not:
- Allow over world access
- Allow full battle commands (items, Pokémon stats, run)
- Copy directly all of the Pokémon animations
- Give every bit of valuable information to the user
- Allow full access to all 150 Pokémon
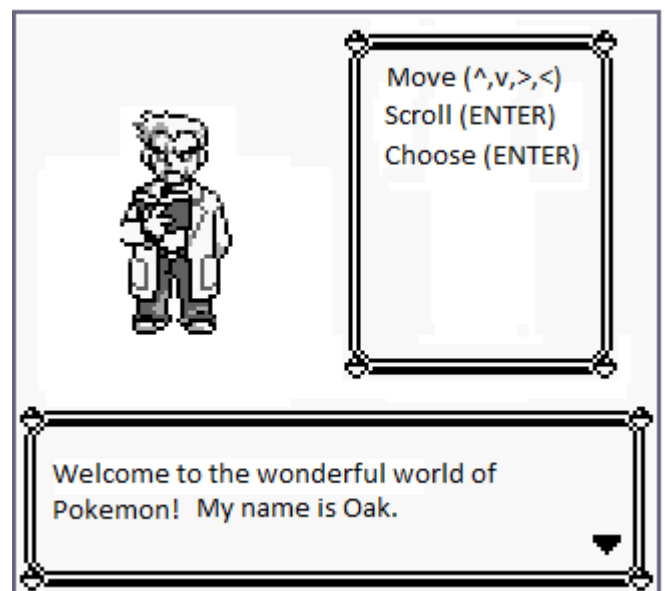- By any means replace the Pokémon games

Flowchart

```
                    ┌──────────────────────┐
                    │   Startup Screen     │
                    └──────────┬───────────┘
                               │
                               ▼
                    ┌──────────────────────┐
                    │    Introduction      │
                    └──────────┬───────────┘
                               │
                               ▼
                 /─────────────────────────/
                / Players choose the play style /
               /─────────────────────────/
                               │
                               ▼
                 /─────────────────────────/
                / Player's pick their Pokemon /
               /─────────────────────────/
                               │
                               ▼
                    ┌──────────────────────┐
                    │    Battle Screen     │
                    └──────────┬───────────┘
                               │
                               ▼
                 /─────────────────────────/
                /  Player_1 uses an attack  /
               /─────────────────────────/
                               │
                               ▼
              ◇──────────────────────────◇
              │  Player_2's Pokemon faints  │ ──False──▶  / Player_2 uses an attack /
              ◇──────────────────────────◇
                          │ True
                          ▼
              ┌──────────────────────┐
              │    Declare a winner  │
              └──────────┬───────────┘
                         │
                         ▼
                  ◇─────────────◇
                  │  Play Again?  │
                  ◇──────┬──────◇
                         │
                         ▼
              ┌──────────────────────┐
              │     End of game      │
              └──────────────────────┘
```

- **False**: Player_2 uses an attack → **Player_1's Pokemon faints**
- **False**: loops back
- **True**: Player_1's Pokemon faints → Declare a winner

Screen Specs

This is the startup screen that displays the title of the game and copy rights.

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by JD Baugher

*Nintendo is the soul owner and creater of Pokemon. All ideas are based off their design

Press ENTER to continue

Prof. Oak will greet the player and present the instructions. This is where Pokémon will be explained. Oak will then explain how to battle. Lastly, strategies will be given to help win.
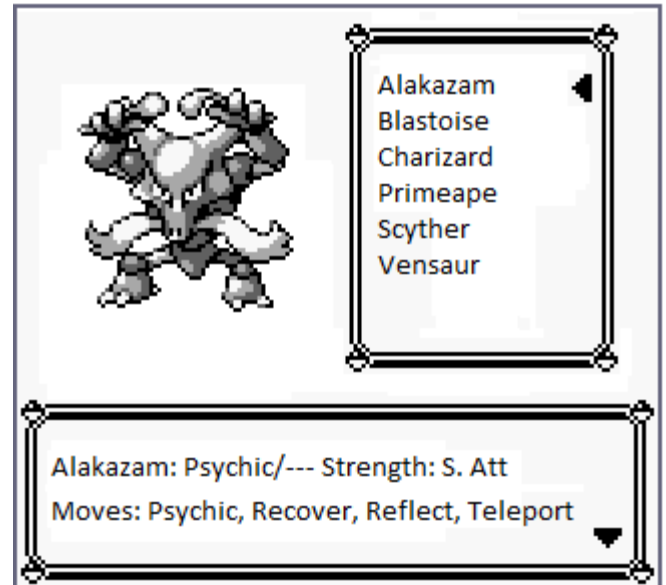
Move (^,v,>,<)
Scroll (ENTER)
Choose (ENTER)

Welcome to the wonderful world of Pokemon! My name is Oak.

Oak will then give the player a choice of play style.
1. Watch – computer vs computer
2. Battle – player vs computer
3. PVP – player vs player

Watch
Player vs Comp
Player vs Player

Choose your style of play.

...

Once the play style is chosen both players can choose their Pokémon. There are six choices, each with a different type, move set, and strength.

Alakazam
Blastoise
Charizard
Primeape
Scyther
Vensaur

Alakazam: Psychic/--- Strength: S. Att
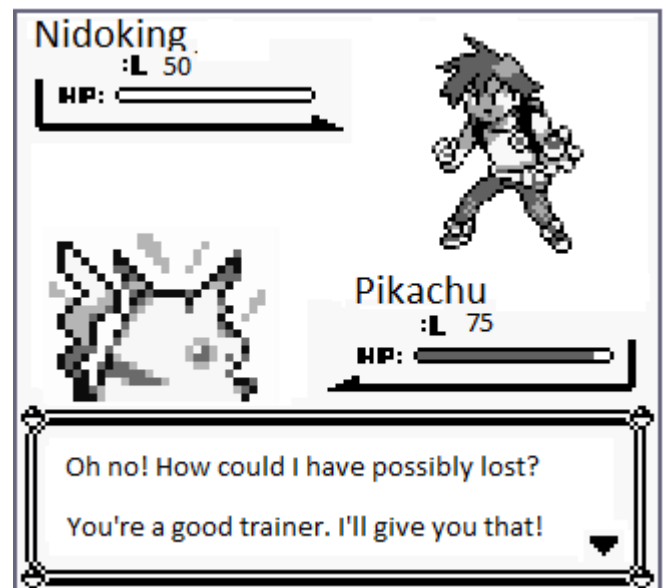Moves: Psychic, Recover, Reflect, Teleport

Next players will take turns choosing attacks. Attacks have a certain power, accuracy, and elemental attribute. Using these attributes damage is calculated and HP is removed from the HP bars.

Damage is determined based on attack/special attack, defense/special defense, and level.
- Attacks of the same type as the user deal 1.5x more damage.
- Attacks that are super effective against the opponent's Pokémon deal 2x damage.
- Attacks that are not very effective against the Opponent's Pokémon deal .5x damage
- Critical hits deal 2x more damage

Nidoking
:L 50
HP:

Pikachu
:L 75
HP:

Thunder   ▶ Surf
Quick Attack   Double Team
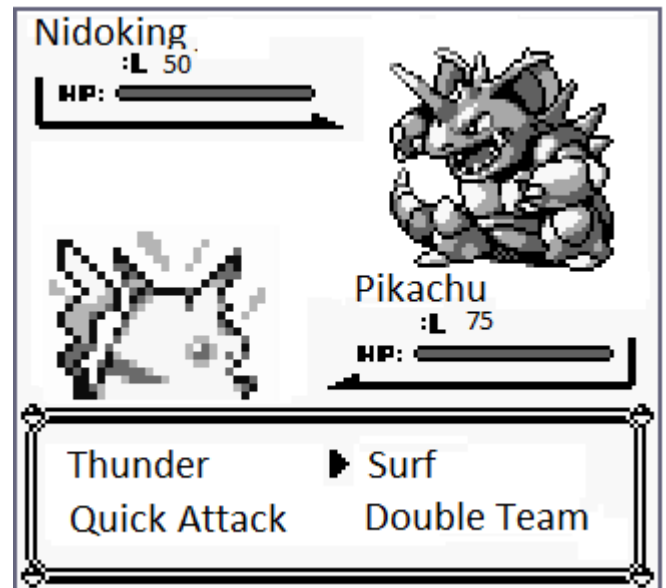
When either player's Pokémon has lost all of its HP the battle is over. The winner is then declared.

Nidoking
:L 50
HP:

Pikachu
:L 75
HP:

Oh no! How could I have possibly lost?

You're a good trainer. I'll give you that!

Oak will ask if the player would like to play again. If the player says:
- YES – go back to play style screen
- NO – quit the game (next screen)

An ending screen to thank the player for playing. An Easter egg is in the background; Pokémon 000 MissingNO.