

# AI 2001-01: Final Project

## PokeBattLES – Trading Card Expert System

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### Abstract

In this project we create a trading card battling system, named **PokeBattLES** inspired by Pokémon and popular media “memes”. The project uses Pyknow as a Knowledge Engine and Flask as the hosting web service. The expert system uses Rule-Based Expert System concepts and includes rules relating to:

- Minion Types handling interactions between types such as Fire, Water, Electric, Grass, Rock, and Legendary.
- Buffs and de-buffs handling interactions resulting from Energy Cards.
- Battle Damage handling including attack-attack, attack-defense, and defense-attack cases.
- Win conditions.
- Gameplay update scenario thresholds such as HP threshold to allow player handicap using legendary minions.

For the gameplay, users have ability to select a set of health points and can interact with the expert system to play the game and get explanations on how the system behaves through each turn receiving feedback relating to game progression.

The knowledge data was gathered from: <https://www.kaggle.com/abcsds/pokemon>

The core logic and all assets are available at our GitHub: <https://github.com/tejas1794/PokeBattLES>

The game is deployed on Azure: <https://pokebattles.azurewebsites.net/>