

POKEMON PRO

Project Brief: Top Trumps

In this project you'll create a small game where players compare stats, similar to the Top Trumps card game. The basic flow of the games is:

- 1. You are given a random card with different stats*
- 2. You select one of the card's stats*
- 3. Another random card is selected for your opponent (the computer)*
- 4. The stats of the two cards are compared*
- 5. The player with the stat higher than their opponent wins*

Required Tasks

These are the required tasks for this project. You should aim to complete these tasks before adding your own ideas to the project.

- 1. Generate a random number between 1 and 151 to use as the Pokemon ID number*
- 2. Using the Pokemon API get a Pokemon based on its ID number*
- 3. Create a dictionary that contains the returned Pokemon's name, id, height and weight (★ <https://pokeapi.co/>)*
- 4. Get a random Pokemon for the player and another for their opponent*
- 5. Ask the user which stat they want to use (id, height or weight)*
- 6. Compare the player's and opponent's Pokemon on the chosen stat to decide who wins*

Ideas for Extending the Project

Here are a few ideas for extending the project beyond the required tasks. These ideas are just suggestions, feel free to come up with your own ideas and extend the program however you want.

- Use different stats for the Pokemon from the API*
- Get multiple random Pokemon and let the player decide which one that they want to use*
- Play multiple rounds and record the outcome of each round. The player with most number of rounds won, wins the game*
- Allow the opponent (computer) to choose a stat that they would like to compare*
- Record high scores for players and store them in a file*
- Use a different API (see suggestions below)*

ROLES & TASKS

Katie - talking part of presentation, start of game (choosing pokemons)

Syeda - channel on Slack, graphics

Katarina - statistics, main game play, strategic planning of choose, highscore stats, showing part of presentation

IDEAS

- Closer to normal game - 5 cards on bench, play till game over

- Graphic element
- Schema of program (UML)
- Check statistics of the dataset
- Decide game mechanics
- Random generator - safeguard on the duplicates
- We can add pokemon characteristics (<https://pokeapi.co/docs/v2#characteristics>)

RULES OF GAME

- Choose or get 5 cards
- Display statistics
- Choose your active card
- Graphical pictures of battling cards
- Battle - HP / attack / defence
- New HP = HP - (attack-defence), defence does not regenerate
- Both attacking/defending

MOSCOW

MUST - base requirements

SHOULD - proper game

COULD - player strategy, graphics (GUI)

WON'T - evolvement, animations, characteristics, different API (don't content sufficient numeric data)

PRESENTATION STRUCTURE - 10min

- Showcase of the game
- Development process
- Individual presentations incl main challenges
- Q&A