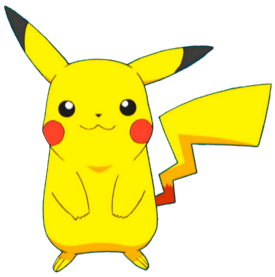
University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: 1

Date: Oct. 8, 2021

Group Number: 84



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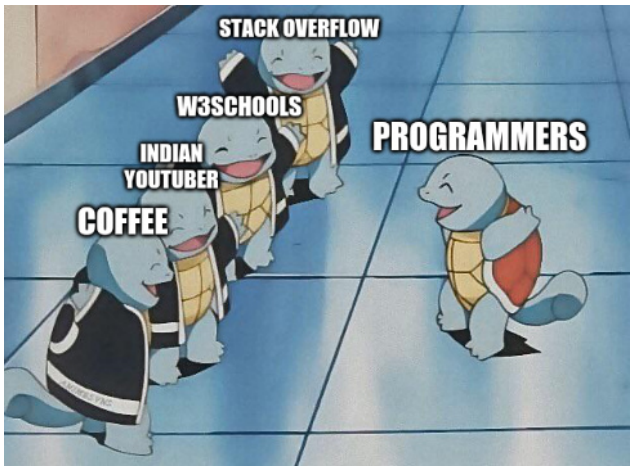
By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Project Description

Our project looks into Pokémon[1] and the digital storage system utilized within the video games. Using the vast array of Pokémon species and regions requires the efficient storage and access of data. This project will make use of a system capable of storing a trainer's Pokemon, as well as exploring important and identifying information associated with them.



Database Specifications

By definition, a database is an organized collection of related data usually stored on disk which has entities and relationships. The purpose of our database is to store, query, and update data on Pokemon while authenticating users' on data access. Databases allow us to build relationships between data -- it provides functionality for quick analytics towards end-users in a very simple way to use. Using its organized structure allows us to build applications quickly and efficiently.

The main user of our database will be the Pokémon trainer, who uses the system to store their caught Pokemon. While the trainer will be able to view information about themselves and their Pokemon in the system, they cannot change any data associated with the Pokemon, except for adding and removing them entirely. The database will keep track of various pieces of info, such as the Pokemon's abilities, location they were initially caught in, items they may hold and their species, as well as offer some description of them.

[1] © 2021 Pokémon. © 1995–2021 Nintendo/Creatures Inc./GAME FREAK inc. Pokémon and Pokémon character names are trademarks of Nintendo.

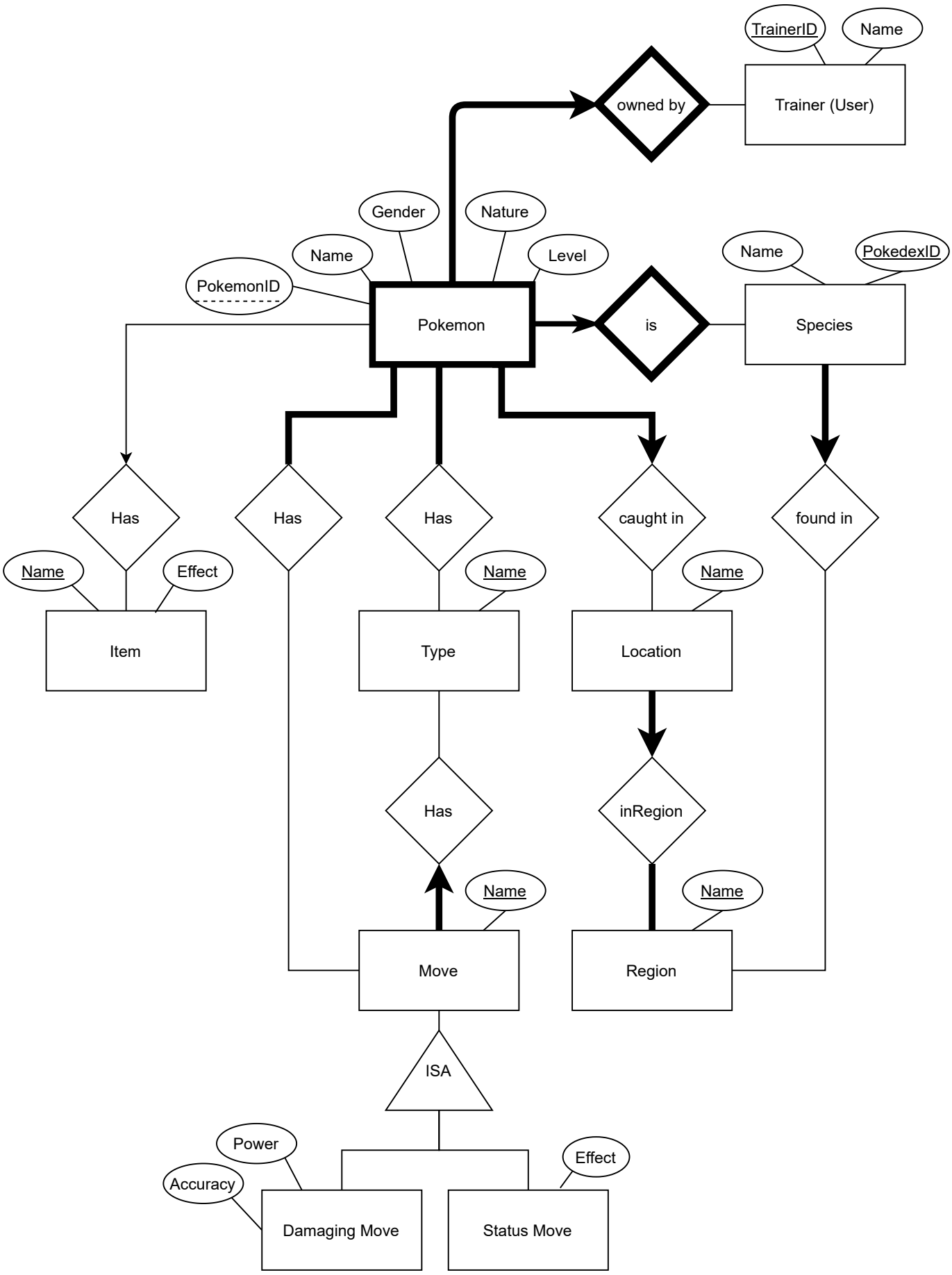
Application Platform[2]

The platform will be using a **MySQL**-based database with **NodeJS** as the backend server. Frontend will be built using **React** using **Material UI** components. Backend and Frontend instances will be containerized in a **Docker** image for easy deployment across multiple cloud platforms. If this architecture isn't suitable for hosting on the UBC CPSC Department servers, this can be hosted cheaply using **Google Cloud Run** or **Heroku**.

ER Diagram

(see next page)

[2] Subject to change


TrainerID
Name
owned by
Trainer (User)
Gender
Nature
Name
Level
PokemonID
Pokemon
is
Name
PokedexID
Species
Has
Has
Has
caught in
found in
Name
Effect
Name
Name
Item
Type
Location
Has
inRegion
Name
Name
Move
Region
ISA
Power
Accuracy
Effect
Damaging Move
Status Move