

## CPSC 304 Project Cover Page

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Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Matthew Smith	51209682	v1d5r	magsubc@student.ubc.ca
Aman Prakash	88693502	11u5t	amanprakashburnett@gmail.com
Danial Jaber	15766819	c1t4e	valentino.jaber@live.com

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.

# 1 Project Description

## 1.1 Domain of the Application

The domain of our proposed application is Pokémon management. This domain mainly pertains to main-series Pokémon game playthroughs. Specifically, when a user is playing a Pokémon game, they might desire to track the traits and details of their currently caught Pokémon, as well as search what other Pokémon are available to them based off of their current in-game progress. In essence, our application aims to serve as a thorough Pokédex and encyclopedia for a user's playthrough.

## 1.2 Aspects of the Domain in the Database

There are two main aspects of this domain that we aim to model in our database.

1. *Wild Pokémon*: As there are hundreds of Pokémon to catch within a given Pokémon game, tracking abstract wild Pokémon will be useful for the user to search locations in which they can capture certain members that they might want to add to their team.
2. *Captured Pokémon*: After capturing a Pokémon, it will be useful for a user to track the specific details and stats related to this Pokémon. As certain Pokémon compliment each other in a team-setting, this will aid in a user's ability to make choices related to their team's composition.

Our mission is akin to real-life situations such as a field guide where people collect information on different plants, animals, insects, and birds that they encounter in the outside world.

# 2 Application Platform

We plan on using the following tech stack:

1. *Department-provided Oracle*: Given our team's lack of experience with DMBS's, we decided to use the course's premier and most-recommended option for our DMBS.
2. *Python/Django*: Given some of our group's experience with Python, we have elected to use Django (which has integrated support for Oracle) for the backend of our application.
3. *Javascript/React.js*: There is some flexibility in which front-end framework we plan to use, but React is currently the frontrunner option due to industry demand. Other candidates include Svelte, Vue, or Angular. In any case, we will use Javascript for the front-end of our application.

### 3 ER Diagram

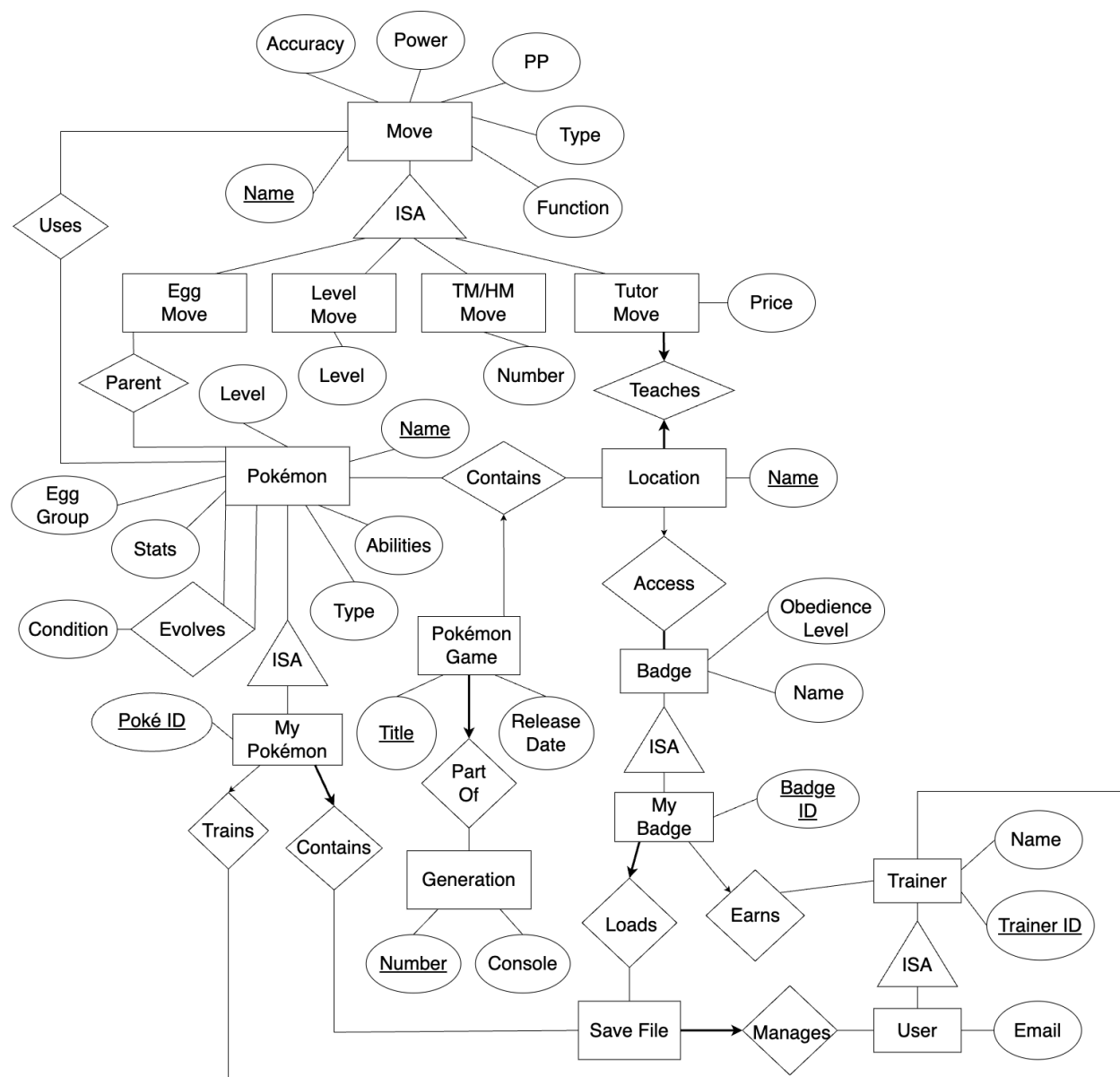


Figure 1: An entity-relationship diagram for the database proposed for our project.

Aspects of the project description are present in our ER diagram. Notably, a user has save files in which store their Pokémon, as well as their progress (which is encoded through their badges). Certain locations in a game, and by extension, Pokémon, are only accessible after obtaining certain badges, so this relationship was modelled in the ER diagram. Any necessary cardinality and participation constraints have also been included.