University of British Columbia, Vancouver
Department of Computer Science

1a) Domain of this application:

The domain of this application is animal shelter management and logistics as it keeps track of workers, reviews, and adopters' information and many more entities related to a shelter. Also, the domain includes animal wellness in shelters since it keeps track of shelter conditions and health records of animals to make sure they are healthy during their stay in the shelter.

1b) What aspects of the domain are modeled by the database?:

Our project is trying to address the complexities of shelter management and animal health. For example, vets contribute to shelters by writing the health records for animals and report the vaccinations done. In addition, shelters can keep track of which animals were adopted and by who, along with keeping their contact information if needed in the future. Volunteers are also an essential part of shelters. In our database, we keep track of volunteers, their contact information, and availabilities. Furthermore, event and workshop details that are hosted by the shelter are recorded as well. Finally, our DB keeps track of other integral parts of a shelter, such as the inspectors and manager, which is vital because they make sure the shelter is up to code and running smoothly.

2. What functionality will the database provide?

The people who will use the database will be the shelter workers (volunteers, vets, managers) and it will be used to keep track of the wellness of animals and the adoption result. With this database, the shelter workers will be able to register animals (cats, dogs, and birds), and keep a record of adopters and volunteers. The condition of the shelter is recorded in our database through inspector's reviews. Additionally volunteers will be able to see the events and workshops that are hosted in the shelter and can decide to participate depending on their availability. The health records of animals are written by vets and stored in our database for future reference (along with the vaccination).

3. Description of the application platform

- **(a)** We will be using MySQL as our database management system.
- **(b)** We will use Github for team collaboration and management. For languages, we will use PHP, HTML, and CSS.

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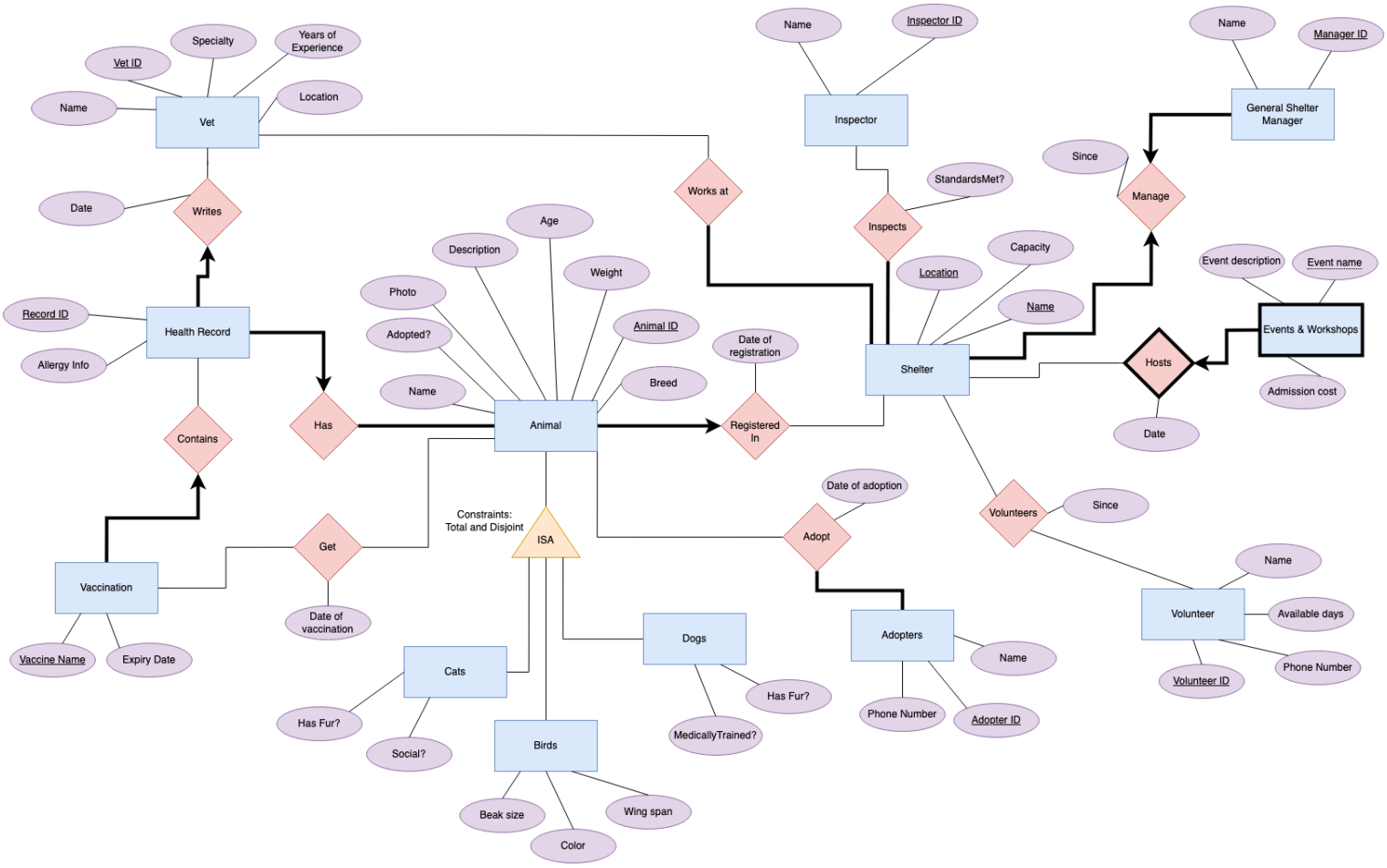
4. ER diagram



5. Other comments:

To justify some of our design choices: We decided that the shelter will only contain cats, dogs, and birds. Hence, we use “Total and disjoint” for the ISA constraint. Similarly, we assume all animals in our DB have a health record, so we used total participation. In addition, if an adopter is in the system that means they have adopted a pet previously, so that is the reasoning behind the total participation. Events & Workshops entity is a weak entity and the partial key “Event name” is underlined with dotted lines because events can have the same name in different shelters so it is not unique on its own. However, checking both “Event name”, “Shelter name” and “Location” will allow us to uniquely identify the event.