**University of British Columbia, Vancouver**
Department of Computer Science

# CPSC 304 Project Cover Page

Milestone #: ____1____

Date: ___2024-10-01___

Group Number: ____70_____

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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

2. A brief project description answering these questions:
   a. What is the domain of the application? Describe it. The domain of an application refers to the area of knowledge your application resides in. For example, if I am making an application for a hospital, the domain would be something like healthcare/patient management/logistics (it would depend on what the application is trying to do).

      The domain of the application encompasses outdoor hiking recreation, providing detailed information about hiking routes, managing hiking activities, and providing available resources for hikers, such as trekking poles and emergency services.

   b. What aspects of the domain are modeled by the database? In answering this question, you will want to talk about what your project is trying to address and how it fits within the domain. It is likely that in the process of answering these questions you will bring up examples of a real-life situation that the application could be applied to.

      Hikers may want to know where they can hike, what the trails are like. They can also join hiking clubs that can schedule hiking activities. Also, they may need hiking tools like trekking poles, emergency services, and carpooling.

3. Database specifications: (3-5 sentences)
   a. What functionality will the database provide? I.e., what kinds of things will people using the database be able to do.

      Hikers can see a list of mountains they can hike. For each mountain, they can see different trails. Hikers can also join hiking clubs, which have organizers who schedule club hiking events and provide rentable trekking poles and emergency services. Additionally, Hikers can join or schedule carpools.

4. Description of the application platform: (2-3 sentences)
   a. What database will your project use (department provided Oracle, your own MySQL, etc.)?) See the "Project Platforms" section of this document for more information.

      Our project will use the department provided Oracle.

   b. What is your expected application technology stack (i.e., what programming languages and libraries do you want to use)? See the "Project Platforms" section of this document for more information.
      I. You can change/adjust your tech stack later as you learn more about how to get started for the project via latter tutorials.

      We expect to use Oracle with JavaScript.

5. An ER diagram for the database that your application will use. It is OK to hand-draw it but if it is illegible or messy or confusing, marks will be taken off. You can use software to draw your diagram (e.g., draw.io, GoogleDraw, Microsoft Visio, Powerpoint, Gliffy, etc.) The result should be a legible PDF or PNG document. Note that your ER diagram must use the conventions from the textbook and the lectures. For example, do not use crow's feet notation or notation from other textbooks).

    a. Please limit your diagram to a letter size page (8.5 x 11 inches). If you require additional space, talk to your project mentor beforehand as this might mean that your project is a bit more complicated than what we expect.
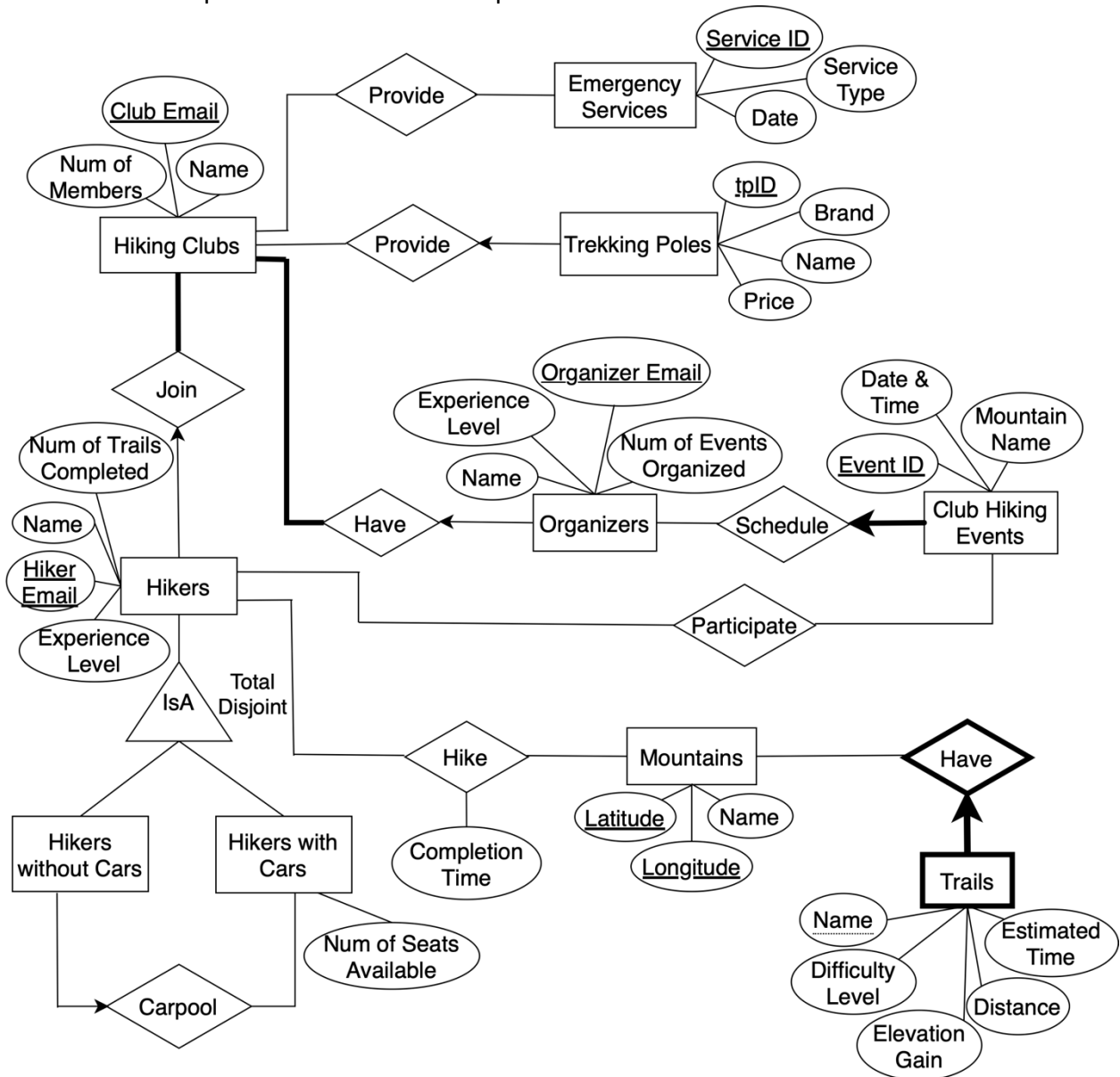
For some entities, we find it difficult to come up with a natural primary key, so we have to create an artificial key. Below is a list of our entities with their primary keys, as well as explanations for some of them:

1. Hikers (Email)
2. Mountains (Latitude, Longitude)
3. Trails (Latitude, Longitude, Name): Each trail in a mountain has a different name.
4. Hiking Clubs (Club Email Address)
5. Emergency Services (Service ID): We assume that the emergency service center always keeps a log of what emergency service they conduct, so each emergency service will be assigned a unique ID.
6. Trekking Poles (tpID): Similar to grocery store inventory management (https://www.oracle.com/ca-en/retail/grocery-inventory-management/), our hiking clubs also have a unique identifier, i.e., tpID, for every trekking pole in the club.
7. Organizers (Email)
8. Club Hiking Events (Event ID): We created an artificial primary key for each event.