University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: ___**1**____

Date: _**Feb 5th, 2021**__

Group Number: ____**55**____

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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

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Project Description:

The domain we're going to model is the NCAA basketball league. We will focus on teams, and associated player data to help us gain insight on what makes a basketball team successful.

The database will model the following aspects: NCAA team, games, players, head coach, event highlights, venues, mascot, and financial transactions.

Database Specification:

There are two tiers of users for our model. The NCAA basketball league (Tier 1) will have unrestricted access to create, read, update, and delete changes in all of the data tables. For NCAA team managers (Tier 2), they can only read (query) results from the data tables.

The NCAA basketball league (Tier 1 access) will be able to:

- Create new NCAA teams, players, venues, mascots data at the request of the NCAA team managers.
- Unrestricted access to read (query) from any of the data tables.
- Update existing information (ie: changes to venue, or player's jersey number) at the request of the NCAA team managers.
- Delete any outdated information at the request of the NCAA team managers

With the aforementioned privileges, the NCAA basketball league could help better organize the logistical data of its enormous league.

The NCAA team managers (Tier 2 access) can only read or query from the data tables. This limited access ensures that the 100's of NCAA team managers do not have the permission to inadvertently add incorrect data or skew crucial game data (ie: game scores) that will impact the integrity of the league.

Even though the NCAA managers only have read access, the ability for them to query from the relational database would be highly beneficial. Some benefits include:

- Accessibility to data that could be used for statistical modelling for the purpose of business or team-play decisions. A few examples include:
    - Which player scored the most 3-point goals in the 2015 season?
    - Can we quantify a change in a team's performance between home/away games?
    - How much revenue was generated in the past 3 seasons?

Application Platform:

We will be using MySQL as the relational database management system. In the backend, we will use Python's MySQLdb package to connect to the database tables and run the queries. Right now, we don't have plans to create a front-end interface, but this is subject to change.

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E-R Diagram: