University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: ___1_____

Date: __October 6th, 2023___

Group Number: ___155___

Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Armaan Sawhney	44616670	b6x2w	armaansawhney070903@gmail.com
Zaid Khan	23739394	w9f6u	zkhan1605@gmail.com
Gabriel Jiménez	10000602	p9m7b	gjimnez@student.ubc.ca

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

a. What is the domain of the application? Describe it.
- The domain of an application is in sports. The application keeps track of a basketball league with player information, team information, game information, sponsors, owners, game locations, etc.

b. What aspects of the domain are modeled by the database?
- The application's database contains information about
    - Basketball teams (TeamID, Name, City, Arena)
    - Team's sponsor (Name, Contributions)
    - The team's owner (Name, Networth, DOB)
    - Player (Name, ID, Position)
    - Coaches (Name)
    - Contracts (Terms, StartDate, Amount, EndDate)
    - Game Information (GameID, HomeTeam, AwayTeam, Score)
    - Season Information (StartDate, SeasonYear, EndDate)
    - Referees (Name, RefID, ExperienceYears).

- In real-life situations, the database can be used to search up records of certain game(s), player stats, and team information, etc. and can be used to keep track of all the games and its associated information.

DATABASE SPECIFICATIONS

a. What functionality will the database provide? I.e., what kinds of things will people using the database be able to do?
- The database for the basketball application will provide users with a range of functionalities and capabilities, allowing them to interact with and retrieve various types of information related to basketball teams, players, games, and more. Here's a breakdown of the functionality's users will have:
    - View team information
    - Explore player profiles
    - Access coach details
    - Review contracts
    - Retrieve Game information
    - Navigate Season Records
    - Browse Referee Profiles
    - Search and Filter Teams
    - Retrieve game records
    - Track Game seasons

DESCRIPTION OF THE APPLICATION PLATFORM

a. What database will your project use (department provided Oracle, MySQL, etc.)?
See the "Project Platforms" section of this document for more information.
   - We have decided to build up our project using the department provided Oracle servers as our relational database management system.

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. You can change/adjust your tech stack later as you learn more about how to get started for the project via latter tutorials.
   - We plan to use Java along with PHP as our application technology stack. We will use Oracle for our relational DBMS.

ER DIAGRAM

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.

6. Your E/R diagram should adhere to the expectations listed above.

Entity-Relationship Diagram

Entities and attributes:

- **Owner**: Name, Net Worth, DOB
- **Sponsor**: Name, Contributions
- **Player**: Name, ID, Position
- **Coach**: Name
- **Contract**: start, end, Amount, Teams
- **Team**: TeamID, Name, city, Arena
- **Season**: Start Date, Season Year, end date
- **Games**: GameID, Home Team, Away Team, Score
- **StatSheet**: Points, Steals, Rebounds, Assists
- **Referee**: Name, RefID, Experience Years

Relationships:

- Owner — **Owns** — Team
- Sponsor — **Sponsors** — Team
- Player — **Signs** — Contract
- Player — ISA — Coach
- Team — **Plays** — Games
- Season — **has** — Games
- Games — **Makes** — StatSheet
- Games — **Refs** — Referee