CPSC 304 Project Cover Page

Milestone #: 1

Date: 06/10/23

Group Number: 135

Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Yahya Abouelmagd	54403621	x0p5w	yaya.almajd@gmail.com
Andrew Piemonte	90501727	a0z2r	andrewpiemonte@gmail.com
Jana Sheirah	75867630	j4c7k	jana.sheirah@gmail.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

Project Description

Domain of the Application

The application's domain is centered on entertainment, specifically focusing on video games and tournaments. It aims to encompass various gaming genres and tournaments within the industry. The core idea is to connect these elements through the players themselves. Users can explore different game genres, participate in tournaments, and build a gaming community. Additionally, the platform caters to companies looking to access valuable game-related information. In summary, the application acts as a central hub for gamers to enjoy a diverse gaming experience, from exploring genres to competing in tournaments, while also providing resources for companies seeking game information

Aspects of the domain that are modeled by the database

The database within our application models various aspects of the gaming and tournament domain to provide a comprehensive resource for users and companies. It captures information related to:

> **Game Data:** The database stores detailed information about a wide range of video games, including game titles, platform, genres, release dates, developer details, players, and player reviews.
> **Tournament Information:** The database includes comprehensive details about tournaments, such as tournament names, dates, locations, and participants. It also tracks tournament results and rankings.

Real life situation that the application could be applied to:

- **Tournament Organizers:** A company specializing in organizing gaming tournaments can use the database to research potential video games suitable for tournaments. They can analyze game popularity, player engagement, and other relevant data to make informed decisions on tournament organization.
- **Gaming Platforms (Users Scenario):** Imagine a user named Sarah who enjoys playing strategy games. She logs into our platform and explores the database to find strategy games available on her favorite gaming platform, similar to Steam. She discovers new strategy games that match her interests, helping her make informed choices about her next gaming purchase.

- **Game Acquisition:** Companies seeking to purchase the rights to a video game can use the database to gather insights into the game's performance, user reviews, and market demand, aiding in their decision-making process.

Our project seamlessly integrates within the gaming domain by offering a one-stop platform for gamers to explore games, participate in tournaments, and connect with like-minded individuals. It also serves as a valuable resource for companies seeking data-driven insights into the gaming industry. In essence, our application addresses the diverse needs of both gamers and industry stakeholders within the gaming and tournament domain.

Database Specifications

The database provides a wealth of gaming-related features for users. It allows you to easily access detailed information about a particular game, including its edition, reviews, compatible platforms, and genres. You can also discover the company behind the game and learn about both casual and professional players associated with it. Furthermore, the database offers comprehensive tournament details, such as the number of participants, the roster of players who competed, and the ultimate victor.

Description of the application platform

- **Database Choice:** We've opted for the department's provided Oracle database. Oracle ensures the secure and efficient storage and retrieval of data critical for our application's functionality.
- **Technology Stack:** Our anticipated technology stack includes:
    - **Languages:** SQL for efficient data operations, and PHP for dynamic web interactions.
    - **Libraries:** JDBC, a vital component for secure and seamless database connectivity in our Java-based application.

ER Diagram

ER Diagram (Refer to Figure 1) Explanation:

- **7 Main Entities:** Tournaments, Platform, Players, Game Series, Review, Genre and Company
- **Game Series:** To uniquely identify games, we introduce an artificial key called "Game Id." This is necessary because games might share the same name. There is no other attribute or combination of attributes present that can uniquely identify the entity.
- **Genres:** Genres, such as RPG or ACTION, define the type of a game. Since a game can belong to multiple genres, it is represented as its own entity rather than an attribute of the game series. In addition, genres only need one attribute to describe it, so there is no other attributes other than the primary key.
- **Review:** Reviews are uniquely identified using an artificial ID known as "Review ID" since there are no other attributes suitable for identification.
- **Players:** Players are identified by their unique IDs. This approach is necessary because players may share the same name, making an ID essential for differentiation.
- **Weak Entity:** Games have a wek entity associated with them, Game Edition, since the edition’s existence relies on the presence of the game. Ex: “Call of Duty” is the game and the game edition would be “Black Ops Cold War”.

Figure 1. Project ER Diagram