

CPSC 304 Project Cover Page

Milestone #: 1

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Group Number: 139

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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

Project Description

The application we will build is a multiplayer rock-paper-scissors website, in the domain of online gaming.

(entities modeled by the database to be **bolded** below)

To build this multiplayer game, **Player** data will be tracked with the database. Each player may customize their profile with a **PlayerIcon**, consisting of a profile picture and a purchasable **border**. From playing in a **match** with other players, points may be won to purchase a **border**. A history of these transactions will be tracked with **ItemTransactions**. **DirectMessages** sent between two **players** will be stored.

Information of **matches** played will be stored. **Tournaments** involving multiple **matches** may be held, and information of past **tournaments** will be stored. A **leaderboard** per year/season will be kept track of, and **players** will be ranked during each year/season.

A **ComputerPlayer** following some specific algorithm may also participate in **matches**.

Database Specifications

To construct a multiplayer game application, the following information will be available with the database:

- every players' profile and statistics (ie ELO, email, etc)
 - different computerPlayers' information will also be tracked
- player icons and equipped border
 - player inventories may also be viewed
- borders and their metadata
- transactions made by players of borders from the store
- each match played with accompanying data (ie date/time of match, players involved, etc)
- each tournaments' statistics (ie winner, date/time, etc)
 - information of the matches involved during each tournament may be viewed
- rankings of the top X players of each season/year
- a (limited) history of direct messages between players

Application Platform

JavaScript will be used as the primary language. The tech stack will be **Node.js** and **Express.js** on the backend, with **oracledb** as the database. **React.js** may be used on the frontend.

ER Diagram

