University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: ___3_____

Date: __October 29th, 2023___

Group Number: ___155___

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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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REPOSITORY LINK

https://github.students.cs.ubc.ca/CPSC304-2023W-T1/project_b6x2w_p9m7b_w9f6u

- Added the README file in the repository
- Added Milestone 1 and 2 deliverables
- Every member has made one commit to the repository.

PROJECT DESCRIPTION

- 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.
- 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.
- 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
- We have decided to build up our project using the department provided Oracle servers as our relational database management system. We plan to use Java (JFrame) along with Oracle as our application technology stack. We will use Oracle for our relational DBMS.

TIMELINE

FRONT END [ZAID]

- Nov 7:
  - UI Design and Mock-ups: Collaborate with the team to design the front-end GUI, finalize design.
- Nov 11:
  - Develop Main Page (Startup Window): Create the main application window with a menu bar and placeholders for content.
- Nov 16:
  - Develop other pages for searches and data display structure

- Nov 18
  - Incorporate Buttons and Search Bars: Add buttons and search bars to the UI without functionality.

- Nov 18 - 25:
  - Refine Frontend and implement functionality with Backend
    - Learn how to place data in table
    - Learn how to query data
    - Learn how to implement a search bar with functionality
      - Update page on search
      - Add/Edit values
    - Learn how to Implement Filtering

BACK END [ARMAAN   , GABRIEL]

- Nov 7
  - Set Up Oracle Database: Install and configure Oracle Database.
  - Understand Oracle Database Commands

- Nov 10 - Nov 15:
  - Create SQL Tables
  - Populate Tables meaningful entries.
  - Refine table relations from Milestone 2 feedback.
  - Remove data redundancy

- Nov 15 - Nov 18:
  - Implement data validation to ensure data integrity and handle errors.
  - Data defaults, check null values, ensure input parameters.
  - Create an SQL script with all tables and initial queries.

- Nov 18 - Nov 22:
  - Connect Oracle Database to Frontend
  - Develop the backend code to connect to the frontend.
  - Ensure server security (sanitization).
  - Make sure frontend is displaying everything properly
  - Make sure updated/new values are fetched back to server

- Nov 22 - Nov 25:
  - Ensure Queries Requirements:
    - Insert operation
    - Delete operation
    - Update
    - Projection
    - Selection operation
    - Join
    - Aggregation with group by
    - Aggregation with having
    - Nested aggregation with group by
    - Division
  - Screenshot of Query Results with documentation

- Nov 25 - Dec 1:
    - Thoroughly test the backend and optimize database queries.
    - Create basic documentation for the backend for demo
    - Finalize application and make sure everything is working
    - Make sure DROP, CREATE and reload tables work from .SQL script
    - Prepare for demo

DESCRIPTION OF CHALLENGES/THINGS LEFT TO DO

Complete Functional model: Nov 25th
Add Features and Clean up GUI, Fix bugs: Nov 25th - Dec 1st

- Ask TA about tech stack clarifications
- Ask TA about specifics of project
- Make a clear structure for the front-end application
- Decide basic graphical unit, like pages, buttons, etc
- Finalize the visual vibe of the application
- Ensure Oracle is functioning and we have the right technology stack
- Ask TA where we might be lacking in anything.