University of British Columbia, Vancouver
Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: 3

Date: March 11th, 2025

Group Number: 80

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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 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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1. A completed cover page (template on Canvas)

2. A brief (~2-3 sentences) summary of your project. Many of your TAs are managing multiple projects so this will help them remember details about your project.

Our project is based in the Property Management domain, which focuses on overseeing, maintaining, and managing real estate properties, including residential and commercial units. The database models key aspects such as property details, tenant and ownership management, financial transactions, lease tracking, and maintenance coordination. Users, primarily property managers, can store and track lease agreements, monitor rental income and expenses, submit and follow maintenance requests, and generate reports for owners and stakeholders. We based it on our knowledge of the operations of local firms such as Orca Realty and Bodewell which are known for their efficient management of property portfolios.

3. Timeline and task breakdown/assignment:

WEEK	**CATEGORY**	**ZIAD**	**ALI**	**CHEUK-LUN**	**DELIVERABLES**
March 10 - March 16	Database Schema & Query Planning	Ensure foreign key constraints are properly implemented. Finalize relationships between tables.	Draft SQL queries for INSERT, UPDATE, DELETE. Implement triggers for integrity constraints.	Develop JOIN, AGGREGATION, and DIVISION queries. Ensure nested aggregation functions correctly.	- Finalized database schema with relationships. - Draft of 10 required SQL queries with explanations.
March 17 - March 23	Backend Developme nt	Implement backend logic for INSERT, UPDATE, DELETE queries. Ensure error handling.	Implement backend logic for SELECTION, PROJECTION, and JOIN queries.	Implement backend logic for AGGREGATION and DIVISION queries. Ensure correct nested aggregation.	- Working backend with SQL execution logic. - Basic error handling & SQL injection protection.

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March 24 - March 27	Frontend Development	Develop GUI for INSERT, UPDATE, DELETE operations. Ensure usability.	Develop GUI for SELECTION, PROJECTION, and JOIN queries. Ensure dropdown selections.	Develop GUI for AGGREGATION and DIVISION queries. Ensure proper result display.	- Basic functional GUI allowing users to interact with queries. - Queries are executed via forms, buttons, and dropdowns.
March 28 - April 1	Integration & Testing	Connect frontend to backend for INSERT, UPDATE, DELETE. Test user input handling and error messages.	Connect frontend to backend for SELECTION, PROJECTION, JOIN. Verify execution correctness.	Connect frontend to backend for AGGREGATION, DIVISION, and nested queries. Validate query results.	- Fully working application with GUI and database integration. - Test cases executed and bugs fixed.
April 2	Final Submission & Documentation				