

CPSC 304 Project Cover Page

Milestone #: **3**

Date: **Oct 30th, 2023**

Group Number: **37**

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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

Overview:

As the city of Vancouver continues to grow, the demand for rental housing skyrockets as people seek out accommodation, prompting a parallel surge in the need for property management teams.

Domain & Specification:

The application's domain focuses on providing Property Managers with a dashboard for efficient day-to-day operations and stakeholder management. These stakeholders include landlords, tenants, realtors, and maintenance staff. The core functionalities of our database surround the ability to add, remove, modify, and view stakeholder data, catering to the specific needs of property management teams.

Tasks:

We will be dividing up the work through an end-to-end design process, where each member will be responsible for both the GUI frontend and the backend integration of each given query. Each member will ensure that their tasks will have a functional GUI component and ensure that it connects properly to the backend database.

Fahim will also act as de-facto designer, making sure that the UI is user-friendly (such as adding different pages when appropriate).

This table will act as a tracker for which member is responsible for what task, as well as when the deadline is.

End-to-End Design: [Figma Prototype](#)

Date	Functionality	Status	Owner	Notes
Nov 8, 2023	Insert Insert: <ul style="list-style-type: none">- Landlord- Maintenance Staff- Realtor	Not started ▾	Fahim Gbon	The user should be able to specify what values to insert. The insert operation should affect more than one table (i.e., an insert should occur on a table with a foreign key). The chosen query and table(s) should make sense given the context of the application.

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				<p>The INSERT operation should be able to handle the case where the foreign key value in the tuple does not exist in the table that is being referred to.</p> <p>The tables that the insert operation will run on can be pre-chosen by the group.</p> <p>The user will receive a success or failure notification upon the completion of an insert, update, delete action and will have a way to verify the action's effect on the database.</p>
Nov 8, 2023	Delete From the property manager user perspective - Delete: Landlord Realtor	Not started ▾	Erping Sun	<p>Implement a cascade-on-delete situation (or an alternative that was agreed to by the TA if the DB system doesn't provide this). The user should be able to choose what values to delete.</p> <p>The tables that the delete operation will run on can be chosen by the group.</p> <p>The chosen query and table(s) should make sense given the context of the application.</p> <p>The user will receive a success or failure notification upon the completion of an insert, update, delete action and will have a way to verify the action's effect on the database.</p>
Nov 8, 2023	Update Be able to update	Not started ▾	Borna Shani	<p>The user should be able to update any number of non-primary key attributes in a relation.</p>

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	every entity (all have 2 non-primary key attributes) from the property managers perspective.			<p>The relation used for the update operation must have at least two non-primary key attributes. At least one non-primary key attribute must have either a UNIQUE constraint or be a foreign key that references another table.</p> <p>The application should present the tuples that are available so that the user can select which tuple they want to update.</p> <p>The chosen query and table(s) should make sense given the context of the application.</p> <p>The user will receive a success or failure notification upon the completion of an insert, update, delete action and will have a way to verify the action's effect on the database.</p>
Nov 15, 2023	Selection Ensure all filtering options are possible for tuples in the Realtor table.	Not started ▾	Borna Shani	<p>The user is able to specify the filtering conditions for a given table. That is, the user is able to determine what shows up in the WHERE clause.</p> <p>The user should be allowed to search for tuples using any number of AND/OR clauses.</p> <p>The group can choose which table to run this query on. The query and chosen table(s) should make sense given the context of the application.</p>
Nov 15, 2023	Projection From the property	Not started ▾	Erping Sun	<p>The user is able to choose any number of attributes to view from any relation in the database. Non-selected attributes must not appear in the result.</p>

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	manager user perspective - Project: Landlord & Property and all other attaching attributes that make sense			<p>One or more tables in the relation must contain at least four attributes.</p> <p>The application must dynamically load the tables from the database (i.e., if we were to insert a new table in the database at the start of the demo, this new table should also show up as a possible option to project from).</p> <p>You do not have to allow projection over multiple relations. Projecting over individual relations is sufficient for this rubric item.</p>
Nov 15, 2023	Join Join: <ul style="list-style-type: none"> - Property with Tenant - Tenant with Contract (+ Payment) - Apartment + Townhouse? 	Not started ▾	Fahim Gbon	<p>Create one query in this category, which joins at least 2 tables and performs a meaningful query, and provide an interface for the user to execute this query. The user must provide at least one value to qualify in the WHERE clause (e.g. join the Customer and the Transaction table to find the names and phone numbers of all customers who have purchased a specific item). The group can choose which tables will be affected by the query. The query and chosen table(s) should make sense given the context of the application.</p>
Nov 22, 2023	Aggregation With Group Calculating the average rent per landlord	Not started ▾	Fahim Gbon	<p>Create one query that requires the use of aggregation (min, max, average, or count are all fine), and provide an interface (e.g., HTML button/dropdown, etc.) for the user to execute this query. The group can choose which table to run this query on.</p> <p>The schema can be statically set but the tuples used in the query cannot be predetermined. For example, you</p>

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				<p>can specify that you want to find the total revenue per month but you cannot hardcode which exact months will be in the answer. If the TA asks to add in a sale for a new month, then that new month must be included in the returned results.</p> <p>The query and chosen table(s) should make sense given the context of the application.</p>
Nov 22, 2023	Aggregation with Having <p>Find landlords with more than a certain number of properties (our top clients)</p>	Not started ▾	Borna Shani	<p>Create one meaningful query that requires the use of a HAVING clause, and provide an interface (e.g., HTML button/dropdown, etc.) for the user to execute this query.</p> <p>The schema can be statically set but the tuples used in the query cannot be predetermined.</p> <p>The query and chosen table(s) should make sense given the context of the application.</p>
Nov 22, 2023	Nested Aggregation with Group By <p>Find the average number of stories for apartments, subject to the location being Vancouver</p>	Not started ▾	Erping Sun	<p>Create one query that finds some aggregated value for each group (e.g., use a nested subquery, such as finding the average number of items purchased per customer, subject to some constraint). Some examples for the Sailors table are given in the project specs.</p> <p>The schema can be statically set but the tuples used in the query cannot be predetermined.</p> <p>Note the difference between this query and the above Aggregation Query. You must use separate distinct</p>

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				<p>queries for this criterion and the Aggregation Query (i.e., do not double dip). It is fine to use a view to get the desired behaviour.</p> <p>The query and chosen table(s) should make sense given the context of the application.</p>
Nov 26, 2023	Division Find Property Managers Who Manage All Property Types	Not started ▾	Borna Shani	<p>Create one query of this category and provide an interface (i.e., HTML button, etc.) for the user to execute this query (e.g., find all the customers who bought all the items).</p> <p>The schema can be statically set but the tuples used in the query cannot be predetermined. For example, you can specify that division will happen between this relation with x attributes and that relation with y attributes but the actual values used in the division operation should be dynamic.</p> <p>The query and chosen table(s) should make sense given the context of the application.</p>
Nov 26, 2023	Screenshots of Query Results Each member will be responsible for adding in their respective query results	Not started ▾	Everyone	<p>Screenshots of query result</p> <p>Screenshots of the sample output of the queries using the GUI (for example, you can show what data is in your table before you run the query, and then show another screenshot after running the query, from some kind of GUI input like a button).</p>

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Nov 26, 2023	SQL Scripts	Not started ▾	Everyone	SQL script to create all the tables and data in the database
Nov 29, 2023	README.txt	Not started ▾	Erping Sun	A README.txt file that contains information that has not been included in your other project deliverables. In the event that there is no "extra" information to include in this file, you can submit a txt file that says "No extra information".

Final Draft Version to be Completed by: Nov 29th - to give time at the end for a final check and look through.