CS 348 Final Project: Stage One

Team Name:
Team CBNB

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Project Title:
CBNB: *College Bed & Breakfast*

Project Description:
CBNB is an AirBNB-like application that provides short-term housing options for individuals. During vacation months like winter break and summer break, Universities can use the CBNB application to rent out their dorms for a nominal price and users can book such rooms using the CBNB application. The web application will also display all the rooms available and the ability for users to sort lists by several attributes.

Main Features:

- Add, edit, and delete features for most of the tables (e.g. add more rooms or residential buildings).
- Rent Out a Building - colleges will list their location, the list of residential buildings (i.e. their dorms), the price for each night's stay, and any restriction.
- Reserve a Booking - individuals can book rooms for a short term duration of no more than 3 months for the given price.
- Booking Details - after the users reserve their respective rooms, they will be given their booking details and the person to contact to pay their bill as CBNB does not handle payments.
- University Reports - the university's staff can sort all their reservations based on dorm name, dorm type (i.e. all girls, all boys, or unisex), number of bookings, and total duration of stay.

Initial Database Design:
Guests(guest_id, name, email)
Universities(uid, name, location, building_cnt, guest_cnt)
Dorms(dorm_id, name, address, uid, total_guests, rooms_available, dorm_type)
Rooms(room_id, name, dorm_id, open_date, end_date, next_available_date, max_cap)
Bookings(guest_id, room_id, booking_date, booking_end, payment_due)
Waitlists(uid, room_id, guest_id, requested_date, total_in_queue, pos_in_queue)

Technology/Tools:
CBNB will be a web-application backed by a MySQL database. To develop the frontend of the application, our team will be using HTML/CSS, Bootstrap, and vanilla JavaScript. To develop our backend, our team will use Java and Spring Boot. We will be querying our MySQL instance using SQL, which will be used to generate all the reports for the application's components.