



Finding affordable and comfortable housing as an international student can be a daunting and time-consuming task. With our app, we aim to simplify the process by providing an easy-to-use platform where students can search for housing options that meet their needs and preferences.

With a user-friendly interface, students can search for housing options based on location, budget, and other preferences.

Features

1. Registration/Login

The application has 3 types of users:

- Property owner: someone who owns the lease of an accommodation and is looking to rent the entire unit
- Student owner: someone who has found accommodation but is looking for roommates
- Student: someone who is looking for accommodation

Depending on what the user is looking for, they will register either as a student or an owner. When they log in, they will only be shown features that are relevant to them.

To ensure the security and integrity of our user data, we have implemented the login/registration feature using the cutting-edge JWT Authentication method. This method provides a secure and reliable way of transmitting information between our application and our users, ensuring that all user data remains private and protected at all times.

2. Roommate Matching

The Roommate Matching feature is a key component of our application, designed to help students find compatible roommates and create a comfortable living environment.

This feature allows users to create a detailed profile that includes information about their lifestyle, preferences, and habits, such as their study schedule, cleanliness preferences, and social habits. Our algorithm then analyzes this information to generate a list of potential roommates who are compatible based on their profile data.

Users can then review the potential roommate profiles, email them directly through the application, and ultimately choose a roommate who is the best fit for their needs.

3. Add posting

This feature was designed specifically for the owners. Using this feature, owners can easily create a detailed post for each available accommodation, including a description of the property, rent, address and contact information. This also includes a category field that states whether the posting is for a roommate or for the lease of the accommodation.

4. Show posting

This feature provides a comprehensive view of all available accommodation units within our application, making it easy for users to browse and compare options and find the best fit for their needs. This feature helps to simplify the search process for an accommodation, making it more efficient.

5. Add to favorites

This feature is a convenient tool within our application that allows users to save and revisit accommodation units that they are interested in. Users can add any available accommodation unit to their list of favorites, allowing them to easily access the listing at a later time without the need to search for it again.

6. Show favorites

Using this feature, users can easily access their list of favorite listings, allowing them to quickly view and compare their preferred options. This feature is particularly useful for users who are considering multiple options and would like to compare them before making a decision.

7. Filtering

This feature enables users to quickly and easily narrow down their search results based on a variety of criteria such as their preferred location, price range and category. The application then uses this information to filter the available listings and present users with a customized list of options that meet their specific needs and preferences.

8. Email

This feature enables users to communicate with property owners and potential roommates. Using this feature, users can send emails directly through the application, making it easy to discuss rental terms, ask questions, and arrange property viewings.

9. Map

The map is an additional feature within our application that enables users to view available accommodation units based on their current location. Using this feature, users can view a map of their current location and see pins indicating the locations of available properties within a certain radius. This feature helps users to visualize the available properties in their area and explore different options based on their specific location.

It also helps users to explore different neighborhoods and areas within the city, allowing them to get a sense of the available amenities, transportation options, and other factors that may be important in their decision-making process.

10. Admin

This feature enables the verification of student status during registration by validating the student's study permit. The admin can verify the student's status by reviewing their study permit, ensuring that the student meets the requirements for registering as a student within the application. Only after the admin's approval the student will be able to log into the application. This process helps to ensure that the application is being used by legitimate students and can help to prevent fraud or misuse of the platform.

Dependencies

1. Spring Data JPA

This is a Spring Boot starter dependency that provides the necessary libraries and configurations for using Spring Data JPA for data persistence.

2. Spring Boot Starter Security

This is another Spring Boot starter dependency that includes all the necessary dependencies for setting up Spring Security in a web application.

3. Spring Boot Starter Web

A Spring Boot starter dependency that includes all the necessary dependencies for building web applications using Spring MVC.

4. MySQL Connector Java

A Java driver for connecting to a MySQL database. This dependency is used to establish a connection to the MySQL database backend.

5. JJWT :: API

A Java library for working with JSON Web Tokens (JWTs). This is the API component of the JJWT library.

6. JJWT :: Impl

The implementation component of the JJWT library. This dependency provides the implementation for creating and verifying JWTs.

7. JJWT :: Extensions :: Jackson

A dependency that includes the Jackson JSON library, which is used to serialize and deserialize JWTs.

8. Spring Boot Starter Test

A Spring Boot starter dependency that provides the necessary libraries and configurations for writing and running tests in a Spring Boot application.

9. Spring Security Test

A testing library that provides additional testing utilities for Spring Security.

10. Lombok

A Java library that provides a set of annotations to help generate boilerplate code, such as getters and setters, constructors, and builders. This dependency is used to reduce the amount of boilerplate code in the application.

Build/Deployment instructions

Set up Docker Hub:

Create an account on Docker Hub (<https://hub.docker.com/>).

Create a new repository for your project.

Set up GitLab CI/CD environment variables:

Navigate to GitLab project's "Settings" > "CI/CD" > "Variables".

Add the following variables:

DOCKER_HUB_USER: Docker Hub username.

DOCKER_HUB_PASSWORD: Docker Hub password.

Configure .gitlab-ci.yml file:

Make sure to have the appropriate stages, jobs, and script commands in the .gitlab-ci.yml file.

Enable GitLab runners:

Ensure that GitLab runners are enabled for the project.

Build stage:

The build stage compiles application using Maven.

The mvn compile command is executed in this stage.

Smells and issue stages:

These stages are for analyzing code quality and creating issues based on the analysis results.

Test stage:

The test stage runs the unit tests for application.

The mvn test command is executed in this stage.

Package stage:

The package stage creates a JAR file for the application.

The mvn clean package command is executed in this stage.

Deploy stage:

The deploy stage pushes the application to the Docker Hub repository and deploys it on the university VM.

It builds the Docker image, pushes it to Docker Hub, and deploys it on the VM using Docker commands.

Push changes to GitLab:

After configuring the `.gitlab-ci.yml` file and setting up your environment variables, push changes to GitLab.

GitLab CI/CD will automatically trigger the pipeline, and the application will be built, tested, and deployed on the university VM at <http://csci5308vm25.research.cs.dal.ca:8080>.

Note: These instructions assume that you have already set up the university VM with Docker installed and running. Additionally, make sure to have the necessary access and permissions to deploy your application on the VM.

git.cs.dal.ca/courses/2023-winter/csci-5308/group25/-/pipelines

group25

Project information

Repository

Issues 84

Merge requests 0

CI/CD

Pipelines

Editor

Jobs

Schedules

Test Cases

Security & Compliance

Deployments

Packages and registries

Collapse sidebar

test #219496 89 JWT_Backend_Integration -o 62dadcc4

Bug fix and posting cards #219450 89 JWT_Frontend_Integration -o 331f8b1b

Refactoring #219430 89 JWT_Backend_Integration -o 8c9e7229

Merge branch 'JWT_Backend_Integration'... #219158 89 JWT_Backend_Integration -o 150fb80f

Bug fix -Connect to Owner #219094 89 JWT_Frontend_Integration -o c3ce361f

Admin page Frontend working

git.cs.dal.ca/courses/2023-winter/csci-5308/group25/-/pipelines/218644

group25

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Test Cases

Security & Compliance

Deployments

Packages and registries

Infrastructure

Monitor

Collapse sidebar

Pipeline #218644 triggered 8 hours ago by Pallavi Marni

Refactoring to remove 7 implementation smells

6 jobs for JWT_Backend_Integration in 17 minutes and 22 seconds (queued for 2 seconds)

-o 8afec646

No related merge requests found.

Pipeline Needs Jobs 6 Tests 0

build smells issue test package deploy

build smells job issue-job test package deploy

Usage scenario

For students:

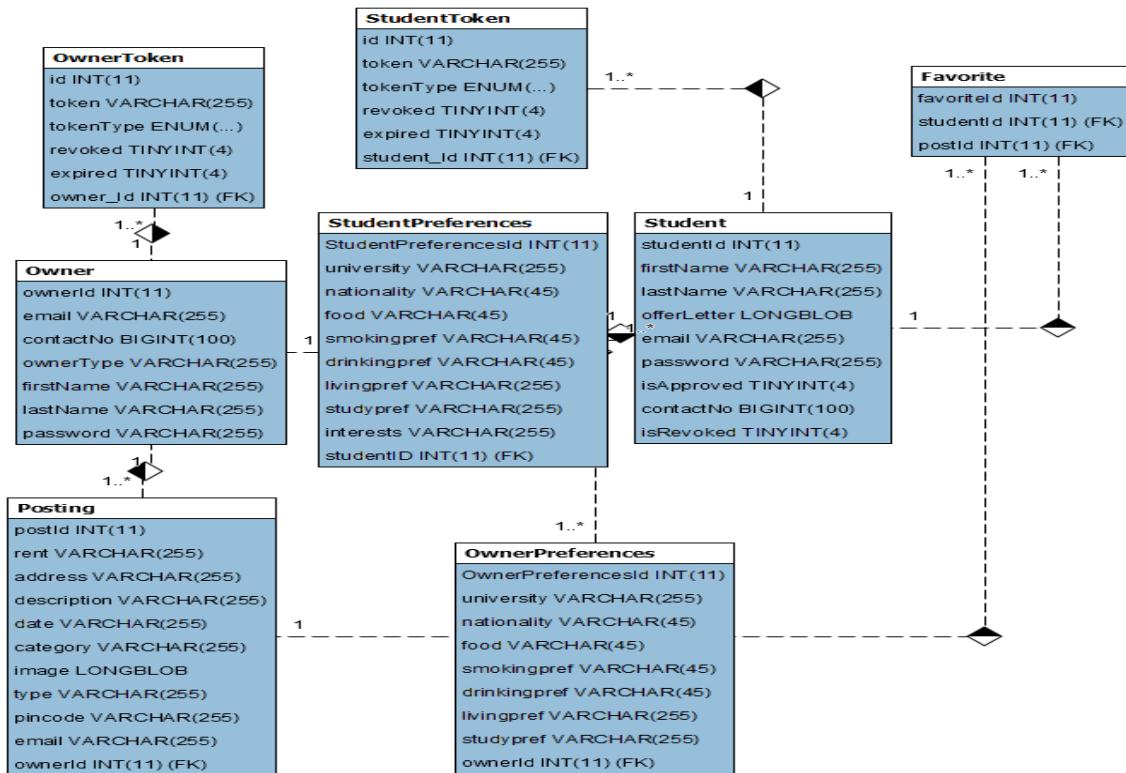
1. Register: To use the application, students must first register an account by providing basic information such as name, email, and password.
2. Set up preferences: After registration, students need to set up their preferences for accommodation so this information can be used for roommate matching.
3. Log in to the application: Once registered, students can log in to the application using their email and password. Students will only be able to login if approval is provided by the admin on validation of study permit.
4. Use the Roommate Matching feature: Students can enter their preferences for a roommate. Once they submit the form, they will be provided with the list of postings matching their preferences.
5. Use the See Listings feature: Students can browse all available accommodation units within the application. They can filter the listings based on their preferred location, price range, and category, making it easy to find the best options for their needs.
6. Use the add to Favorites feature: If a user finds an accommodation unit they are interested in, they can use the favorite button to save the listing for later viewing.
7. Use the See Favorites feature: Students can view the listings they added to favorites
8. Contact property owners and potential roommates: Students can use the Email feature to communicate with property owners and potential roommates directly through the application.
9. Use the Map feature: The Map feature allows students to view available accommodation units based on their current location.

For owners:

1. Register: To use the application, owners must first register an account by providing basic information such as name, email, and password.
2. Set up preferences: After registration, owners need to set up their preferences for accommodation so this information can be used for roommate matching.

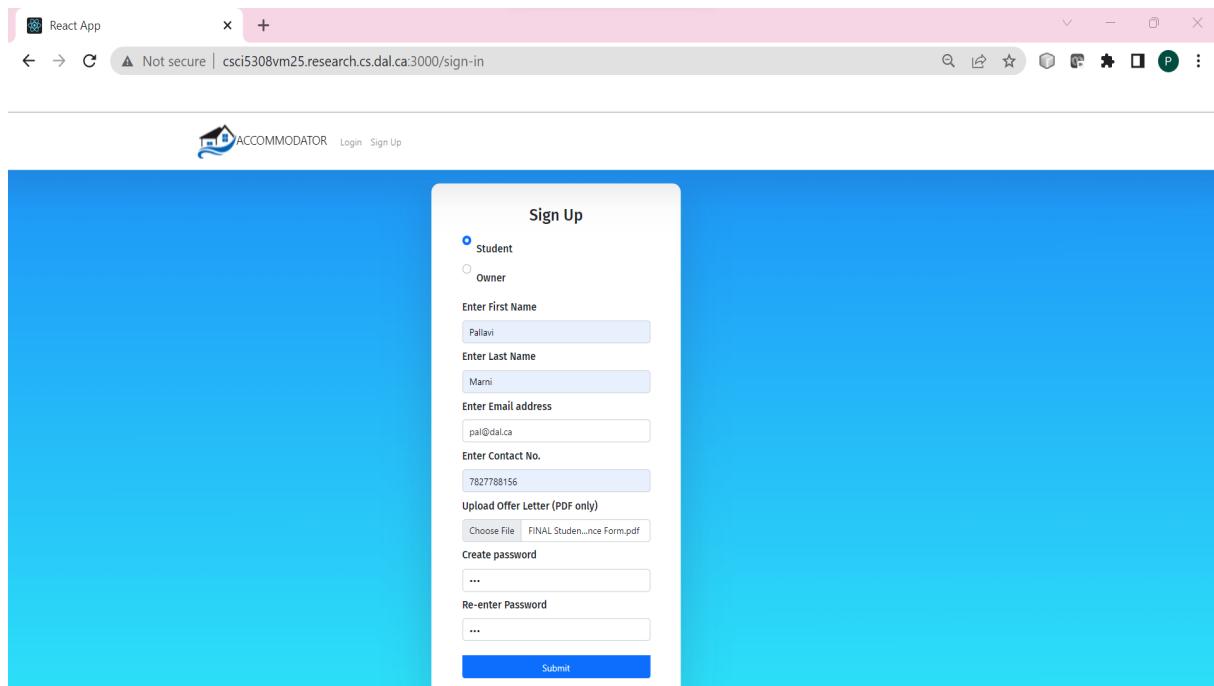
3. Log in to the application: Once registered, owners can log in to the application using their email and password.
4. Use the Add Posting feature: Property owners can use the Add Posting feature to create a detailed post for their available accommodations, including description, rent, address, and contact information. The category field allows owners to specify whether the posting is for a roommate or for the entire unit.
5. Use the Roommate Matching feature: Owners can enter their preferences for tenants. Once they submit the form, they will be provided with the list of students matching their preferences.
6. Use the See Listings feature: Owners can browse all the listings posted by them using this feature.
7. Contact tenants and potential roommates: Owners can use the Email feature to communicate with potential tenants and roommates directly through the application.

ERD



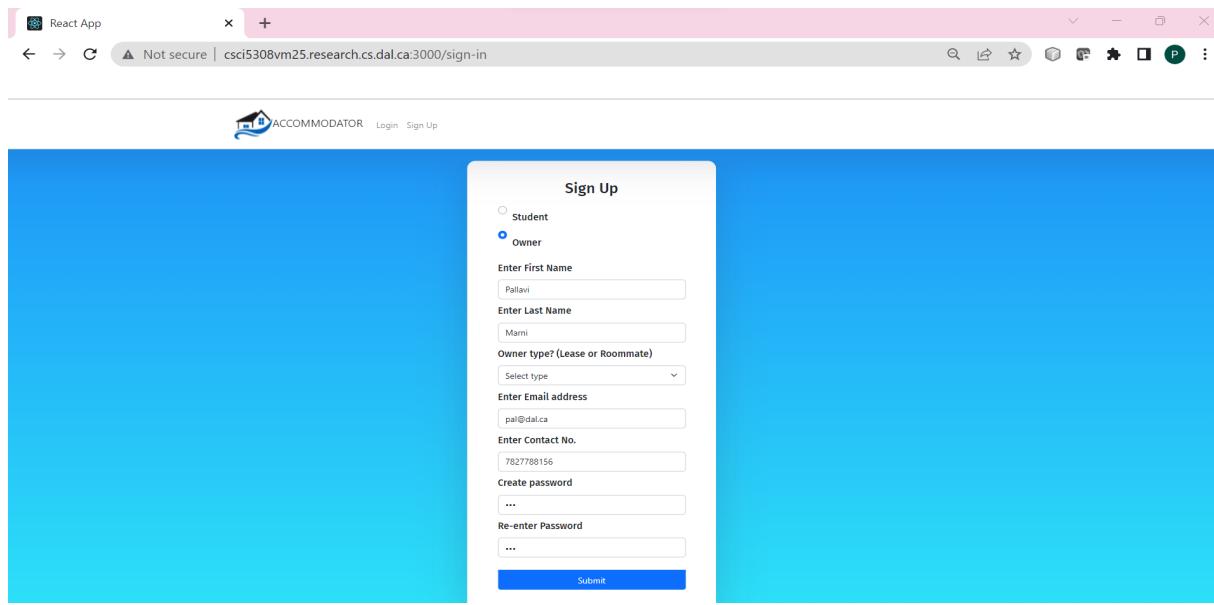
User Interface

1. Sign up page for Student



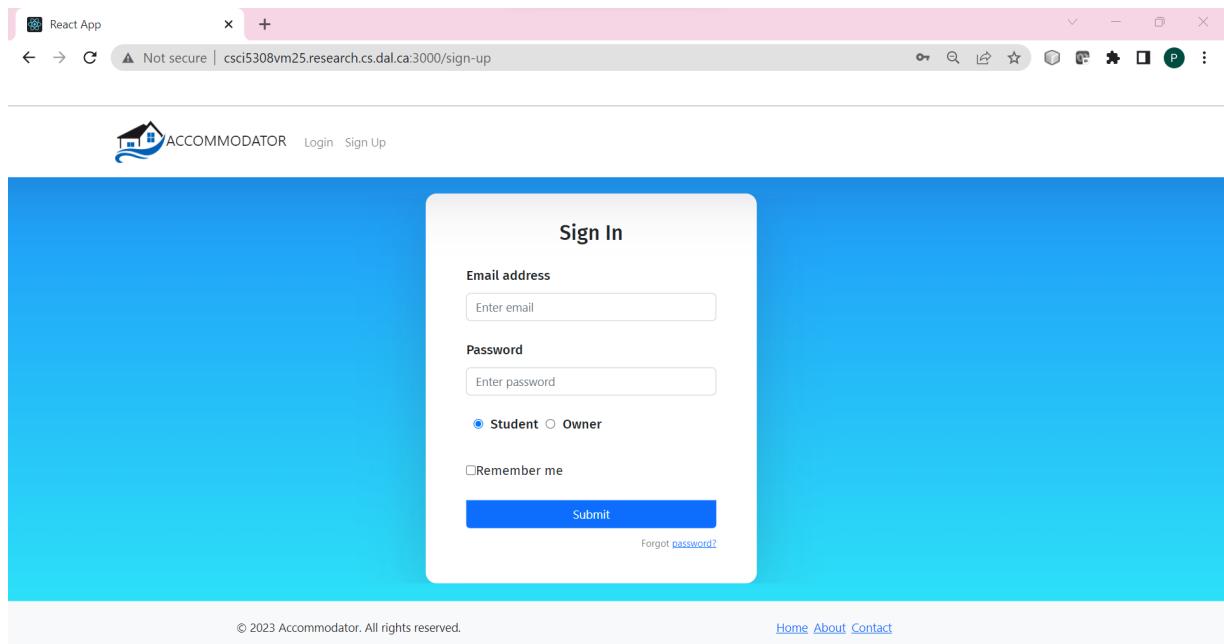
The screenshot shows a web browser window with a pink header bar. The address bar indicates the URL is `csc15308vm25.research.cs.dal.ca:3000/sign-in`. The main content area features a blue header with a house icon and the word "ACCOMMODATOR". Below it is a "Login · Sign Up" link. A central modal window titled "Sign Up" is displayed. It contains two radio buttons: "Student" (selected) and "Owner". Form fields include "Enter First Name" (Pallavi), "Enter Last Name" (Marni), "Enter Email address" (pal@dal.ca), "Enter Contact No." (7827788156), and a file upload field for "Upload Offer Letter (PDF only)" containing "FINAL Studen...nce Form.pdf". There are also fields for "Create password" and "Re-enter Password", both with three dots as placeholder. A blue "Submit" button is at the bottom.

2. Sign up page for Owner



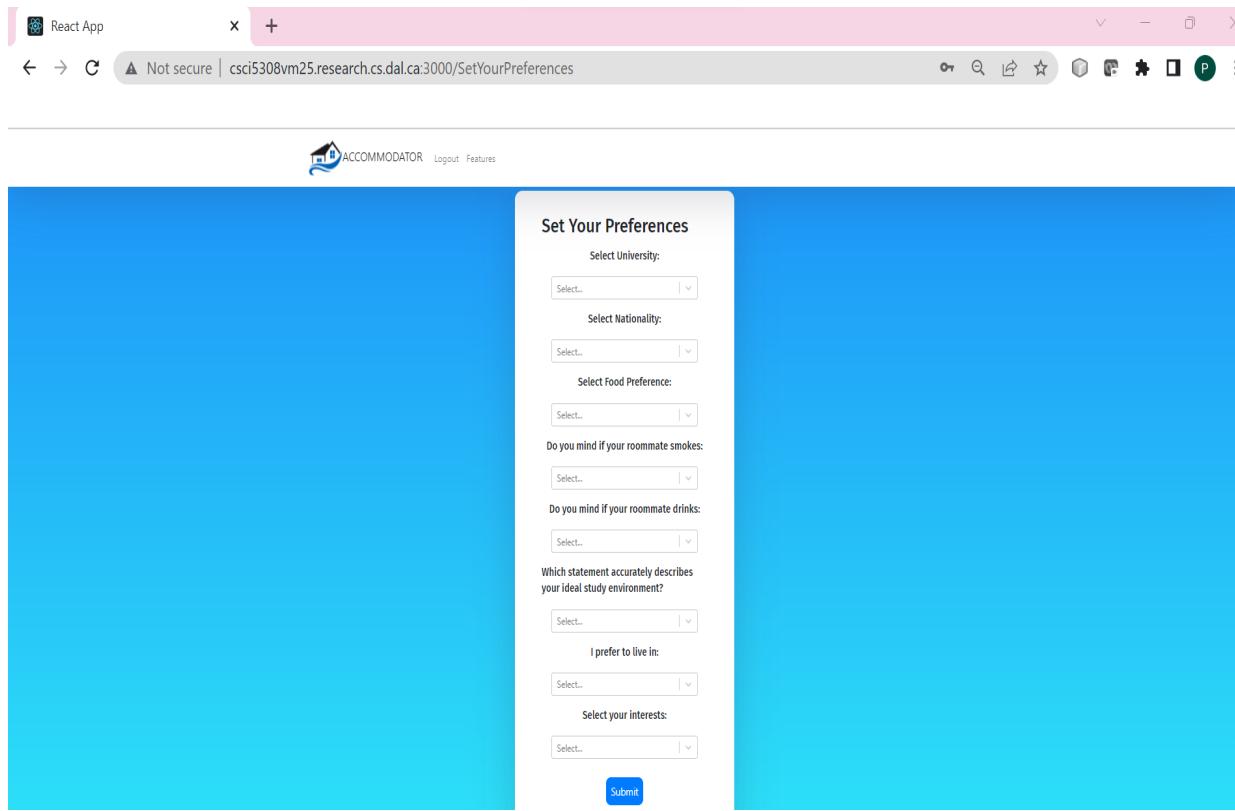
The screenshot shows the same web browser window and URL as the previous screenshot. The "ACCOMMODATOR" header and "Sign Up" link are present. The modal window is titled "Sign Up" and has two radio buttons: "Student" (unchecked) and "Owner" (selected). The form fields are identical to the student version: "Enter First Name" (Pallavi), "Enter Last Name" (Marni), "Enter Email address" (pal@dal.ca), "Enter Contact No." (7827788156), and a file upload field for "Upload Offer Letter (PDF only)" containing "FINAL Studen...nce Form.pdf". There are also fields for "Create password" and "Re-enter Password", both with three dots as placeholder. A blue "Submit" button is at the bottom.

3. Login page



The screenshot shows a web browser window with a pink header bar. The address bar indicates the URL is [Not secure | csci5308vm25.research.cs.dal.ca:3000/sign-up](http://csci5308vm25.research.cs.dal.ca:3000/sign-up). The main content area features a light blue background with a white "Sign In" form in the center. The form includes fields for "Email address" (placeholder "Enter email") and "Password" (placeholder "Enter password"). Below these are radio buttons for "Student" (selected) and "Owner". There is also a "Remember me" checkbox and a "Submit" button. At the bottom of the form is a link "Forgot [password?](#)". The top navigation bar has a logo with a house icon and the word "ACCOMMODATOR", along with "Login" and "Sign Up" links. The footer contains copyright information "© 2023 Accommodator. All rights reserved." and links to "Home", "About", and "Contact".

4. Set Preferences Page



The screenshot shows a web browser window with a pink header bar. The address bar indicates the URL is [Not secure | csci5308vm25.research.cs.dal.ca:3000/SetYourPreferences](http://csci5308vm25.research.cs.dal.ca:3000/SetYourPreferences). The main content area features a light blue background with a white "Set Your Preferences" form in the center. The form includes sections for "Select University" (dropdown menu), "Select Nationality" (dropdown menu), "Select Food Preference" (dropdown menu), and "Do you mind if your roommate smokes?" (dropdown menu). It also includes "Do you mind if your roommate drinks?", "Which statement accurately describes your ideal study environment?", "I prefer to live in:", and "Select your interests" (all dropdown menus). At the bottom is a "Submit" button. The top navigation bar has a logo with a house icon and the word "ACCOMMODATOR", along with "Logout" and "Features" links.

5. Student Features Page

React App Not secure | csci5308vm25.research.cs.dal.ca:3000/StudentFeatures

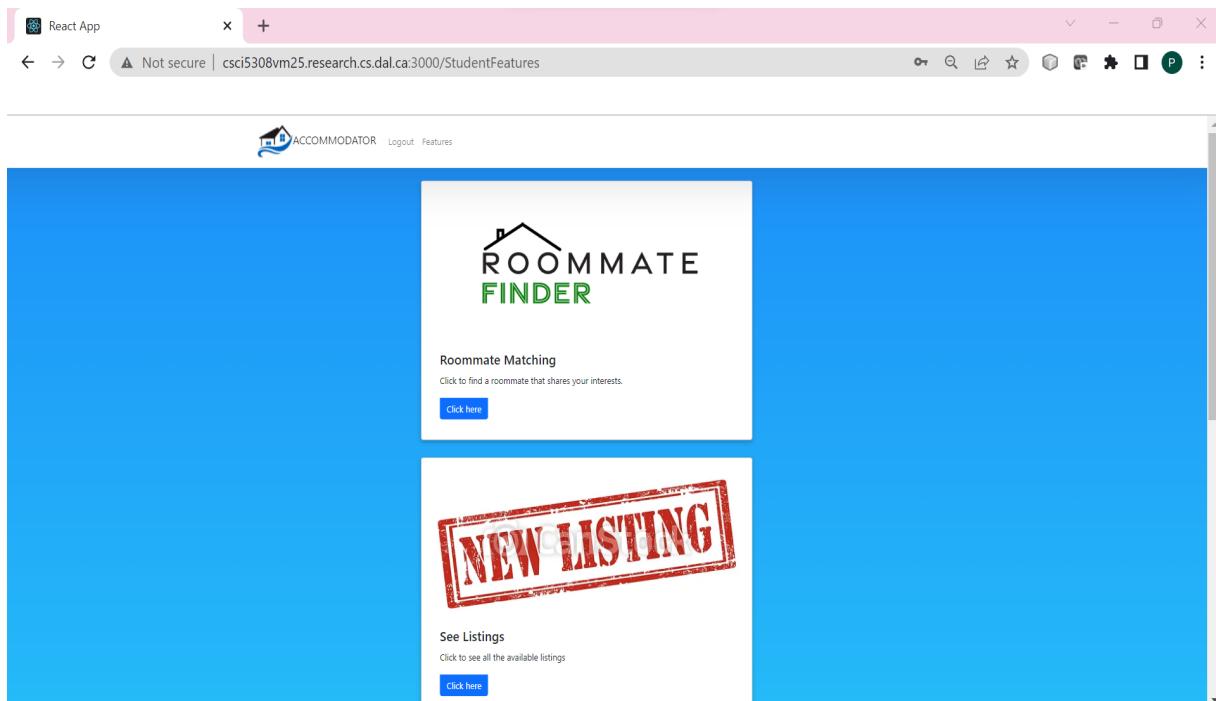
ACCOMMODATOR Logout Features

ROOMMATE FINDER

Roommate Matching
Click to find a roommate that shares your interests.
[Click here](#)

NEW LISTING

See Listings
Click to see all the available listings
[Click here](#)

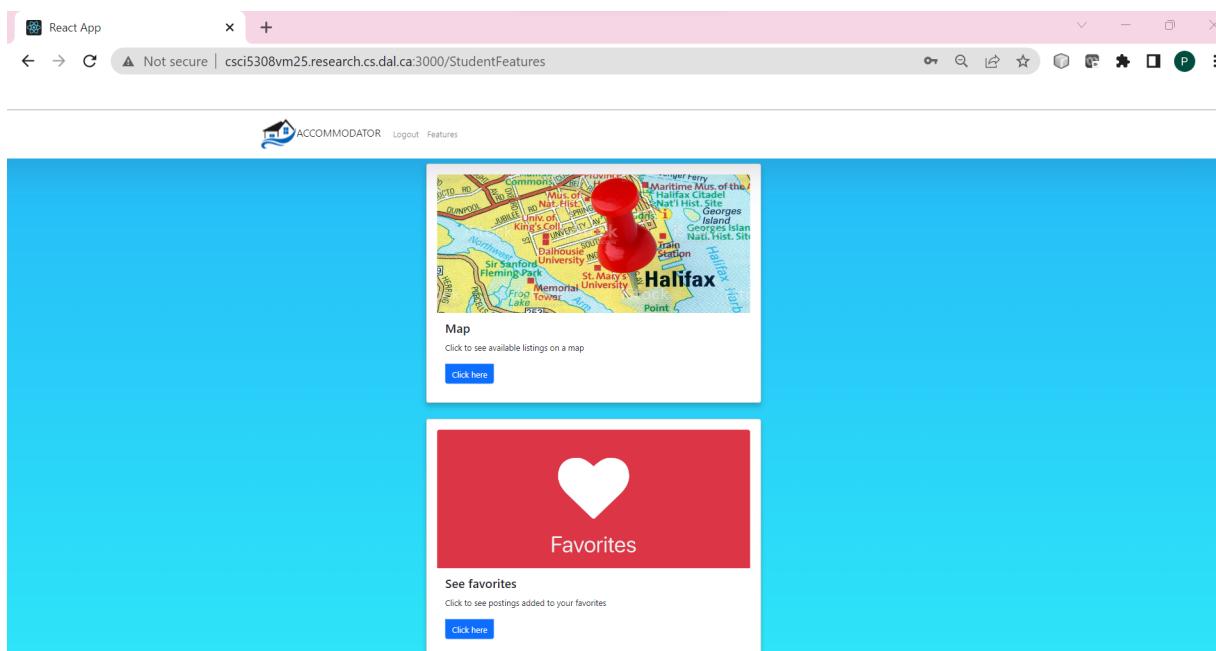


React App Not secure | csci5308vm25.research.cs.dal.ca:3000/StudentFeatures

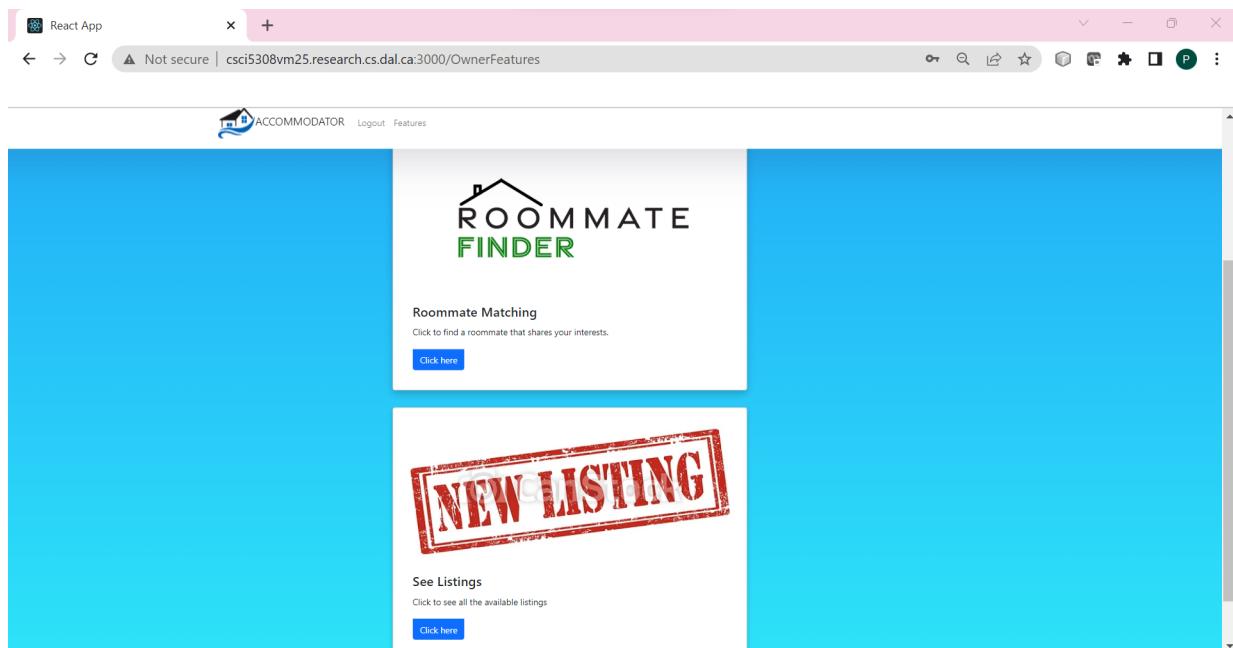
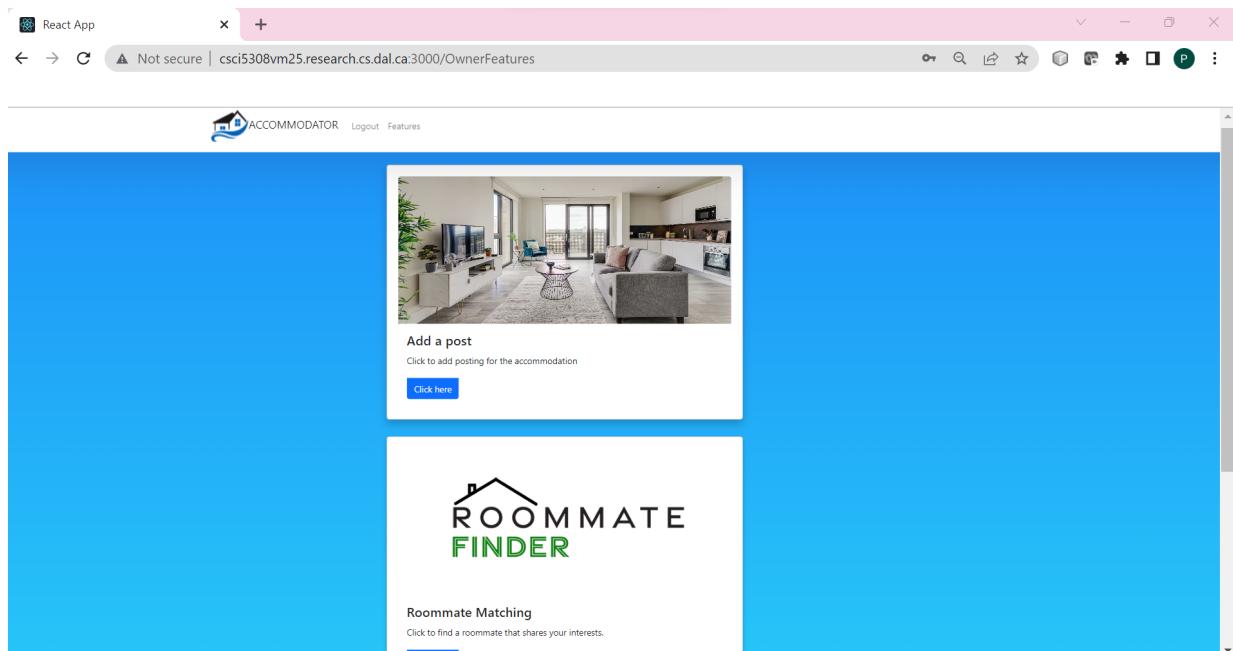
ACCOMMODATOR Logout Features


Map
Click to see available listings on a map.
[Click here](#)

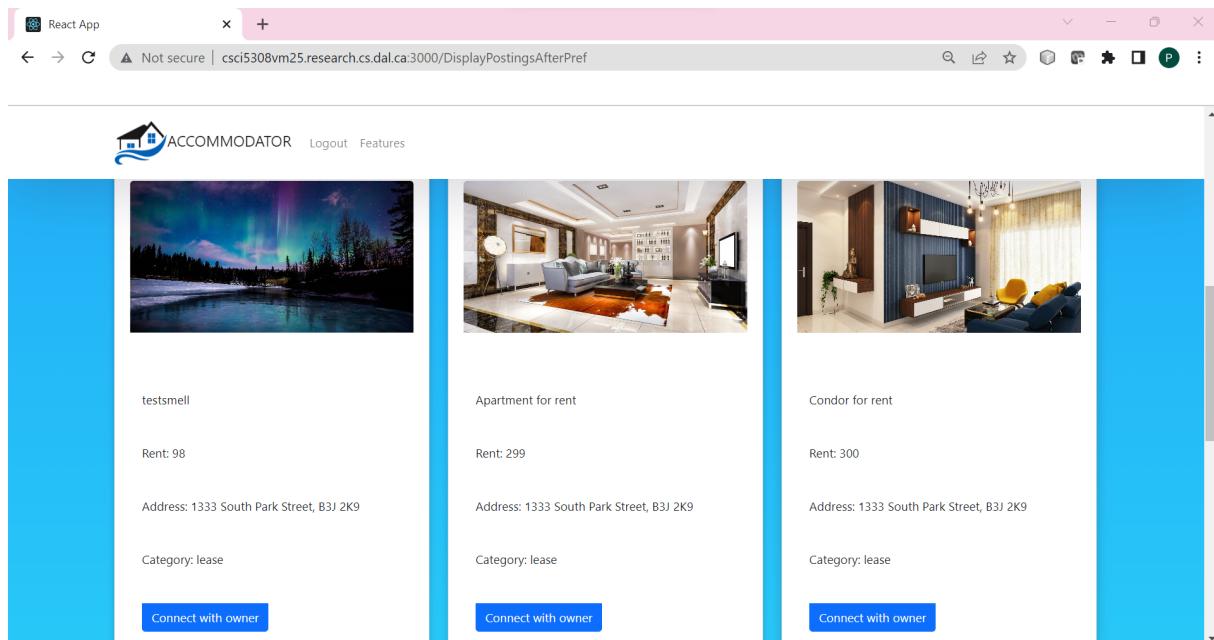

Favorites
See favorites
Click to see postings added to your favorites
[Click here](#)



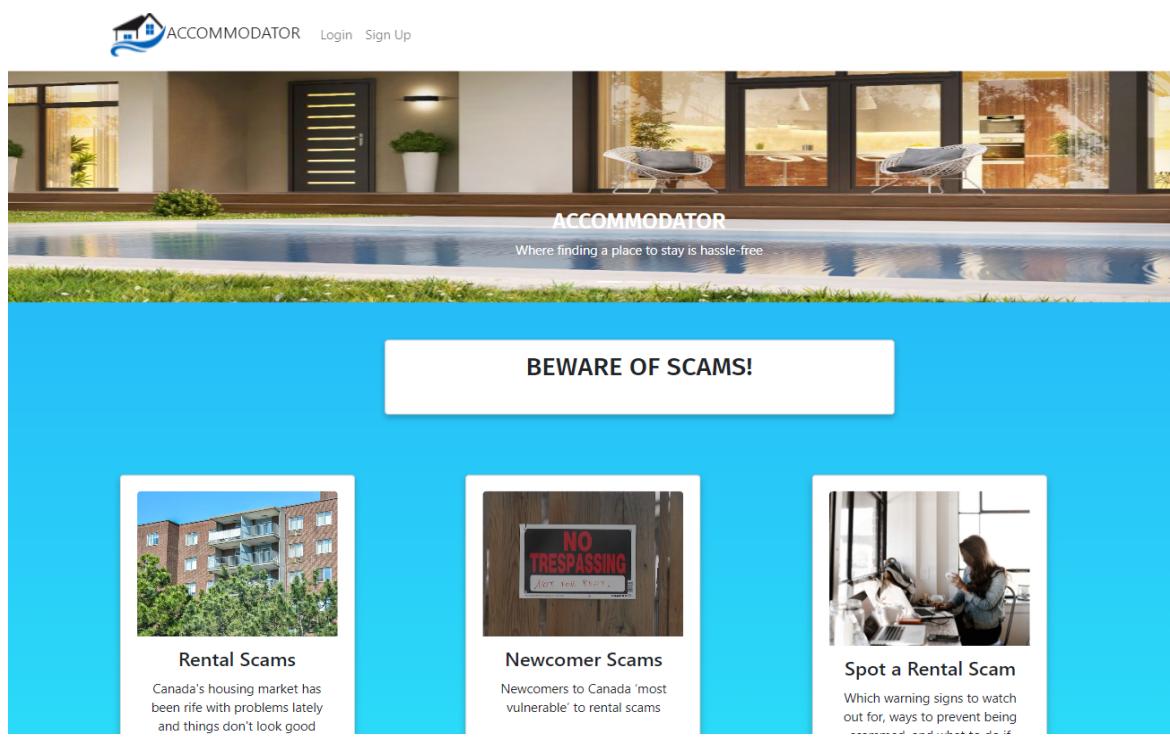
6. Owner Features



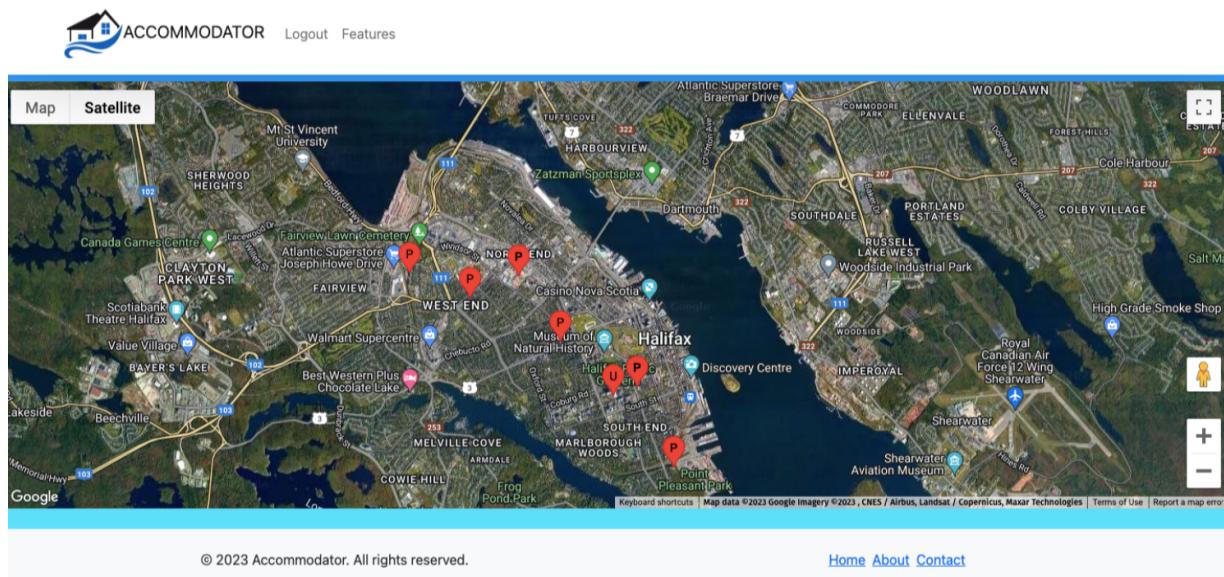
7. Roommate Matching UI



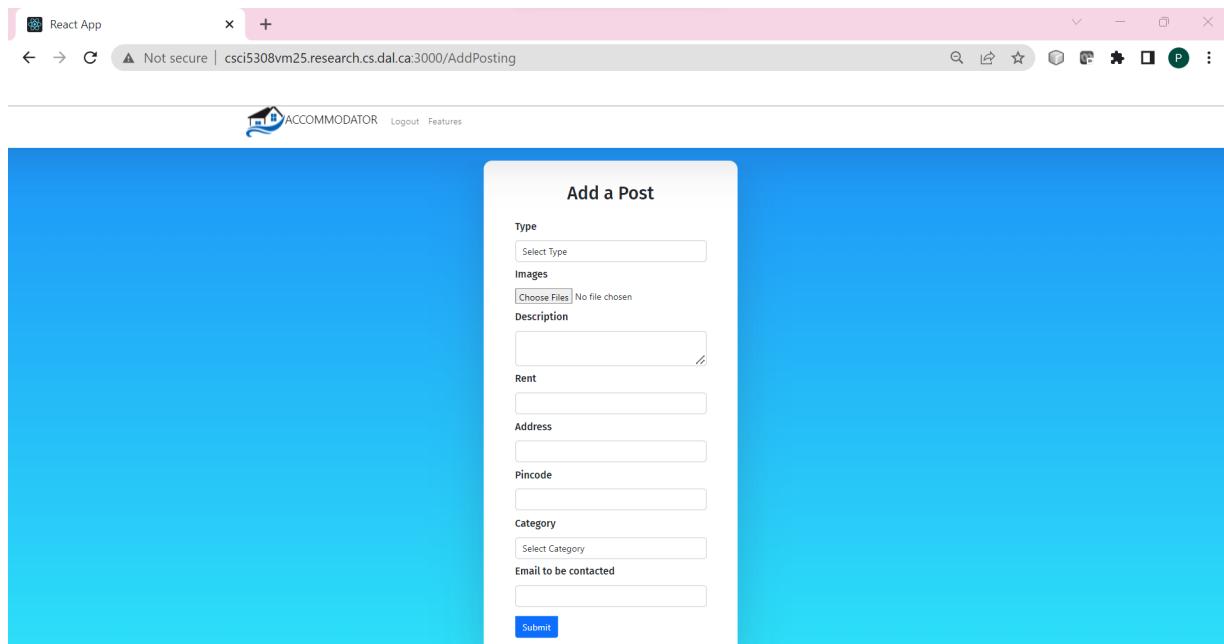
8. Home Page



9. Map API



10. Add Posting UI



11. Show Posting

The screenshot shows the Accommodator platform interface. On the left, there is a sidebar titled "FILTER PROPERTIES" with fields for Rent (slider from \$1 to \$10,000), Category (Select Lease/ Roommate), Preferred zip code, and a "Filter" button. On the right, there is a section titled "LATEST POSTINGS" displaying three card-style listings:

- 2 bedroom apartment available in downtown**
Rent: 500
Address: 2060 Quingate Pl, B3L 4P7
Category: roommate
[Connect with owner](#)
- Available immediately**
Rent: 450
Address: 6299 South St, B3L 3P3
Category: lease
[Connect with owner](#)
- Townhouse for sharing room.**
Rent: 350
Address: 6299 South St, B3H 4R2
Category: roommate
[Connect with owner](#)

12. Email feature

The screenshot shows the Accommodator platform interface with an email message open in the foreground. The message is titled "Request for Accommodation" and contains the following text:

From: pallavi.marni@outlook.com
To: pandeymayank015@gmail.com;
Request for Accommodation

I am interested in your posting posted in the Accommodator platform. Is it still available?
Sent from Mail for Windows

