



GRIFFITH COLLEGE DUBLIN

Assignment Cover Sheet

Student name:	Adarsh Pandit		
Student number:	3134329		
Faculty:	Computing Science		
Course:	BSc Computing (Honours)	Stage/year:	2 nd
Subject:	Server-Side Web Development		
Study Mode:	<input checked="" type="checkbox"/> Full time	<input type="checkbox"/> Part-time	
Lecturer Name:	Ellen Hickey		
Assignment Title:	Assignment 3 - Build a Property Letting Web Application		
No. of pages:	12		
Disk included?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Additional Information:	(ie. number of pieces submitted, size of assignment, A2, A3 etc)		
<hr/>			
<hr/>			
Date due:	15 th May, 2025		
Date submitted:	15 th May, 2025		

Plagiarism disclaimer:

I understand that plagiarism is a serious offence and have read and understood the college policy on plagiarism. I also understand that I may receive a mark of zero if I have not identified and properly attributed sources which have been used, referred to, or have in any way influenced the preparation of this assignment, or if I have knowingly allowed others to plagiarise my work in this way.

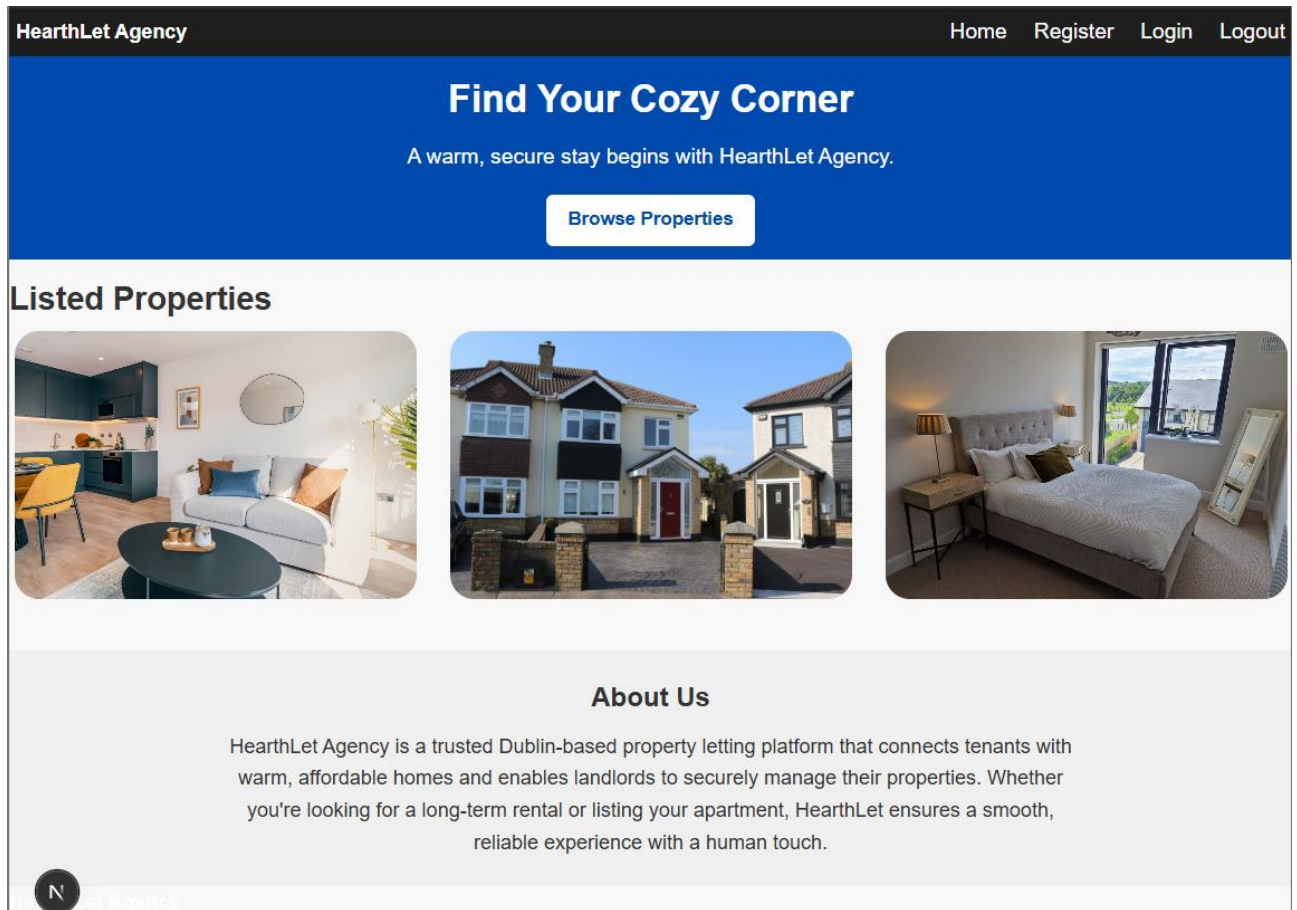
I hereby certify that this assignment is my own work, based on my personal study and/or research, and that I have acknowledged all material and sources used in its preparation. I also certify that the assignment has not previously been submitted for assessment and that I have not copied in part or whole or otherwise plagiarised the work of anyone else, including other students.

Signed: Adarsh Pandit Date: 15th May, 2025

Please note: Students *MUST* retain a hard / soft copy of *ALL* assignments as well as a receipt issued and signed by a member of Faculty as proof of submission.

Assignment 3, Build a Property Letting Web Application

- Homepage(Having a small description of site, with navigation links on the top for easy use of website)

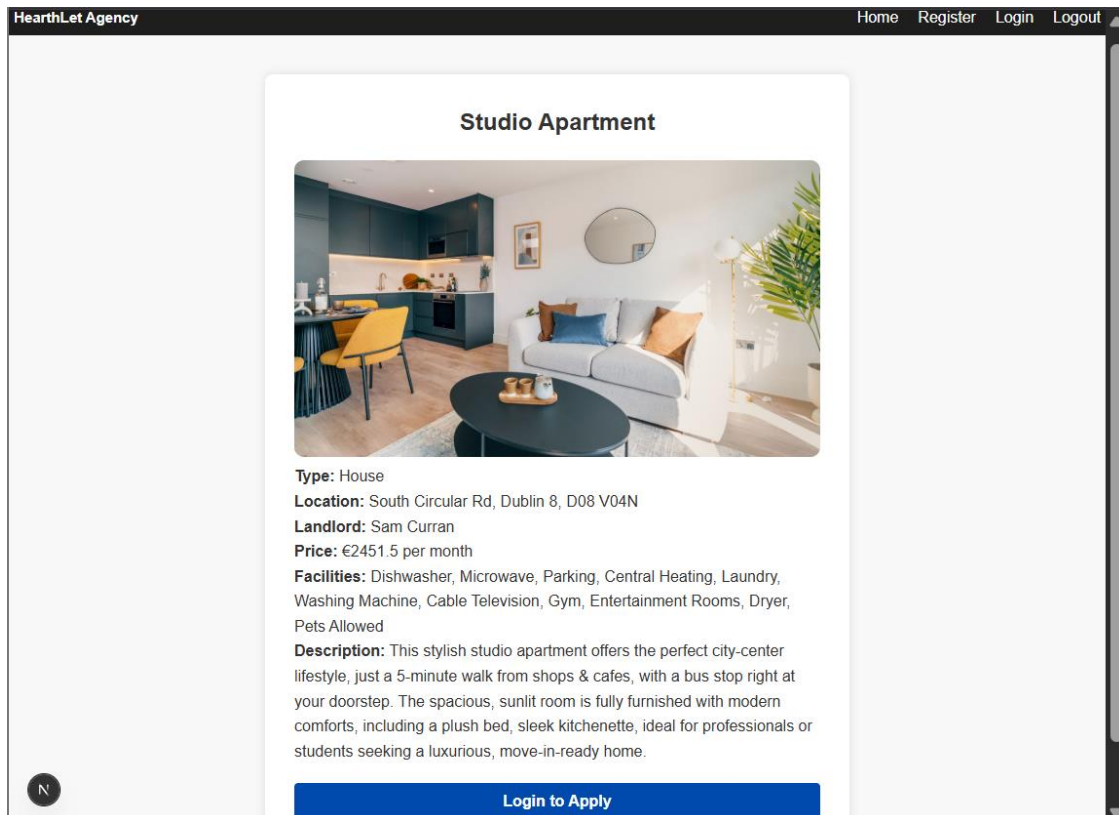
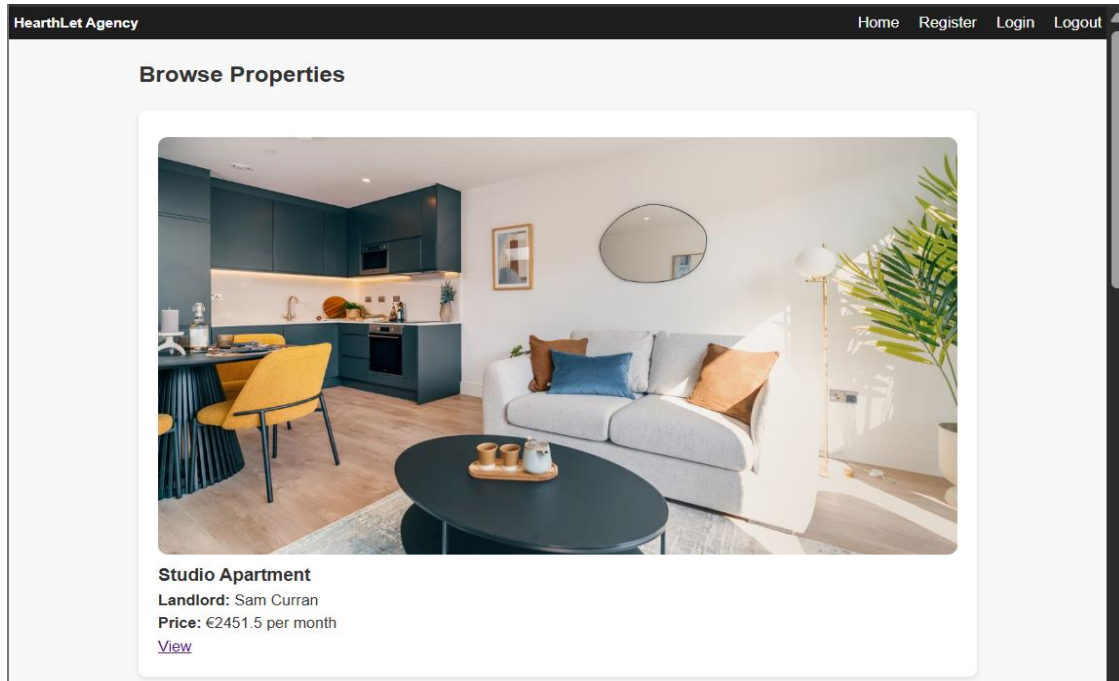


- All the pictures in “Listed Properties” hoover feature in CSS and the picture are in clickable links to directly get description of Property.



Assignment 3, Build a Property Letting Web Application

- Clicking on “Browse Properties” it displays a sort information of property,, informing the price and owner of property to tenants, upon clicking on “View” it displays a detailed info of the properties.
- Property id = 1



Assignment 3, Build a Property Letting Web Application

➤ Property id = 3



2 Bed,2 Bath Apartment

Landlord: Phil Salt

Price: €6250 per month

[View](#)

2 Bed,2 Bath Apartment



Type: Sharing Apartments

Location: Lansdowne Road, Dublin 4

Landlord: Phil Salt

Price: €6250 per month

Facilities: Parking, Central Heating, Alarm, Cable Television, Washing Machine, Dryer, Dishwasher, Microwave, Pets Allowed, Internet, Gym, Entertainment Rooms

Description: Available from May 15th, this beautiful two-bedroom, two-bathroom furnished apartment on the 3rd floor boasts interior-designed finishes and comes with two designated parking spaces.

[Login to Apply](#)

Assignment 3, Build a Property Letting Web Application

➤ Property id = 4



Double Room En-suite

Landlord: Sam Curran

Price: €210 per week

[View](#)

Double Room En-suite



Type: Student Accommodation

Location: Saint Kevin's, Dublin 6

Landlord: Sam Curran

Price: €210 per week

Facilities: Central Heating, Cable Television, Washing Machine, Microwave, Internet, Laundry

Description: Two double bedrooms (each with private bathroom) available in a friendly residential area. No pets or overnight guests. One month's rent security deposit required. Too good for professionals seeking comfortable shared living.

Login to Apply

ADARSH PANDIT -3134329

Assignment 3, Build a Property Letting Web Application

- Clicking on “Register” from Navigation bar allows creating account either for “Landlords” & “Tenants”, once all the details are entered it creates account and redirect directly to “Login page”.

The screenshot shows the 'Register' form in the 'HearthLet Agency' web application. The navigation bar at the top includes 'Home', 'Register', 'Login', and 'Logout'. The form is titled 'Register' and contains the following fields: 'Name' (filled with 'Ben Stokes'), 'Email' (filled with 'ben@gmail.com'), 'Contact Number' (a dropdown menu showing 'IE +353' and a text input field containing '0899999999'), 'Password' (masked with '*****'), 'Confirm Password' (masked with '*****'), and 'Role' (a dropdown menu showing 'Tenant'). A blue 'Register' button is at the bottom of the form. A small 'N' icon is visible in the bottom left corner of the page.

This screenshot shows the 'Register' form after a successful registration. A green message 'Registration successful. Redirecting...' is displayed at the top. The form fields are identical to the previous screenshot: 'Name' (Ben Stokes), 'Email' (ben@gmail.com), 'Contact Number' (IE +353 and 0899999999), 'Password' (*****), 'Confirm Password' (*****), and 'Role' (Tenant). The blue 'Register' button remains at the bottom.

Assignment 3, Build a Property Letting Web Application

- “Login Page” just requires correct email and password and then it redirects to further activity to performed in webpage. Since, my webpage has three access level: “Admin”, “Landlord”, “Tenants” .
 - Admin can view, edit, or delete any user account (landlord, tenant).
 - Landlord can view, add, edit, or delete their own properties.
 - Tenants can apply to rent a property and can view their submitted rental applications.

The screenshot shows the login interface of the 'HearthLet Agency' website. At the top, a dark navigation bar contains the site name 'HearthLet Agency' on the left and links for 'Home', 'Register', 'Login', and 'Logout' on the right. The main content area features a white login box with the title 'Login' in bold. Inside the box, there are two input fields: the first contains the email 'ben@gmail.com' and the second contains masked characters '.....'. Below these fields is a prominent blue button labeled 'Login'.

- Upon tenants getting logged-in they have options to apply on properties by clicking on “Browse Properties” and “My Application” to check status of their application if it got approved or rejected.

The screenshot displays the user dashboard for 'Ben Stokes' after a successful login. The dark navigation bar at the top remains the same. The main content area shows a white dashboard box with the heading 'Welcome back, Ben Stokes'. Below this, the user's role is identified as 'Role: tenant'. Two large blue buttons are presented: 'Browse Properties' and 'My Applications', providing the user with options to explore available properties or check the status of their rental applications.


Assignment 3, Build a Property Letting Web Application

- Clicking on “Browse Properties ” all the property listed appears with full description of property, with a “Apply Now” button upon clicking on it, they can easily apply for the property.

HearthLet Agency

HomeRegisterLoginLogout

Double Room En-suite



Type: Student Accommodation
Location: Saint Kevin's, Dublin 6
Landlord: Sam Curran
Price: €210 per week
Facilities: Central Heating, Cable Television, Washing Machine, Microwave, Internet, Laundry
Description: Two double bedrooms (each with private bathroom) available in a friendly residential area. No pets or overnight guests. One month's rent security deposit required. Too good for professionals seeking comfortable shared living.

Apply Now


Ben Stokes successfully applied for "Double Room En-suite "

- And upon, returning back and clicking on “My Applications” tenants can see the status of property they applied.

HearthLet Agency

HomeRegisterLoginLogout

My Applications



Double Room En-suite
Type: Student Accommodation
Location: Saint Kevin's, Dublin 6
Price: €210 per week
Status: pending

Assignment 3, Build a Property Letting Web Application

- Now, on clicking “Logout” button tenants can easily signout, and on using registered “Landlord” credentials, easy sign-in goes having three options for them:
- Landlord follows CRUD operations.

The screenshot shows the 'HearthLet Agency' dashboard for a user named Sam Curran, whose role is 'landlord'. The dashboard features a dark header with navigation links: Home, Register, Login, and Logout. The main content area is a light gray box containing a white card with the following elements:

- Welcome back, Sam Curran**
- Role: landlord**
- Three blue buttons stacked vertically:
 - Add New Property**
 - Listed Properties**
 - Manage Applications**

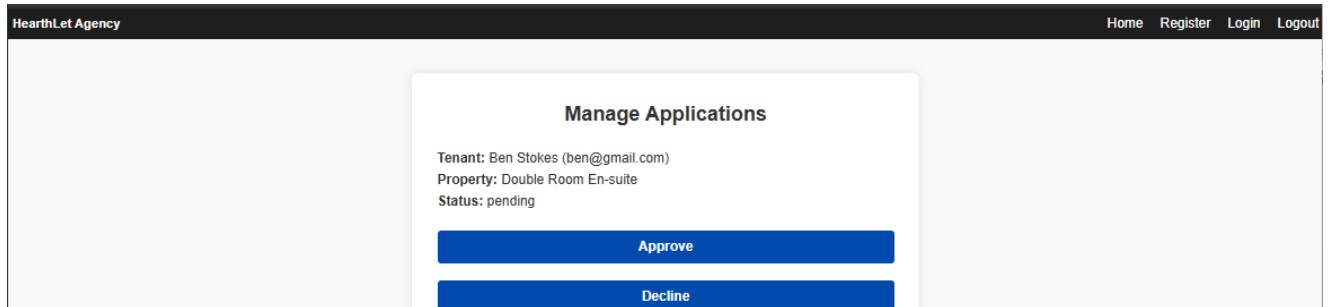
- Add New Properties: Allows landlord to add new property from localhost with all the details of price.

The screenshot shows the 'Add New Property' form within the 'HearthLet Agency' dashboard. The form is a white card with a dark header containing the title 'Add New Property'. The form fields are as follows:

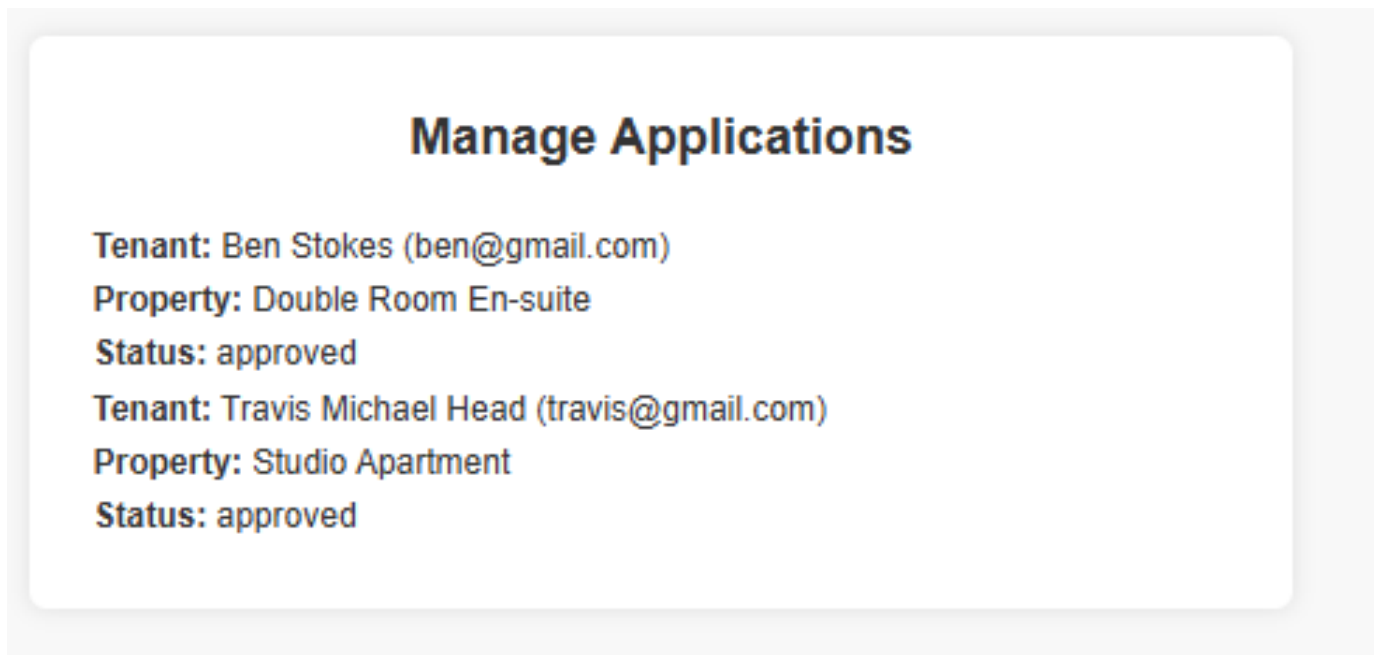
- Title:** Text input field containing 'Studio Apartment'.
- Accommodation Type:** Dropdown menu with 'Houses' selected.
- Location:** Text input field containing 'South Circular Rd, Dublin 8, D08 V04N'.
- Price:** Text input field containing '2451.5' and a dropdown menu with 'Per Month' selected.
- Image URL:** Text input field containing '/images/1.jpg'.
- Facilities:** Dropdown menu with 'Select facility' selected and a blue '+' button to the right.
- Property Description:** Text area containing 'The spacious, sunlit room is fully furnished with modern comforts, including a plush bed, sleek kitchenette, ideal for professionals or students seeking a luxurious, move-in-ready home.'
- Add Property:** Blue button at the bottom of the form.

Assignment 3, Build a Property Letting Web Application

- **Manage Applications:** From this button, landlord can easily see the application submitted by tenants, and they have full access to approve or decline their application, whatever they select here will automatically update status in tenants accounts.




- For now I have approved all the applications submitted but while I will be logging in admin account I will have again the right to approve and decline the status of property to tenants,, which I will include screenshots.



Assignment 3, Build a Property Letting Web Application


- Listed Properties: With this button “Landlord” gets to see all the properties they listed and following CRUD operations, they have access to view, edit, add, delete the data.

My Listed Properties



Studio Apartment
Type: House
Location: South Circular Rd, Dublin 8, D08 V04N
Price: €2451.5 per month

Edit Delete



Double Room En-suite
Type: Student Accommodation
Location: Saint Kevin's, Dublin 6
Price: €210 per week

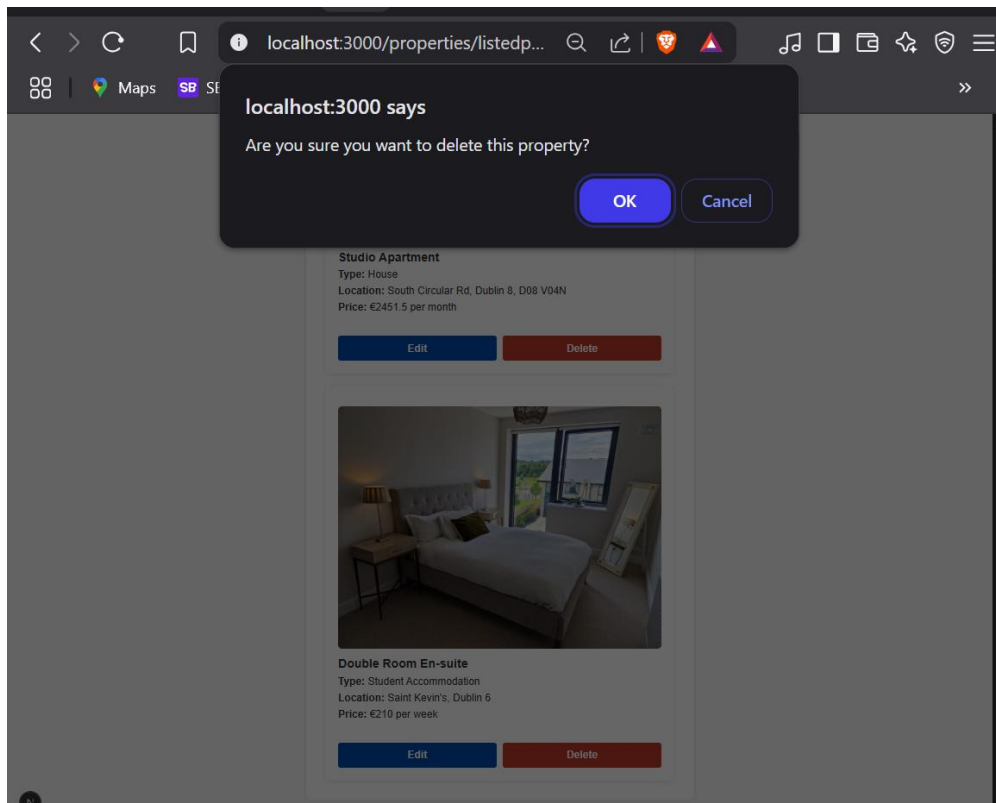
Edit Delete

Assignment 3, Build a Property Letting Web Application

- Upon, clicking on “Edit” the lanlord can modify the stored data of the properties they had already listed.

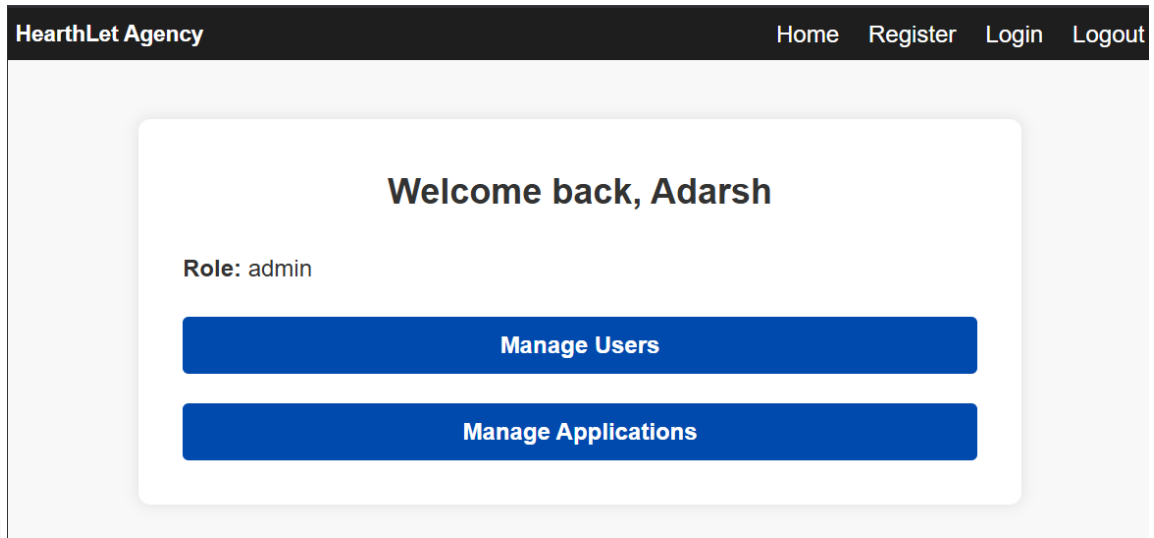
The screenshot shows the 'Edit Property' form in the HearthLet Agency web application. The form is centered on a light gray background. At the top, there's a navigation bar with 'Home', 'Register', 'Login', and 'Logout' links. The form itself has a title 'Edit Property' and several input fields: 'Title' (containing 'Studio Apartment'), 'Type' (containing 'House'), 'Location' (containing 'South Circular Rd, Dublin 8, D08 V04N'), 'Price' (containing '2451.5 per month'), 'Image URL' (containing '/images/1.jpg'), 'Facilities' (containing 'Dishwasher, Microwave, Parking, Central Heating, Laundry, Washing Ma'), and 'Description' (containing a paragraph about a stylish studio apartment). At the bottom of the form is a blue button labeled 'Update Property'.

- Upon, clicking on “Delete” the lanlord can delete the listed property they already listed, which also pops in cookie for confirming deletion.

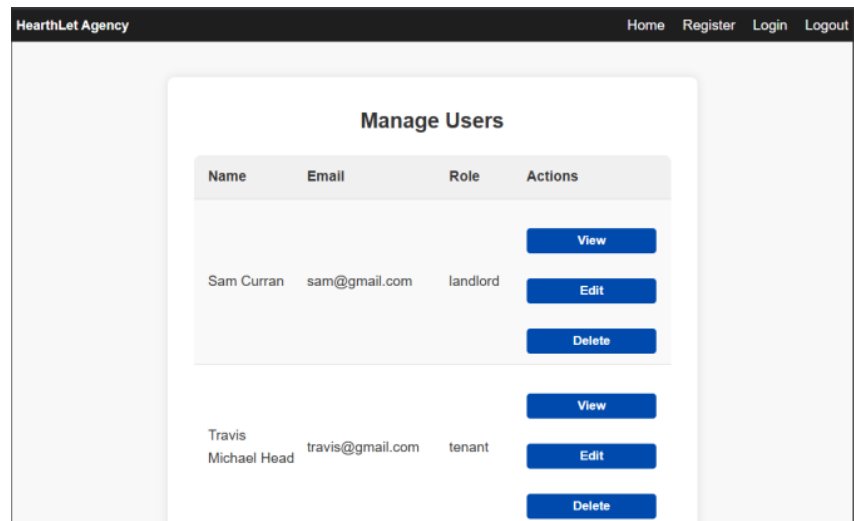


Assignment 3, Build a Property Letting Web Application

- Upon, “Login” with admin account they have two choices:
- Manage Users: Gives access to admin where they can view, edit, or delete any user account (landlord, tenant)
- Manage Applications: Admin can view all applications submitted by tenants, as well as approve/decline applications submitted by tenants.



- Manage Users: Admin can view, edit, or delete any user account (landlord, tenant)



Assignment 3, Build a Property Letting Web Application

- Manage Users: Admin can view all the submitted data during registration of tenants and landlords, except for passwords, following coding standard.

User Details

Name

Email

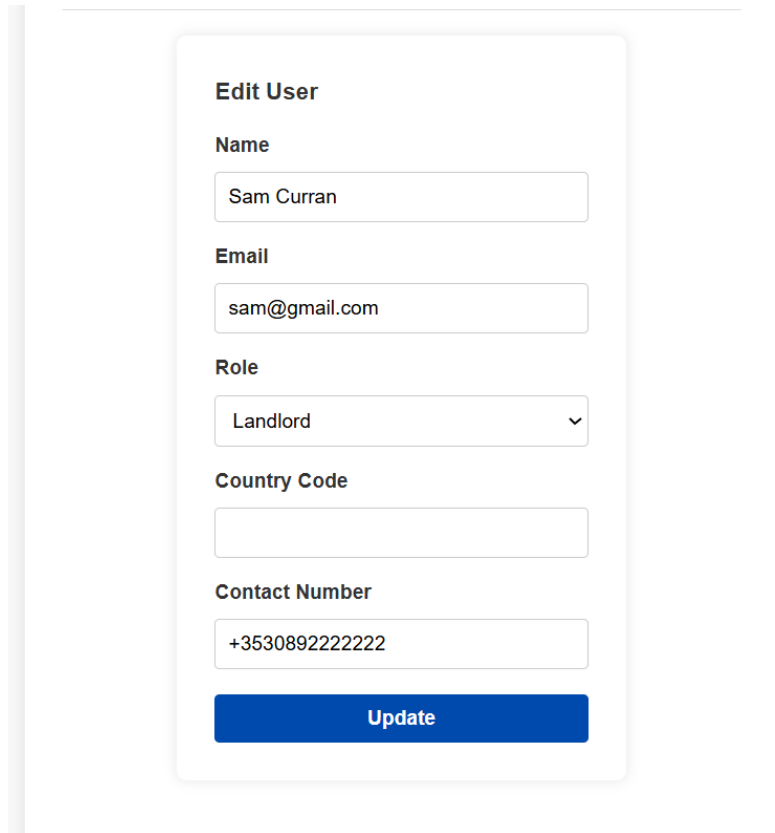
Role

Country Code

Contact Number

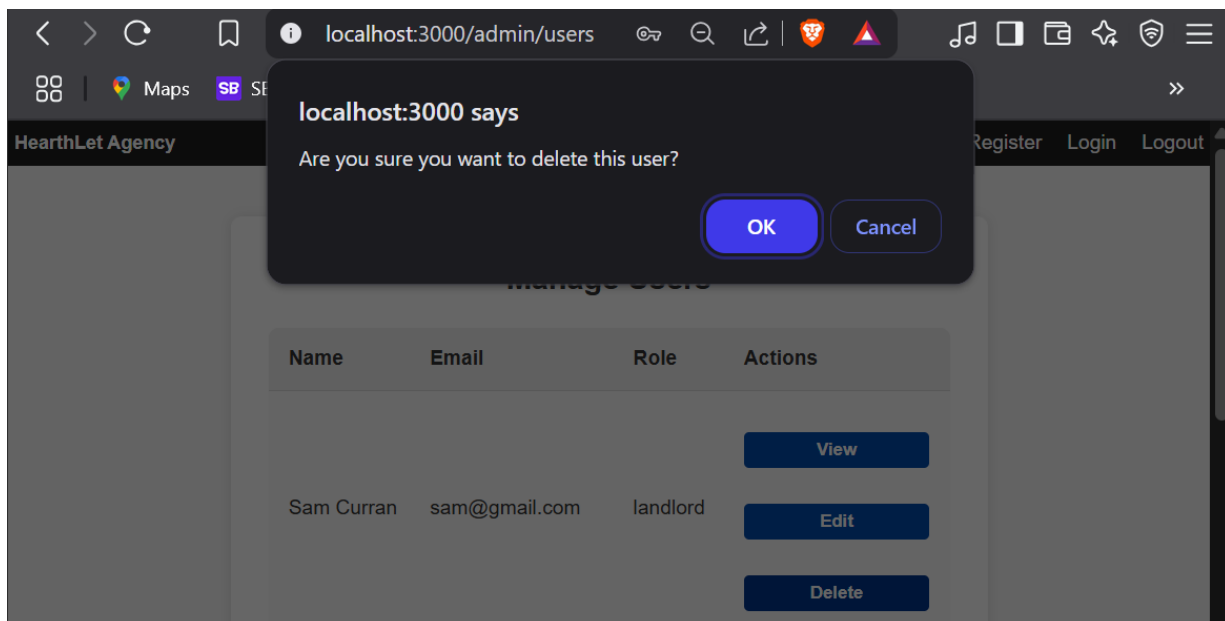
Assignment 3, Build a Property Letting Web Application

- Manage Users: Admin can edit/update all the submitted data during registration of tenants and landlords, except for passwords, following coding standard.



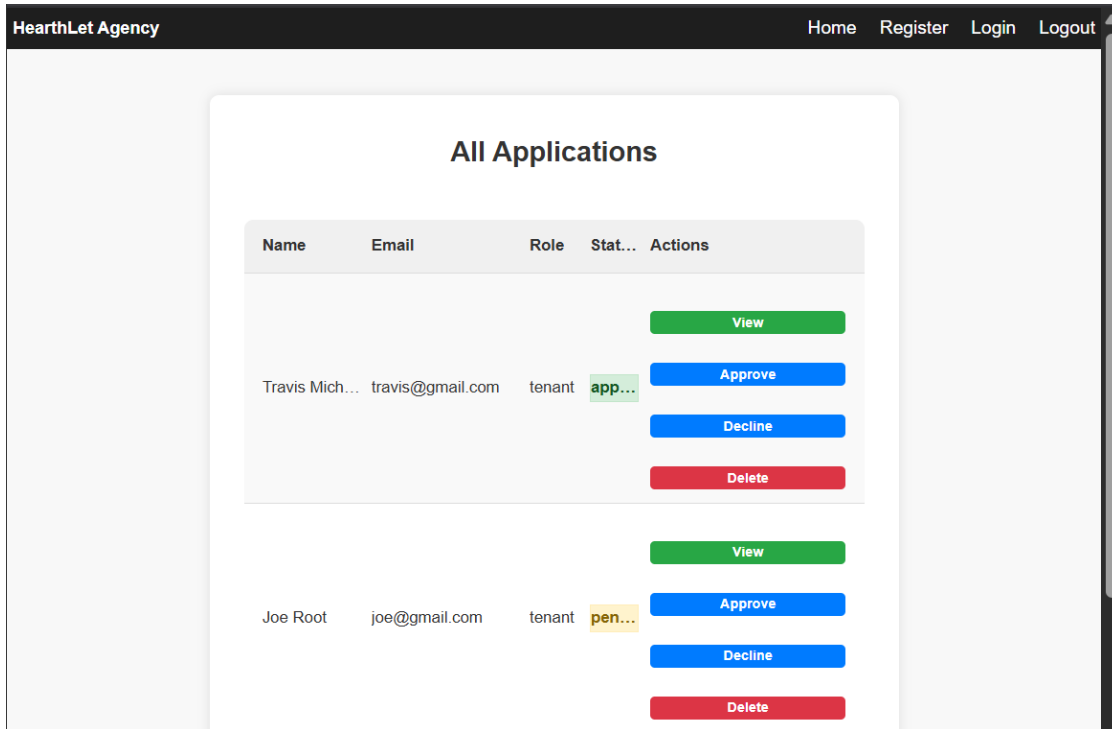
The image shows a web form titled "Edit User". It contains several input fields: "Name" with the value "Sam Curran", "Email" with the value "sam@gmail.com", "Role" with a dropdown menu showing "Landlord", "Country Code" (empty), and "Contact Number" with the value "+353089222222". At the bottom of the form is a blue button labeled "Update".

- Manage Users: Admin can delete accounts of tenants and landlords, but before that cookie message as a confirmation, if they want to proceed with deletion.

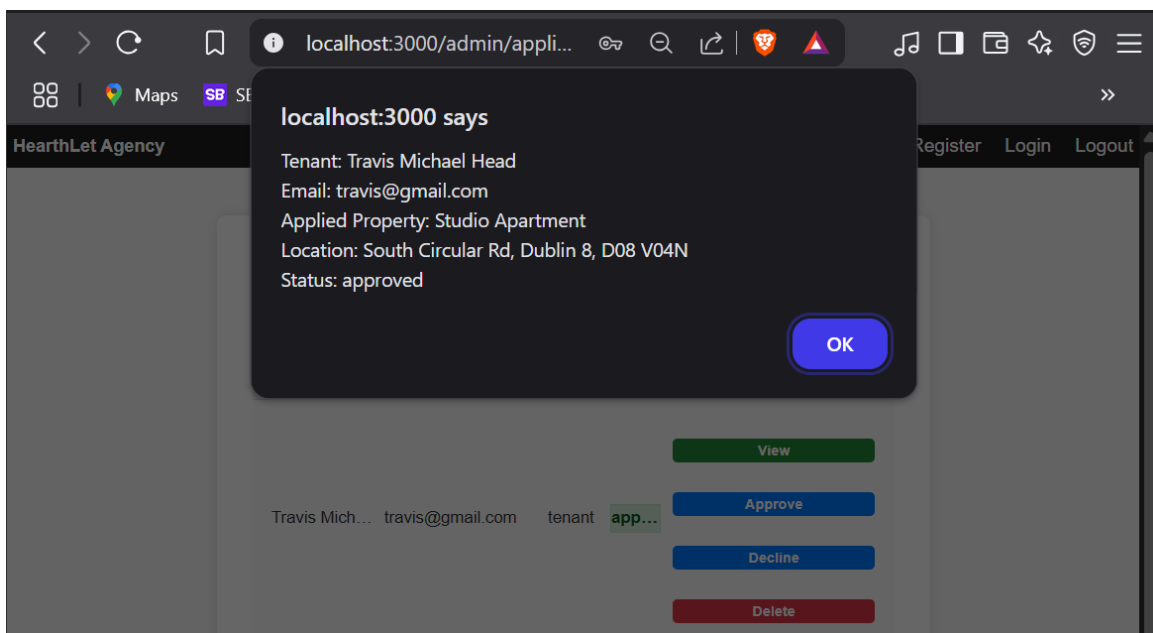


Assignment 3, Build a Property Letting Web Application

- Manage Applications: Admin can view, approve, decline, and delete applications of tenants, but before that cookie message as a confirmation, if they want to proceed with deletion.

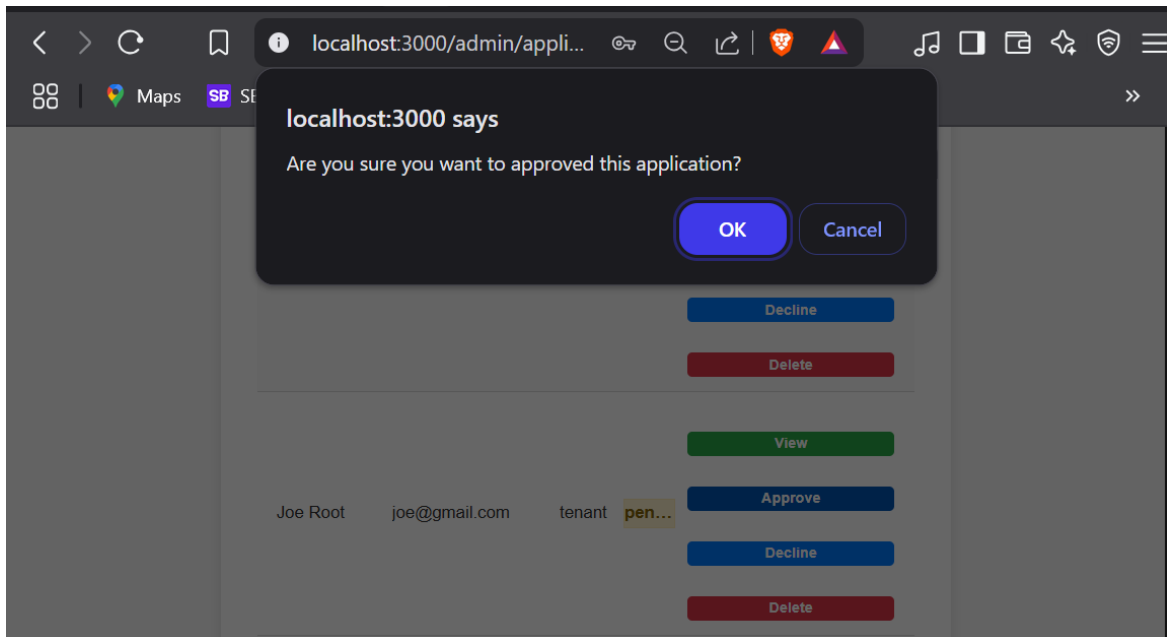


- Manage Applications: when they click on view, it shows the information of tenants, with the detail on the property they applied for with their status as of tenants.

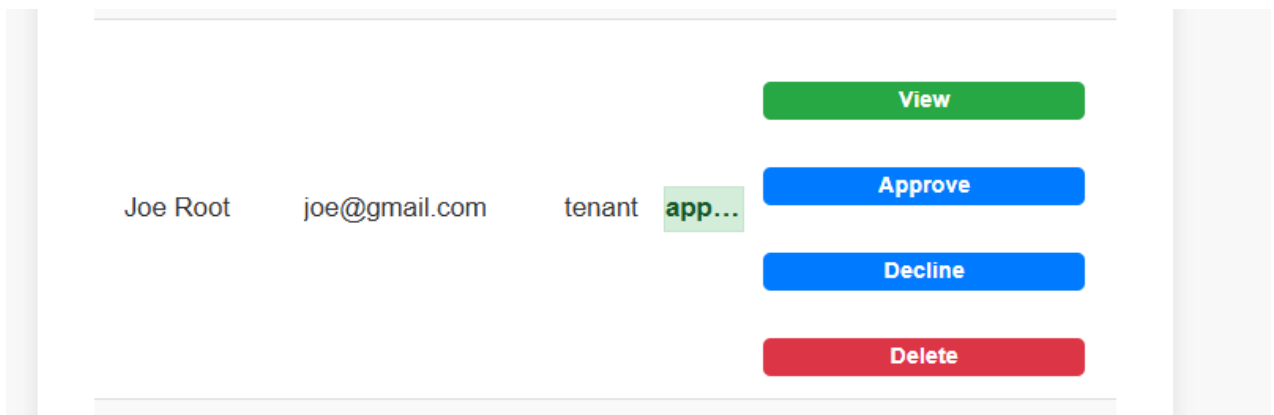


Assignment 3, Build a Property Letting Web Application

- Manage Users: Admin can approve/decline the application submitted by tenants for property, with providing them access to revert the decisions of landlords, but before that cookie message as a confirmation, if they want to proceed with approving the applications.

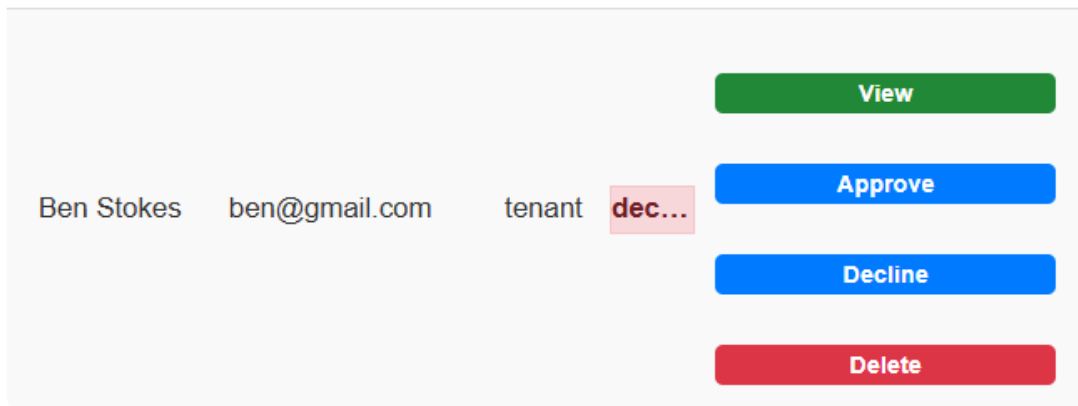
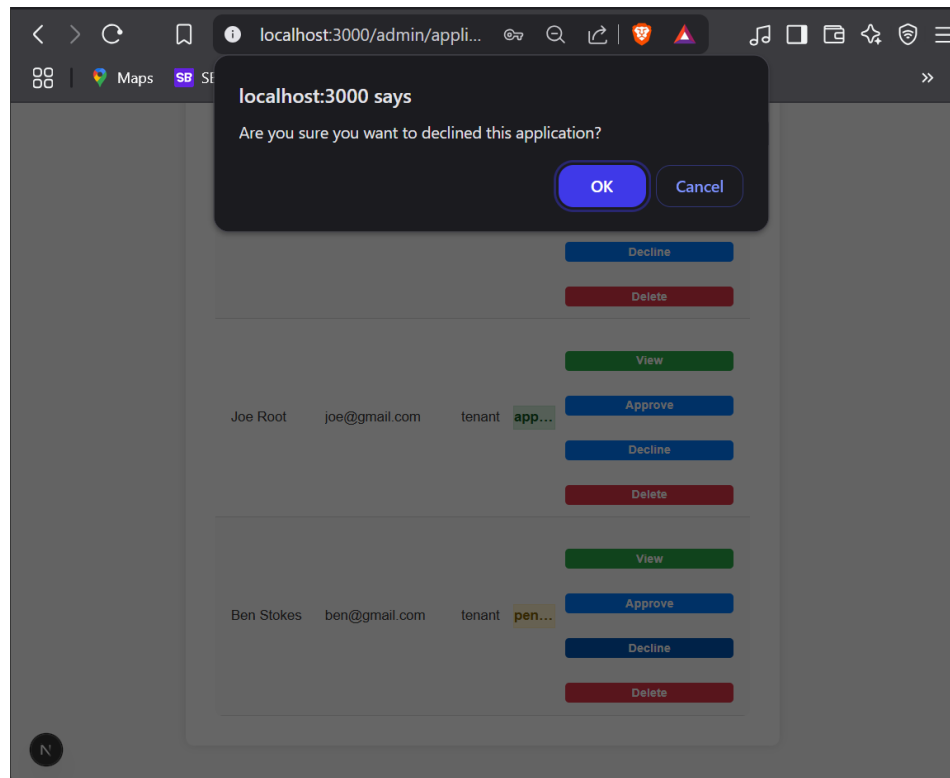


- Clicking on approve/decline it updates the decision everywhere, in landlord and tenants accounts.



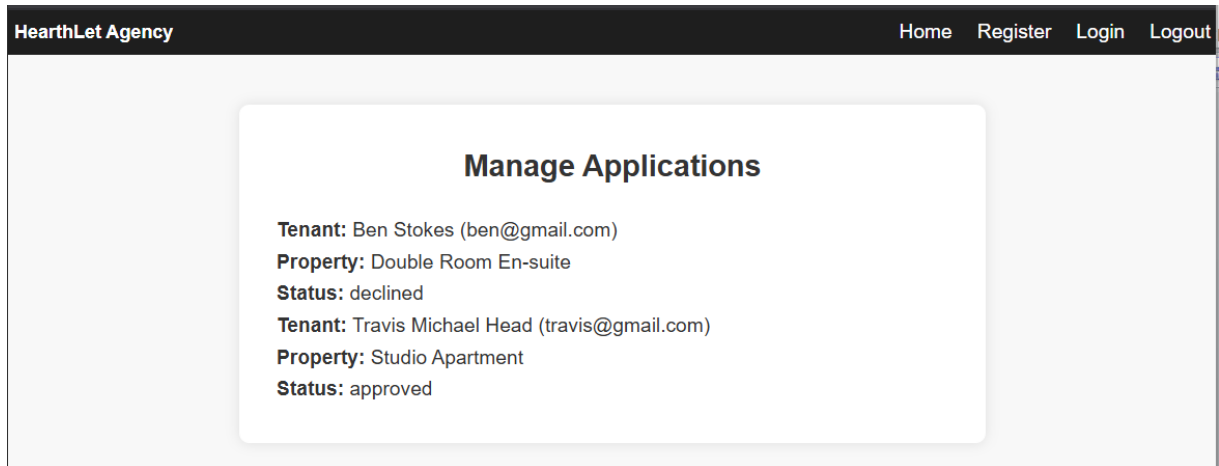
Assignment 3, Build a Property Letting Web Application

- Clicking on decline it updates the decision everywhere, in landlord and tenants accounts.



Assignment 3, Build a Property Letting Web Application

- ❖ Clicking on decline it updates the decision everywhere, in landlord and tenants accounts, as earlier Ben application for “Double Room En-suite” was approved by landlord, but admin can revert back the decisions.



- ❖ Admin Account details:
 - E-mail: admin@gmail.com
 - Password: admin123
- ❖ Landlord Account details:
 - E-mail: sam@gmail.com
 - Password: sam123
- ❖ Tenant Account details:
 - E-mail: travis@gmail.com
 - Password: travis123
- ❖ Landlord Account details:
 - E-mail: phil@gmail.com
 - Password: phil123
- ❖ Tenant Account details:
 - E-mail: joe@gmail.com
 - Password: joe123
- ❖ Tenant Account details:
 - E-mail: ben@gmail.com
 - Password: ben123

- ❖ Images Source:

Property images used in the application interface were sourced from daft.ie. These were used solely for academic and illustrative purposes, and full credit is attributed to daft.ie for the pictures.

Assignment 3, Build a Property Letting Web Application

❖ SQL database:

-- Creating and using the database

```
CREATE DATABASE IF NOT EXISTS property_letting;
```

```
USE property_letting;
```

-- Users table

```
CREATE TABLE users (
```

```
  id INT AUTO_INCREMENT PRIMARY KEY,
```

```
  name VARCHAR(100) NOT NULL,
```

```
  email VARCHAR(100) UNIQUE NOT NULL,
```

```
  password VARCHAR(255) NOT NULL,
```

```
  role ENUM('tenant', 'landlord', 'admin') NOT NULL,
```

```
  contact_number VARCHAR(20),
```

```
  country_code VARCHAR(10),
```

```
  created_at DATETIME DEFAULT CURRENT_TIMESTAMP
```

```
);
```

-- Properties table

```
CREATE TABLE properties (
```

```
  id INT AUTO_INCREMENT PRIMARY KEY,
```

```
  title VARCHAR(255) NOT NULL,
```

```
  type VARCHAR(100), -- e.g. House, Apartment
```

```
  description TEXT,
```

```
  location VARCHAR(100),
```

```
  price VARCHAR(50), -- stored as "value + unit", e.g. "1200 per month"
```

```
  image_url VARCHAR(255), -- support for property image
```

```
  facilities TEXT,
```

```
  landlord_id INT,
```

```
  created_at DATETIME DEFAULT CURRENT_TIMESTAMP,
```

```
  FOREIGN KEY (landlord_id) REFERENCES users(id) ON DELETE CASCADE
```

```
);
```

-- Applications table

```
CREATE TABLE applications (
```

```
  id INT AUTO_INCREMENT PRIMARY KEY,
```

```
  tenant_id INT NOT NULL,
```

```
  property_id INT NOT NULL,
```

Assignment 3, Build a Property Letting Web Application

```
status ENUM('pending', 'approved', 'declined') DEFAULT 'pending',
applied_at DATETIME DEFAULT CURRENT_TIMESTAMP,
FOREIGN KEY (tenant_id) REFERENCES users(id) ON DELETE CASCADE,
FOREIGN KEY (property_id) REFERENCES properties(id) ON DELETE CASCADE
);

-- Insert default admin user
INSERT INTO users (name, email, password, role)
VALUES (
    'Adarsh',
    'admin@gmail.com',
    '$2b$10$6lJmFyDBciK9jtWlqcT3ukix5SDfHui1uChb0w9gP6uMDglfXu1e',
    'admin'
);
```

- ❖ Using bcrypt.hash method for password safety.
- ❖ SQL database testing, to verify informations, if it's VS studio is actually connected to MySQL:

```
MariaDB [property_letting]> SELECT * FROM users;
+----+-----+-----+-----+-----+-----+-----+-----+
| id | name          | email          | password          | role   | created_at          | contact_number | country_code |
+----+-----+-----+-----+-----+-----+-----+-----+
| 1  | Sam Curran    | sam@gmail.com  | $2b$10$EIdUSCsJMtVrZ2EVkbwi.Yu10a06z8Ch1ABfp13B7d6MJ9D5oIOS | landlord | 2025-05-13 14:42:10 | +3538892222222 | NULL         |
| 2  | Travis Michael Head | travis@gmail.com | $2b$10$2bFF.TPv5PrvgPzmWjE3o.kf9NRVdg/YggDKLLA6JrQ5ovxcVBMBe | tenant   | 2025-05-13 18:03:35 | +3538894444444 | NULL         |
| 5  | Adarsh        | admin@gmail.com | $2b$10$6lJmFyDBciK9jtWlqcT3ukix5SDfHui1uChb0w9gP6uMDglfXu1e | admin    | 2025-05-13 19:06:33 | NULL           | NULL         |
| 7  | Phil Salt     | phil@gmail.com | $2b$10$1IqepXUtbPacu9WEDBGuoWc30eQRMyGyIH6010W/CQ3E3msGe | landlord | 2025-05-14 01:31:59 | +3499999999999 | NULL         |
| 8  | Joe Root      | joe@gmail.com  | $2b$10$X2R2o92dfuENJdlABYuT0uamGoFRAp33vuUVKfI678VmkUyY/d4o6 | tenant   | 2025-05-14 01:41:27 | +348976543201  | NULL         |
| 9  | Ben Stokes    | ben@gmail.com  | $2b$10$mPbeX02Ga7QXZCQT3weEw.uJHeobygcKxc3BwPUF7ihU5zRwAp7Xe | tenant   | 2025-05-14 05:34:28 | +3538899999999 | NULL         |
+----+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.008 sec)

MariaDB [property_letting]> SELECT * FROM applications;
+----+-----+-----+-----+-----+
| id | tenant_id | property_id | status | applied_at          |
+----+-----+-----+-----+-----+
| 3  | 2         | 2           | approved | 2025-05-13 23:33:00 |
| 4  | 8         | 3           | approved | 2025-05-14 01:42:02 |
| 5  | 9         | 4           | declined | 2025-05-14 05:35:18 |
+----+-----+-----+-----+-----+
3 rows in set (0.004 sec)
```

```
MariaDB [property_letting]> SELECT * FROM properties;
+----+-----+-----+-----+-----+-----+-----+-----+
| id | title          | description          | location          | price          | image_url          | landlord_id |
+----+-----+-----+-----+-----+-----+-----+-----+
| 1  | Studio Apartment | This stylish studio apartment offers the perfect city-center lifestyle, just a 5-minute walk from shops & cafes, with a bus stop right at your doorstep. The spacious, sunlit room is fully furnished with modern comforts, including a plush bed, sleek kitchenette, ideal for professionals or students seeking a luxurious, move-in-ready home. | South Circular Rd, Dublin 8, D08 V04N | 2451.5 per month | /images/1.jpg | 1 |
| 2  | 2 Bed,2 Bath Apartment | Available from May 15th, this beautiful two-bedroom, two-bathroom furnished apartment on the 3rd floor boasts interior-designed finishes and comes with two designated parking spaces. | Lansdowne Road, Dublin 4 | 6250 per month | /images/2.jpg | 7 |
| 3  | Sharing Apartments | Parking, Central Heating, Alarm, Cable Television, Washing Machine, Dryer, Dishwasher, Microwave, Pets Allowed, Internet, Gym, Entertainment Rooms | Saint Kevin's, Dublin 6 | 210 per week | /images/3.jpg | 1 |
| 4  | Double Room En-suite | Two double bedrooms (each with private bathroom) available in a friendly residential area. No pets or overnight guests. One month's rent security deposit required. Too good for professionals seeking comfortable shared living. | Central Heating, Cable Television, Washing Machine, Microwave, Internet, Laundry | 2025-05-14 02:41:45 |
+----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.003 sec)
```