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# Home Away From Home

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# Home Away from Home

By

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GRADUATE CAPSTONE SEMINAR PROJECT

Submitted in partial fulfillment of the requirements

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With a Major in Computer Science

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# ABSTRACT

Home Away from Home is a web-based e-commerce application for renting homes or apartments. This application provides property owners to advertise their homes in this online application and lease them to renters for a short period. In our project we will create a web-based application which helps the transactions of property-rentals between the owners and the renters.

Its functionalities should include uploads, setting, auditing, property listings, bookings, payment processing, post-rental ratings, surveys, Web mapping and more. There are three types of user accounts: admin, owner and renter. Each of these roles can manage its own profile and setting and has its specific authority and restrictions.

The operating system that to use this Web-application is Windows 7 and the user interface of the application is Html5, Css3 and Bootstrap and we use jQuery as a client-side scripting. Our IDE is Visual studio 2017 community edition and the database is SQL.

We will be including six major modules or functionalities in our project. User login and User Registration and updating their respective data. Master user creation and Renter registration and update on. Add property data uploading images and details of property master user. User interface for searching property. Customer data filter module. Change password functionality for admin/Renter and owner. These six are our major modules in our project.

# Table of Content

## 1    Project Description

HomeAway is an online rental application that caters to the needs of people who are planning for short vacations. The properties on this website are listed by actual Owners and approved by the Admin thereby eliminating the need of middleman and decreasing the cost and burden on the customer. The user can sign up and have a look at all the properties listed on the website. Additional feature available for the customer is to filter his options location wise and pay online in advance for reservation confirmation.

The Home Page welcomes the user with a fresh look allowing them to register on the website. The Home Page includes a property search option, vacation start and end dates, no. of guests and search option to list out the available property. All the 3 main entities Admin, Owner and Customer need to register on the website for hands approach and successful transactions.

For the Admin Role: Admin can follow a good process of going around step by step or he can jump around to any option whenever required. Usually this is how a process goes:



Figure 1 – Admin Role

For the Owner Role: Owner can follow a good process of going around step by step or he can jump around to any option whenever required. Usually this is how a process goes:
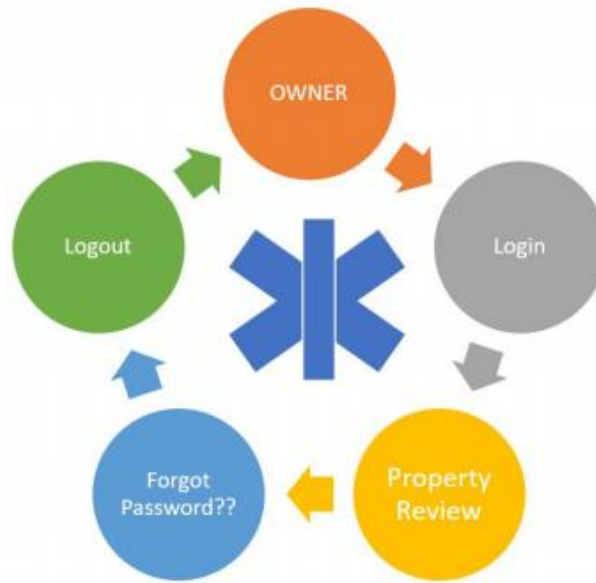


Figure 2 – Owner Role

For the Customer Role: Customer can follow a good process of going around step by step or he can jump around to any option whenever required. Usually this is how a process goes:
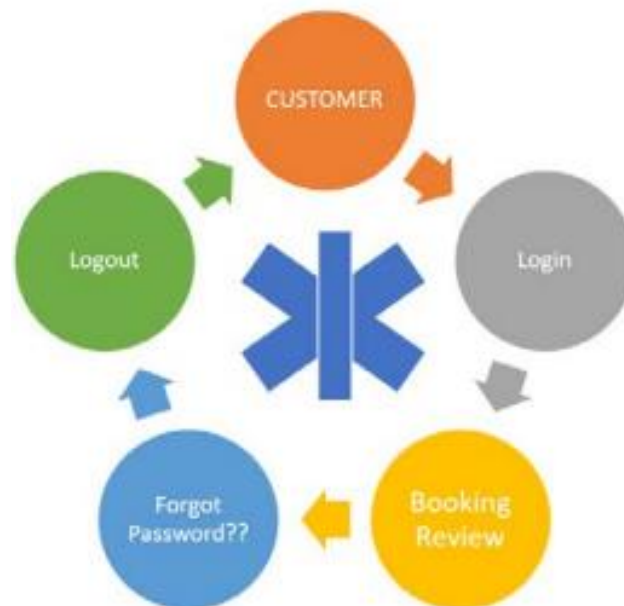


Figure 3 – Customer Role

## 1.1   *Competitive Information*

Though the application is not new in the Online Rental Industry which is very well an established market which is growing at a tremendous pace. The aim here is to provide some very high-end user services than in the present market today. Features embedded are relatively better than our competitors making things User friendly navigation, listing the property after proper verification, real time booking overcoming some

real-time issue like two people end up paying for the same property on the same date. Security also being the main concern in case user data, financial information and property information all data are tracked on regular basis as a good sign.

## 1.2    Relationship to Other Applications/Projects
While we compare with other application websites like Airbnb you can see the login steps and payment will take long to execute their booking for rental with in less span of time in our project you can see the login user will be able to do the transaction and booking faster than compared to other rental services. There are such a variety of uses like our project, yet the significant relationship is making a Home Away from Home. Other than that, we have variation highlights from another rental site.

## 1.3    Assumptions and Dependencies
- Any advancement deployment site needs to use toward the begin of the project will at present be accessible to the entire course of the improvement procedure.
- An arrangement of necessities manages the need to make the Home Away from Home. The advanced note pad ought to be sufficiently quick that execution issues don't hinder for short time rentals. Our present project models are sufficiently quick, and we are expecting that in the following refreshing equipment will be satisfactory to meet the required needs.

## 1.4    Future Enhancements
The equipment and the product of the advanced rentals thought to be sufficiently solid that it can be effectively accessible to the clients when they require it and ought to give sensible ensures that data or information, once completed, speed up the load of website through server and hyperlink for loading images faster

## 1.5    Definitions and Acronyms
Several acronyms will be used. Their definitions are:
Varchar: Variable character
Int: Integer
Pwd: Password
Lat: Latitude
Lon: Longitude.
Transid: Transaction ID

## 2    Project Technical Description

The project is built with the technologies are for database: SQL Server Management Studio 2014 and for development of code is front end: Visual Studio 2015 This project of pictures, recordings, content information design. Where the records can be put away in all sort of arrangement Pdf adaptation, word, jpg and so forth. Where we can get the log passages of the signed in clients which is one of the illustrations, those log sections will be imprinted in pdf arrange. Significant components incorporate front page with a menu, administrator reassure for site organization, a rundown of existing undertaking and making of new projects, list of chapters, ordered posting of log passages, pages with sight and sound, look, date-book of

occasions, and so on. Key functionalities incorporate client login, log section frames, document transfer work, changing over HTML to PDF, log printing, and so on.

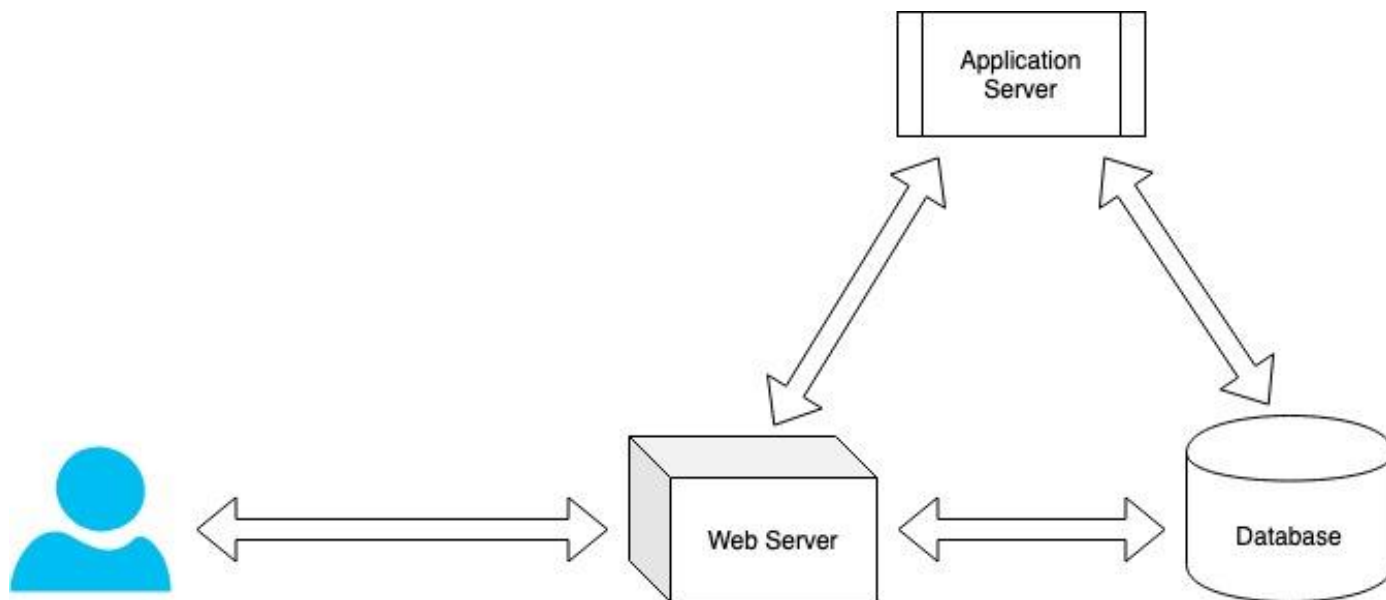## *2.1    Project / Application Architecture*



Figure 4 – Application Architecture

An *application architecture diagram* provides a high-level graphical view of the application architecture, and helps identify applications, sub-applications, components, databases, services, etc. and their interactions.

In the above figure Interactions between the user, web server, database, and application server are displayed.
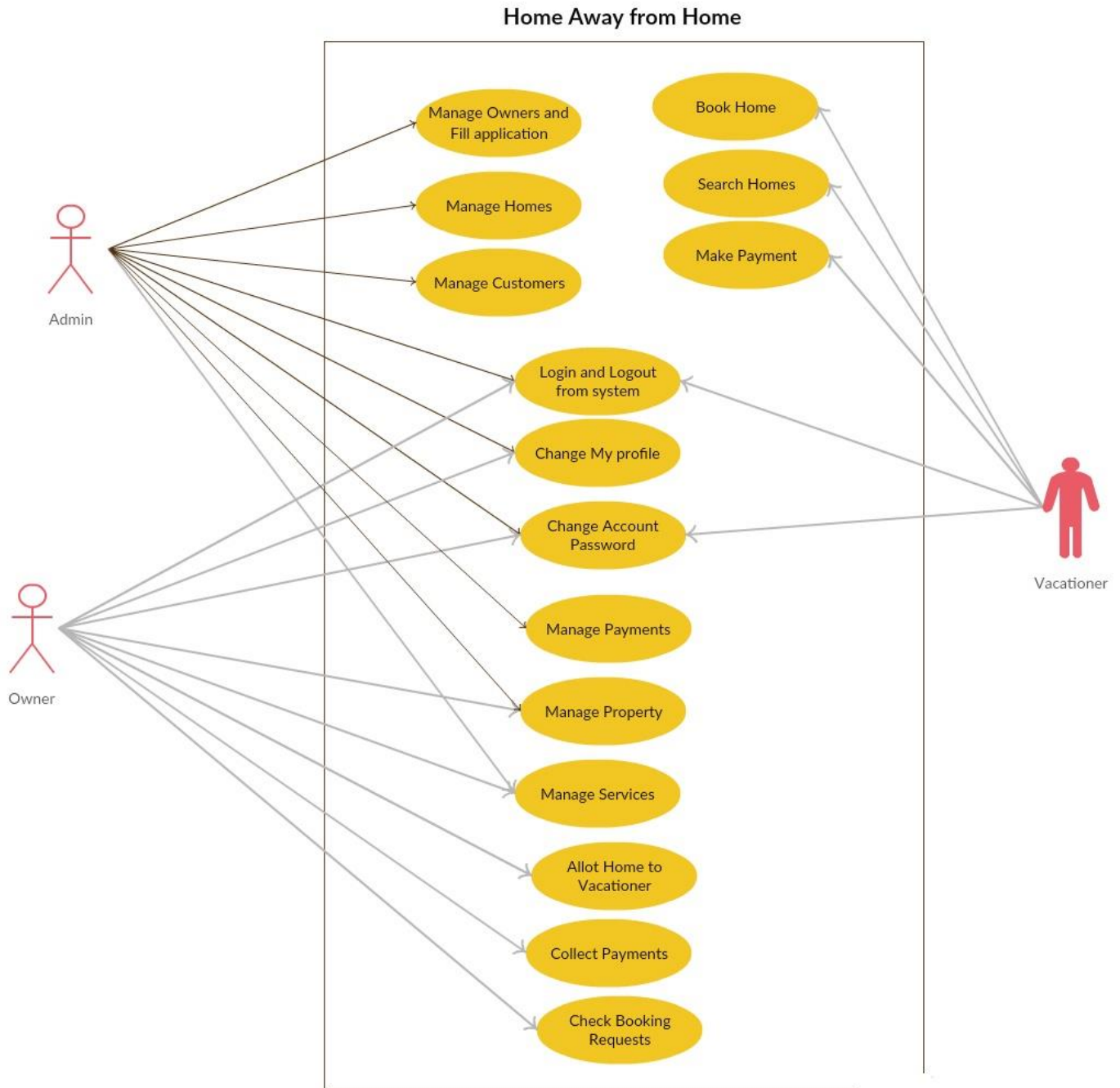
**Use Case Diagram**



Figure 5 – Use case Diagram

## 2.2 Project / Application Information flows

- Login page consists of user, rental and to login to Home Away from Home.
- All the user, Renter administrator login activities will be stored in the back end of database.
- Admin can able to provide the user id and password in case they have any issues.
- Admin can able to send message to renter and owner any kind of notification.
- Unique email id will be available for renter and owner to sign up.

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## 2.3 Interactions with other Applications

A web application typically has several activities. Each activity displays a user interface that allows the user to perform a specific task. The application takes the user from one activity to another, when the user passes an intent to the system, the system will identify and start the appropriate app component. This allows application to start an activity that is contained in a separate app.

When an owner or renter clicks on the maps the web application will takes the owner or renter to google maps. Whereas, by clicking on PayPal the web application will be redirected towards PayPal.

## 2.4 Capabilities

Some capabilities provide apps with access to a *sensitive resource*. These resources are considered sensitive because they can access the user's personal data or cost the user money. Privacy settings, managed by the Settings app, let the user dynamically control access to sensitive resources.

- The **userAccountInformation** capability gives apps the ability to access the user's name and picture.

## 2.5 Risk Assessment and Management

In chance appraisal, the whole procedure of hazard administration is finished by giving approaches to deciding the wellsprings of computerized building journal chance, and once dangers or issues have been discovered, overseeing them through; executing of hazard measures for their avoidance, moderation, or finish lessening; assessing hazard impacts on the site is finished. 5 | Page To the extent we are concerned we discovered security of the data in the computerized scratch pad is principle hazard. We attempted to defeat that utilizing single administrator framework in our venture.

## 3 Project Requirements

## 3.1 Identification of Requirements

This section application clarifies about of the utilization of named and listed necessities to recognize and number prerequisites.
• Specific – focus on a range for development.
• Achievable – indicate what will be expert
• Realistic – state what results can reasonably be accomplished, given accessible assets.

Our site is Admin expert based. Each client or colleague can utilize site with the one-time consent of the administrator, later administrator can alter or erase the client profile. Along these lines the data in the site will be secured and checked. Every one of the operations in the site will be controlled and kept up by administrator. The clients or colleagues have restricted access to the site, even though they can do all the essential operations to finish their project.

## 3.2 Operations, Administration, Maintenance and Provisioning (OAM&P)

Each feature of an entity on Home away from home web application has countable operations, administration responsibilities and certain maintenance plans for proper functioning of the application.

Registering all 3 entities Admin, Owner, and Customer, login / logout, forgot password function to recover the password, ability for the Owner to add a property, images, and facility details, ability for the admin to make changes for both Owner / Customer, ability for the customer to search property location wise as per availability, make reservations and help customer review and comment on the property about their facilities.

## 3.3    Security and Fraud Prevention

The Security and prevention will be taken care by administrator with the help of log entries admin can able to see what the users logged in and logged out. If the user not logged in for log time as per the project regulations for 3 or more months that account will be deactivated by the administrator. User credentials can be created by administrator or they can go the website and signup tab and they can able to create account. Fraud prevention will take place a major role to in project where the hackers can able to get information and hack the website where specific firewall will be created and monitored on timely basis to prevent the fraud activities. If the password is entered incorrect more than 3 times, then the account will be locked should be able to contact administrator.
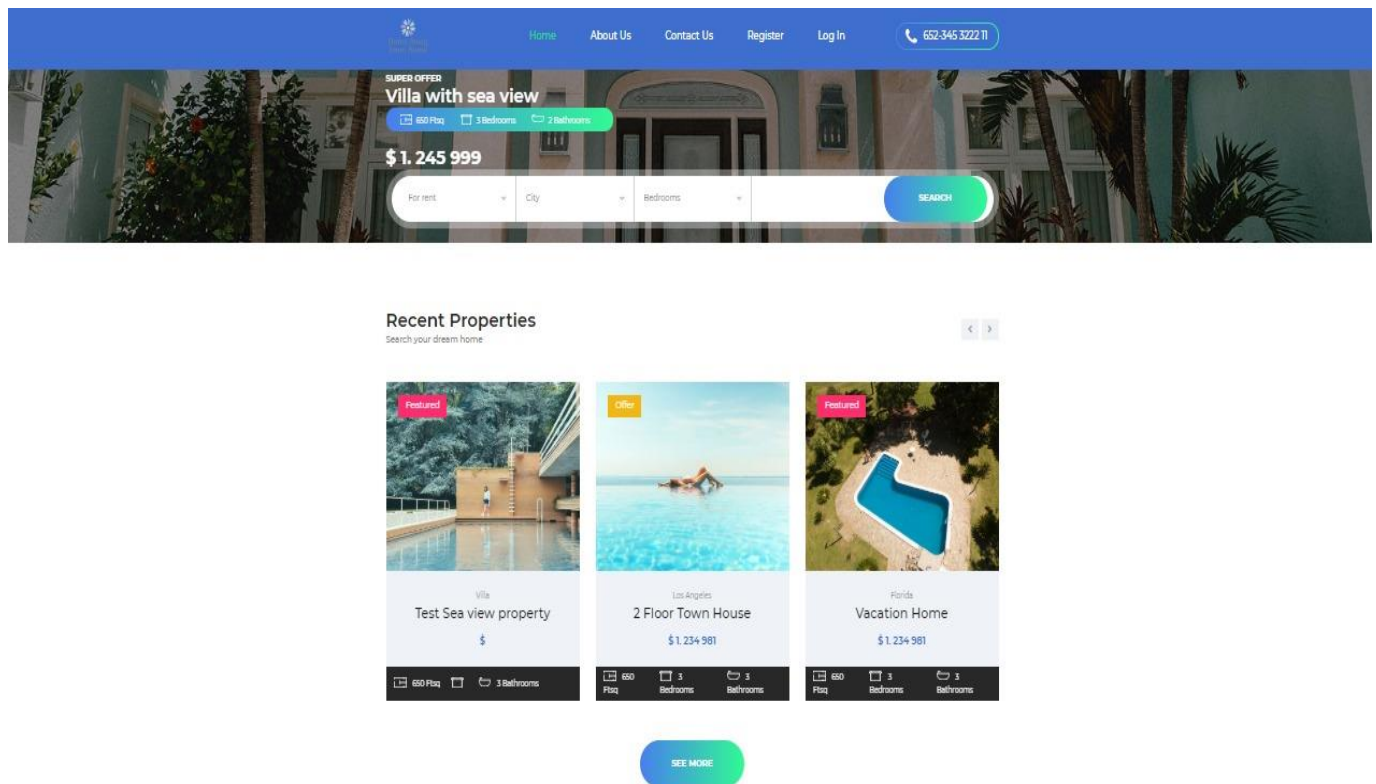
## 3.4    Screenshots



Figure 6 - Home Page

This Home page shows the data of few properties including with a search bar where a renter can filter search the property.

Figure 7 – Registration Page

This registration page helps the renter to create an account with Home Away from Home web application.



Figure 8 – About Us

This page shows a brief information about the Home Away from Home web application.
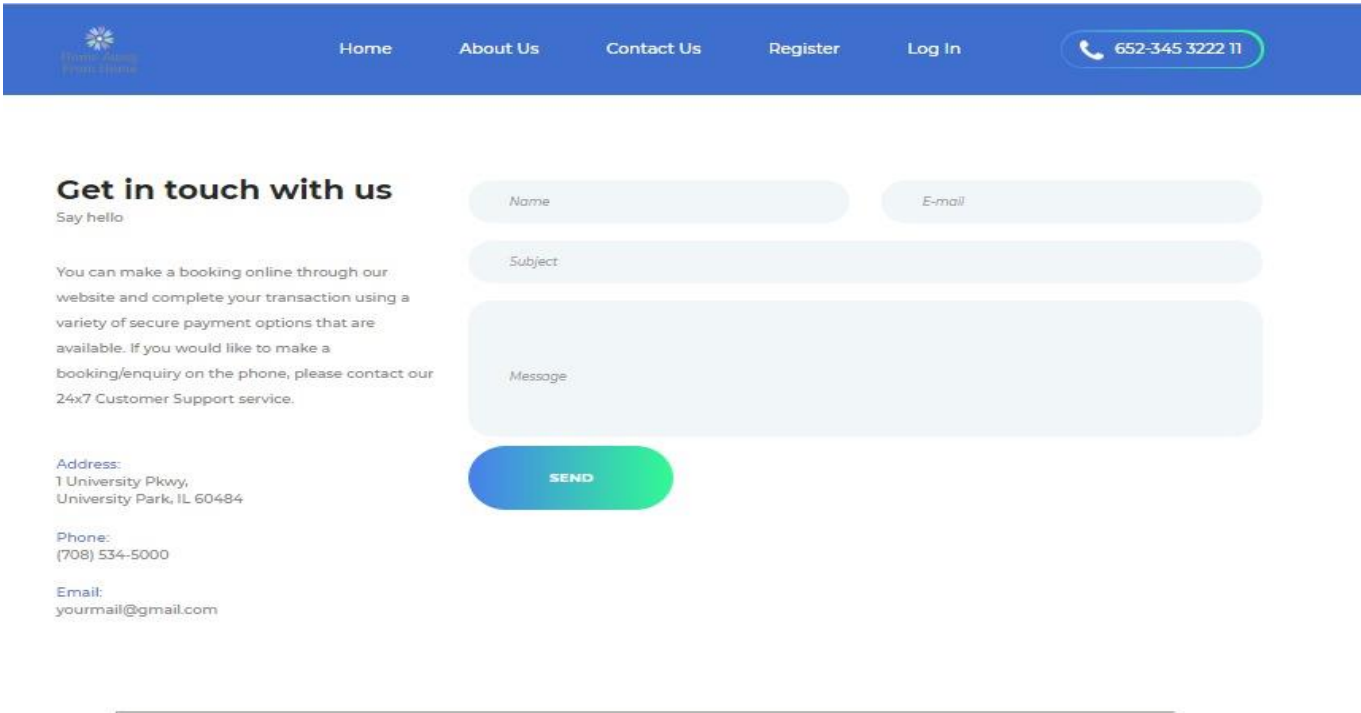
Figure 9 – Contact Us Page

This page shows the details of administrator and the renter or owner can add a message send to the administrator.
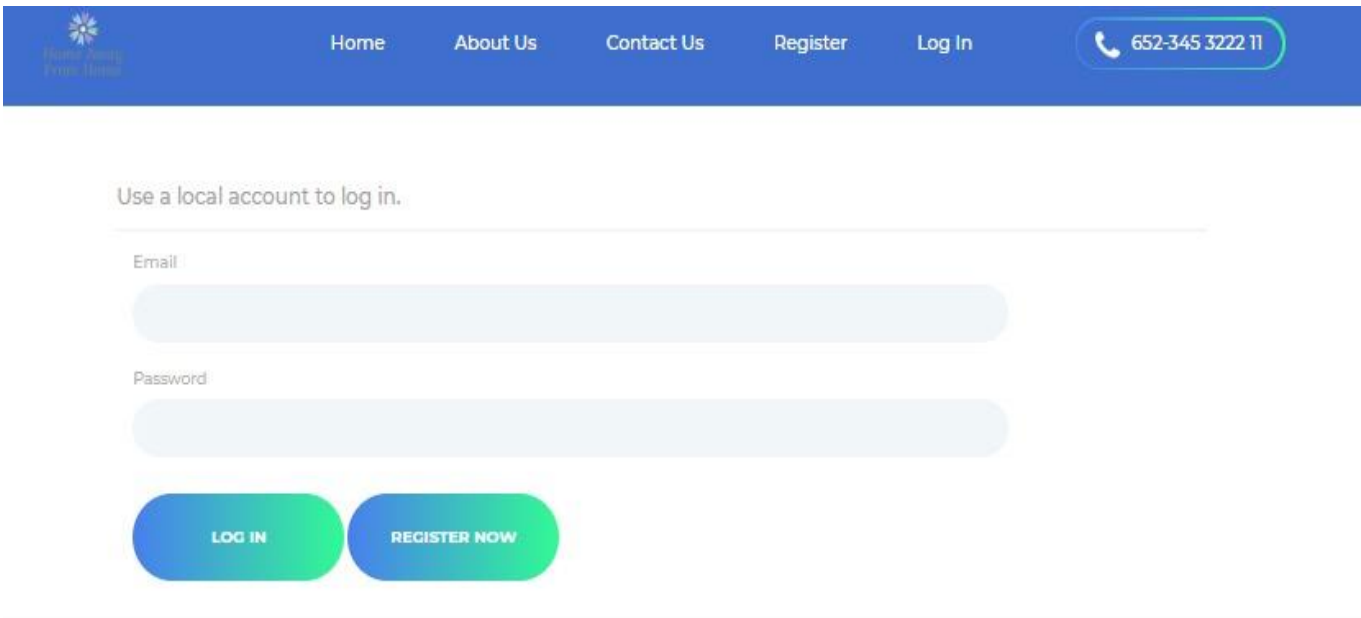


Figure 10 – Login Page

Here Renter is going to sign-in with email and password. If it is their first time they need to sign up with their credentials.

Figure 11 – Owner Dashboard

The owner can add property details in the page that includes address, cost of house per day, name, description, and can add photos of the home.



Figure 12 – Billing Information

By using this page, the renter can pay for a house in advance and reserve the house by providing his/her payment information. This payment way includes PayPal and Bank transfer.

Figure 13 – Payment information

In this page the payment information will be stored in the database.



Figure 14 – Booking History

In this page the renter can view his previous booking in this application.

Figure 15 – Customer Feedback

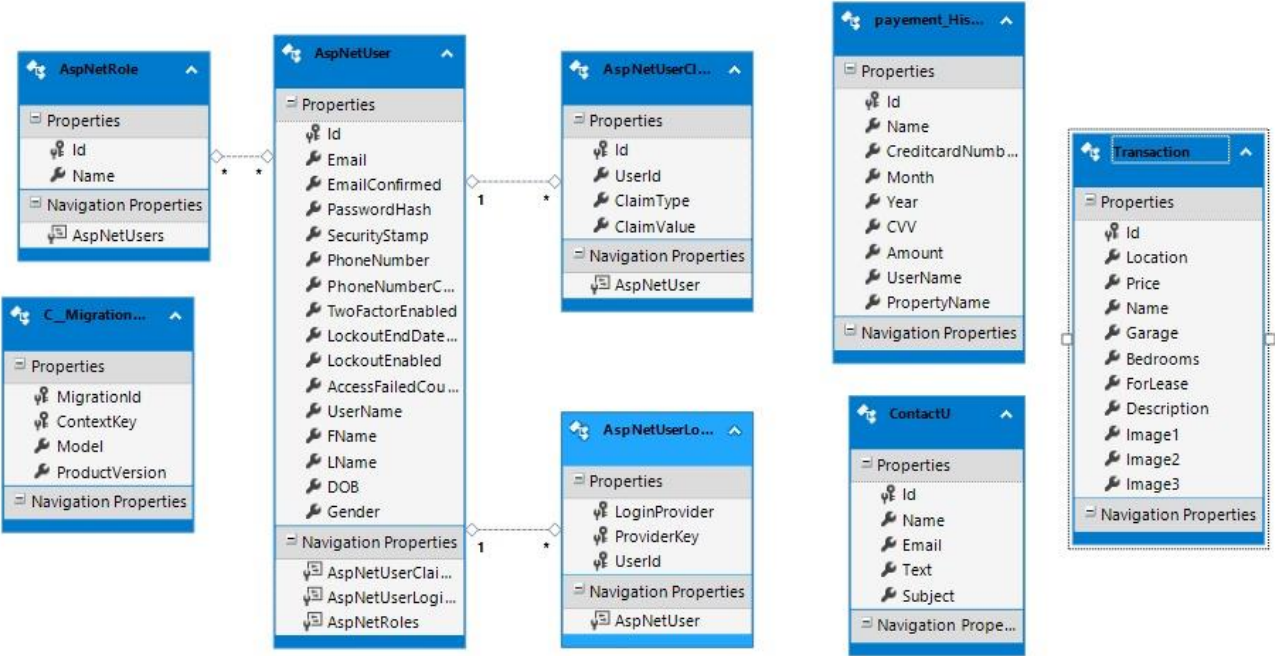By using this page, the renter can post his feedback about his stay in the house.



Figure 16 – Database Architecture

The above diagram shows the web application database table architecture.

## 4    Project Design Description

The following activities will be available in current project.

- Admin able to login and logout.
- Owner login and logout.
- Renter login and logout.
- Owner and Admin authentication and authorization.
- Admin has the capabilities to provide the authentication to Owner and Rental logins.
- Renters and owner's username and password and email address can only visible to administrator.
- Log entries information will be available with the admin to check what time all the user logged in and time of logout where those can be printed by log records.
- Signup and forgot password are available for new users and existing users.
- Once admin login he can able to see how accounts are created in Owners tab and Renters tab.
- Owners tab consists of options like add property, update password, feedbacks.
- Renters tab consists of options like search property, booking history, update password.

## 5    Project Design Units Impacts

### 5.1    Functional Area/Design Unit A

#### 5.1.1    Functional Overview

- The Renters, owners and admin are the three users who will be able to login to project.
- Admin plays the major role in this kind of project where each front and back end issues will be monitored by him. He can able to handle their user credential issues.
- If renter logs in, he can able to search for the property's and go through the list of them and then once he selects any book it will be added to his booking history for the future references.
- Feedback is one of the sections once the renters book any property and once, they check out they can able to provide the feedback of that property which helps for another user to go through it.
- Owners can be able to add the new property or existing property with the help of images, or videos so that the renters can able to view them and book the property.

#### 5.1.2    Requirements

This project prerequisite comprises of search property with specific date and cost based which comprises of clients can build up the venture with the documentation with the of the recordings and pictures. Administrator can ready to make the clients with the one of a kind secret word, where the client confirmation is required. Administrator can run the log sections which will ready to show up the login and logout points of interest to do the print in PDF organize. Where we can perceive what number of clients signed in today to the note pad.

### 5.2    Functional Area/Design Unit B

#### 5.2.1    Functional Overview

Admin, Renter, Owner able to login and logout. Owner and Admin authentication and authorization. Admin has the capabilities to provide the authentication to Owner and Rental logins. Renters and owner's username

and password and email address can only visible to administrator. Log entries information will be available with the admin to check what time all the user logged in and time of logout where those can be printed by log records. Signup and forgot password are available for new users and existing users. Once admin login he can able to see how accounts are created in Owners tab and Renters Tab. Owners tab consists of options like add property, update password, feedbacks. Renters tab consists of options like search property, booking history, update password.

### 5.2.2    Requirements

This project consists of full of images where the property explanation can be only done through the images or videos where the renters can be able to view the property. Admin can ready to make the clients with the unique watchword, where the client validation is required. Administrator can run the log passages which will ready to show up the login and logout subtle elements to do the print in PDF arrange. Where we can perceive what number of clients signed in today to the PDF.

## 6    Acknowledgements

- This Project is created and developed with my own knowledge and the document by myself.
- I really appreciate my professor X. Chen who help me a lot in completing this whole project. Thanks a lot for your time and patience

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