



Daffodil
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Project Title: Web Based House Rental System

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The prerequisites for the Bachelor of Science in Software Engineering have been met by the submission of this project report.

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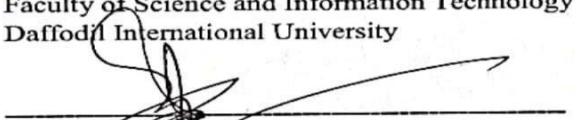
This project titled on “**Web Based House Rental System**”, submitted by **Sadia Faizah (ID: 172-35-2209)** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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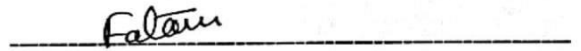
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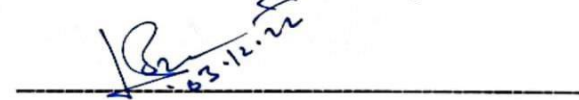
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DECLARATION

I hereby declare that I have done this project under the supervision of **S A M Matiur Rahman, Associate Professor and Associate Head**, Department of Software Engineering, Daffodil International University. I also declare that this project is my original work for the degree of B.Sc. in Software Engineering and that neither the whole work nor any part has been submitted for another degree in this or any other university.

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Acknowledgment

At first I would like to thank Almighty Allah who is the most merciful, that I have done well and complete my project. Without His grace it's not possible. I would like to thank my family, friends and respected teachers. All of them are very friendly and supportive. I'm grateful to S A M Matiur Rahman sir for his continuous support for the project, he inspired me a lot. There are times when I wanted to give up but everytime I wanted to quit he inspired me to start again. He is a very good inspiration to me. I am happy that I've done my project within the given time by project/thesis committee. As it is my final year project, I wanted to give as much as possible what I learnt in this degree to this project. I'm thankful to all the teachers , they teach me well and I can gather many knowledge with the help of them.

Abstract

Innovation happened when we have the need. Without the need there will be no innovation. As people has need of new things daily, so innovation of new things is keep going and going to meet those needs. The idea of making this project is another need of people. This system helps people to find their desired residence without moving here and there, it is a time saving project. As people are very busy these days. Most of the people have to work outside of their home as well as at their home. So it's obvious that they don't have much time to waste. For this era it is waste of time to search for their home from one road to another by physically. At this digital era, we should think everything digitally. So instead of going physically road to road to find home, people should search it on online. To meet this I have the idea for this project. This will help people to find their renting home by a click on online. It's time saving, also energy saving. I hope, this will help people to make their life easy and use their time wisely.

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CHAPTER 1: INTRODUCTION

1.1 Project Overview:

This is a web based house rental system. In this system admin login to the system and they can add new post about the vacant houses. They can update the information of houses and also can delete post. Customer can login to the system and then see the dashboard. They can search homes in their preferable location. If they found home which are suitable then they can rent the house if the house is available. Admin can see the renters, manage records.

1.2 Project Purpose:

By this project, people can easily find their renting home. As people are very busy these days, so it is difficult for them to go here and there to find a suitable home. For this people don't have to make extra time after their work, to go find a home in physically. It is time saving, also energy saving. People can search it from home, work even from office.

1.3 Background:

At the starting of my university life, I saw many of my friends facing much problem to find their accommodation. That time I thought it would be much easier for them to find their accommodation if there was any online platform to search renting homes. This was the main event when this idea came into my mind and I started thinking about it.

1.4 Benefits and Beneficiaries:

Main benefit of this project is- people don't have to find their homes physically , they can search it online. So it's time efficient also energy saving. Customers are benefitted by this, as it saves both time and energy.

1.5 Stakeholders:

We know in any project or organization whom are influenced or can influence are called stakeholders. Here, admin and customers are the stakeholders.

1.6 Proposed System Model:

I wanted to create a user friendly system, so this model is to control the system architecture.

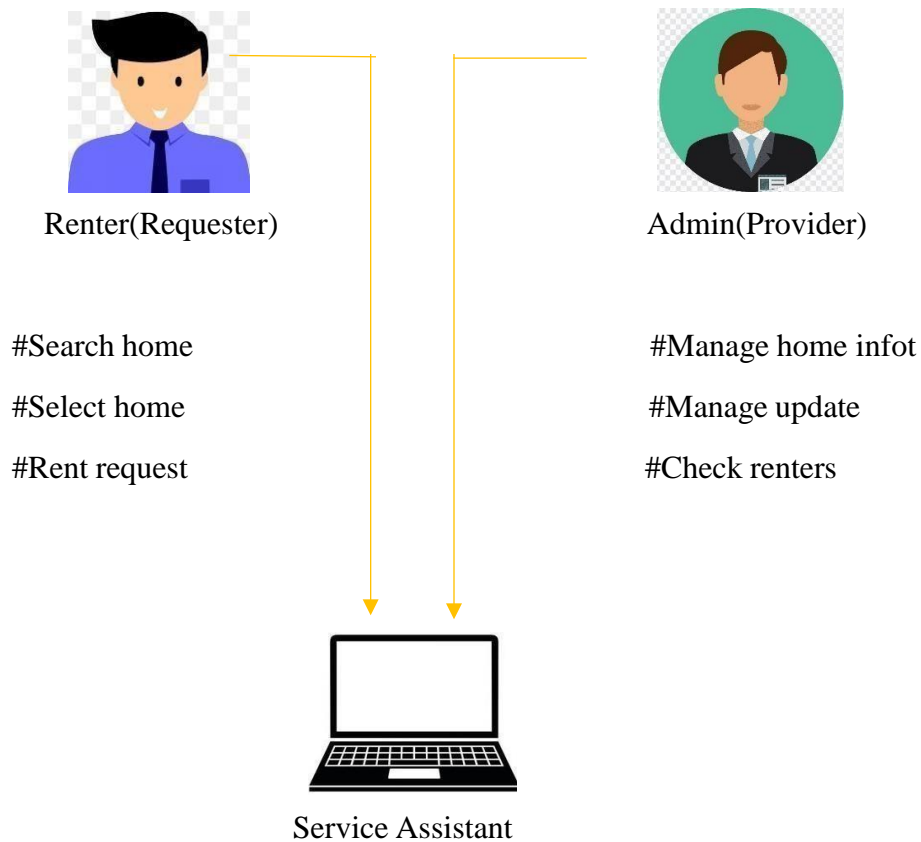


Figure: Proposed System Model

1.7 Limitations:

While developing the system, there occurred some limitations. The main limitation is “stable internet connection”. Without internet, the system won’t work.

1.8 Expected Result:

The expected results of the project is admin can manage house information and customer can easily find a suitable home for rent.

1.9 Project Schedule:

For completing the project in time , I had to make a time schedule. It helps me to organize my work easily and help me to finish all work properly.

1.9.1 Gantt Chart:

Activities	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
Project proposal	■											
Planning		■										
Design			■	■								
Development					■	■	■	■				
Testing									■	■		
Finalization											■	
Documentation												■

Table 1.1: Gantt Chart

1.9.2 Release plan and Milestone:

The release plan and milestones are given below:

Activities	Duration	Total Week
Project proposal	W1	1
Planning	W2	1
Design	W3,W4	2
Development	W5,W6,W7,W8	4
Testing	W9,W10	2
Finalization	W11	1
Documentation	W12	1

Table 1.2: Release Plan

CHAPTER 2: REQUIREMENT ENGINEERING

2.1 Functional Requirements:

A system is defined by functional requirements. Actually it tells us how the system should behave which means what the system should do. The more it meets the requirements, the more efficient the project is. It is defined at use case.

Functional Requirements of this system are:-

FR ID	FR Name	Description
FR01	Sign up	Renter can sign up.
FR02	Login	Admin, Renter can login.
FR03	Manage details	Admin can add/update/delete home information.
FR04	Search	Renter can search home.
FR05	Rent	Renter can rent the vacant home.
FR06	home list	Admin can see home list.
FR07	Manage renter	Admin can manage Renter .
FR08	Logout	Admin, Renter can logout.

2.2 Non Functional Requirements:

Quality attribute of a system is defined by Non-functional requirements . It specifies how the system should fulfill functional requirements. It is good to meet these requirements. It is defined as a quality attribute.

Non Functional Requirements of this system are:-

- Quality
- Security
- Usability
- Reliability
- Availability
- Maintainability
- Performance

CHAPTER 3: SYSTEM ANALYSIS, DESIGN

3.1 Development Model:

I adopted Iterative enhancement model for my project. The shortcoming of waterfall model removes by it. When we have several independent units which don't depend on each other then we use Iterative enhancement model.

This model has similarity with waterfall model, exception is it allows repetition of the design process. product released after every step. Lesson learnt feed in next step.

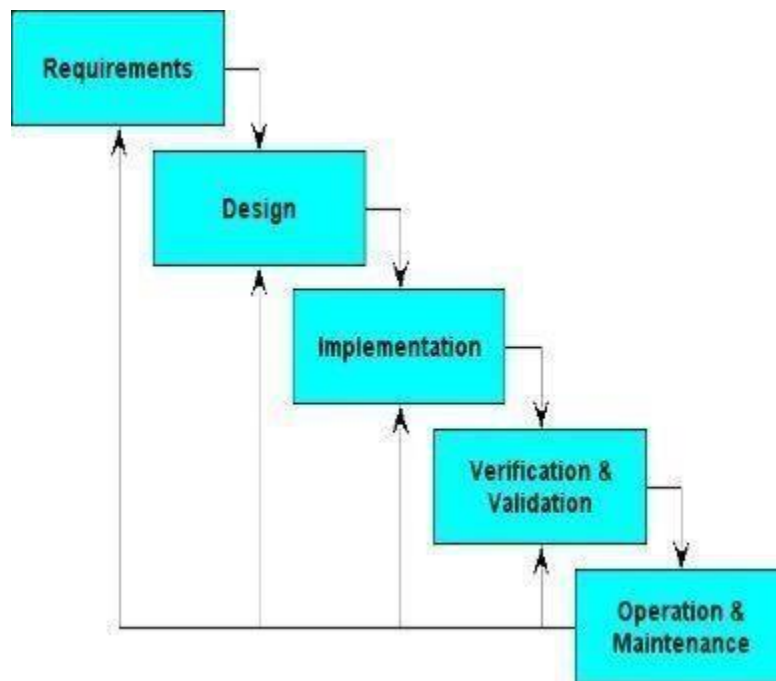
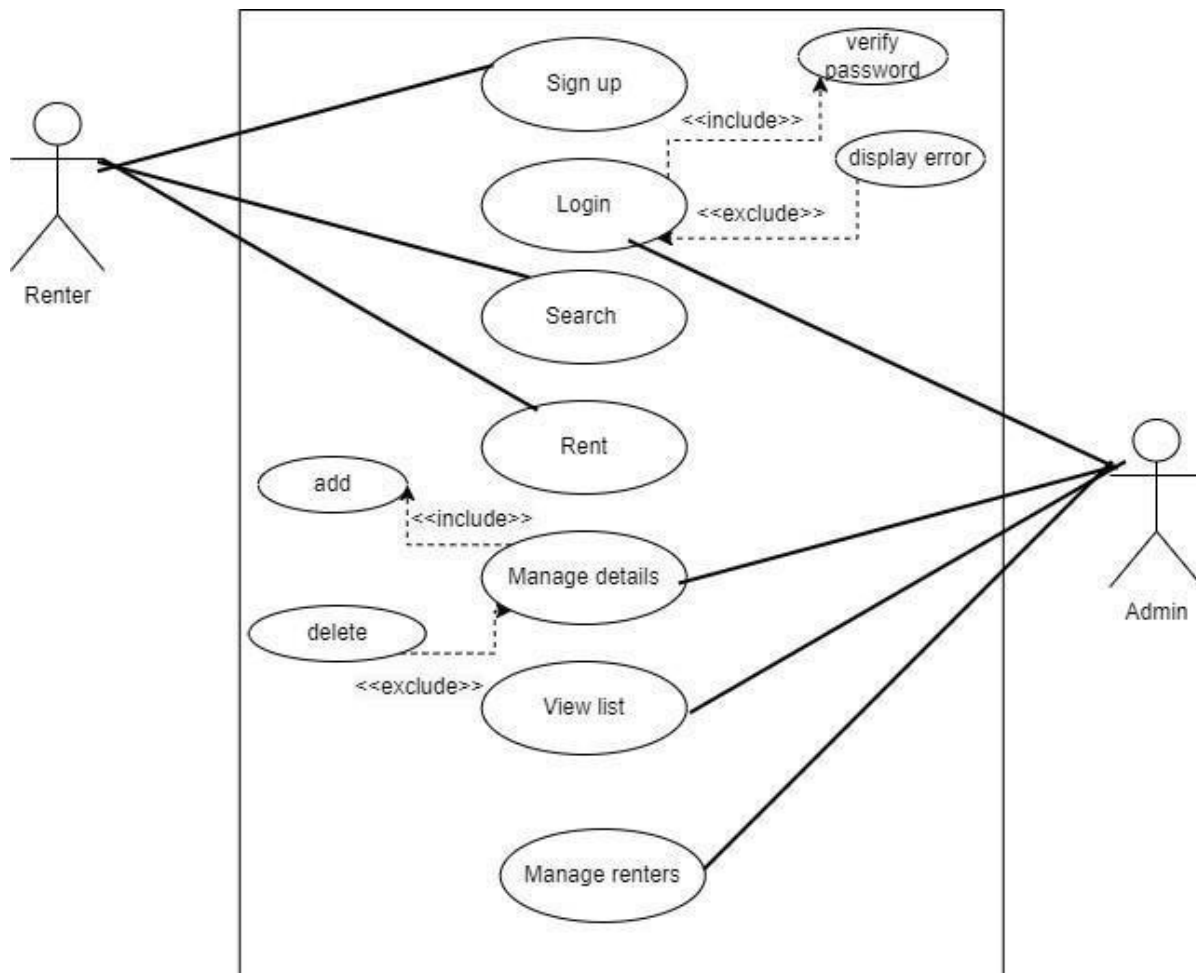


Figure 3.1: Iterative Enhancement Model

3.2 Use Case Diagram:



Use Case Description:

3.2.1 Sign up:

Description	The user finds the login and registration instructions after entering the system in any internet browser. Therefore, the user needs first register.
-------------	---

3.2.2 Login:

Description	After sign up, the admin and renters must log in each time he accesses a program before using its key features.
-------------	---

3.2.3 Search:

Description	After login to system, renters can search their home in preferable location and see the house list available in that area.
-------------	--

3.2.4 Rent:

Description	After searching the home, renters can rent their desirable home at their preferable area.
-------------	---

3.2.4 Manage details:

Description	Admin can add, update and delete home info. For this, he must login to system.
-------------	--

3.2.5 View list:

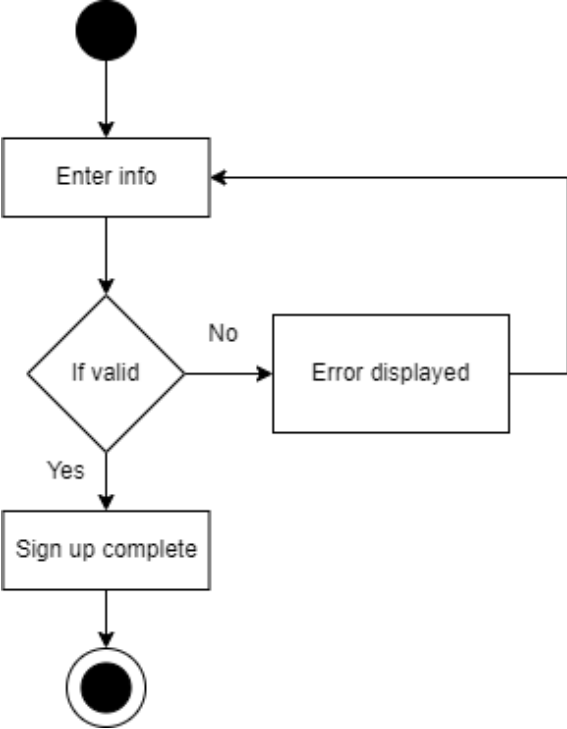
Description	Admin can also see home the list.
-------------	-----------------------------------

3.2.6 Manage renters:

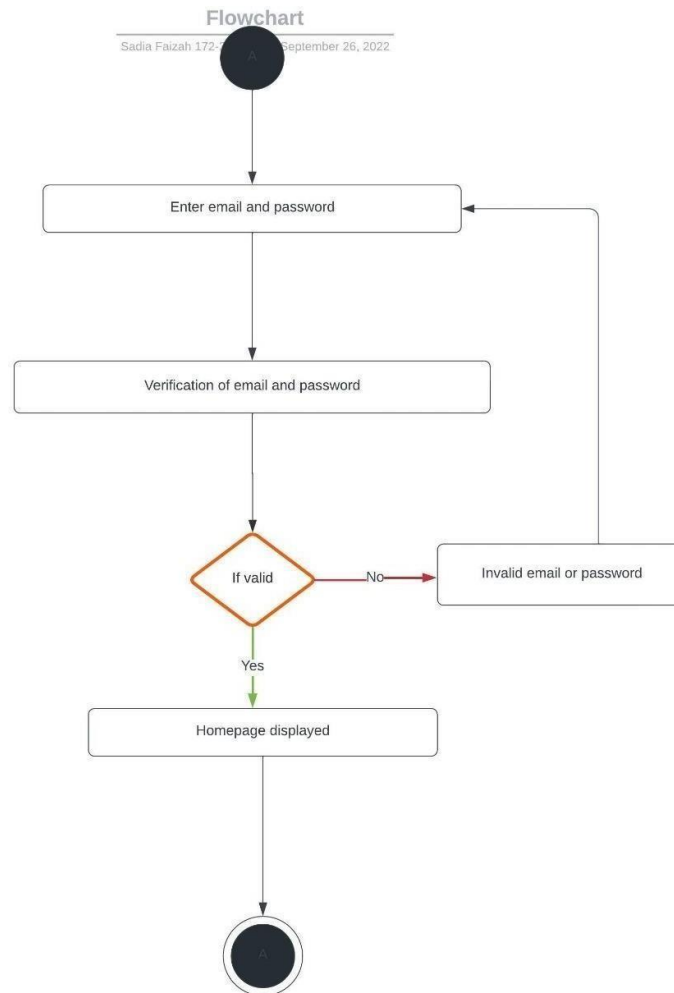
Description	After renters rent their home in their preferable area, their rent records are kept in system. If admin wishes, he can delete renters record.
-------------	---

3.3 Activity Diagram:

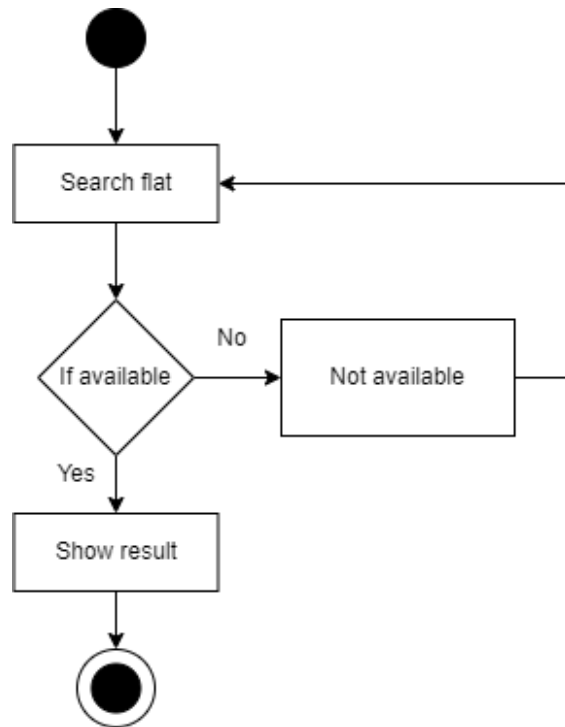
Sign up:



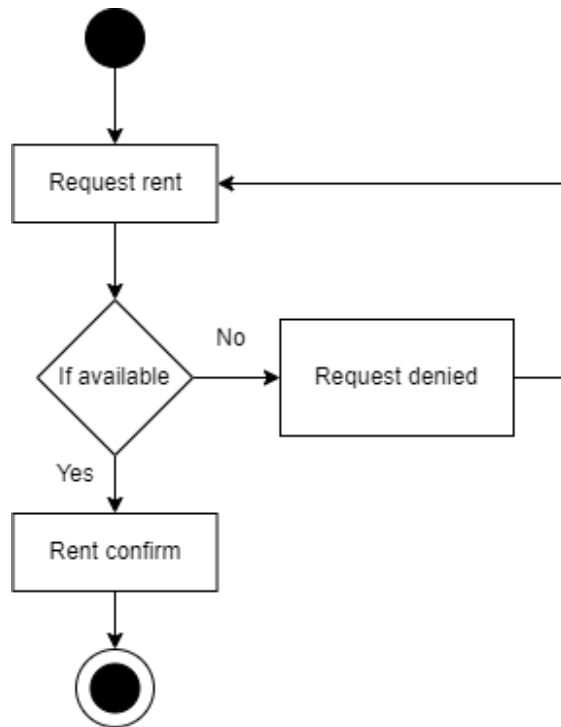
Login:



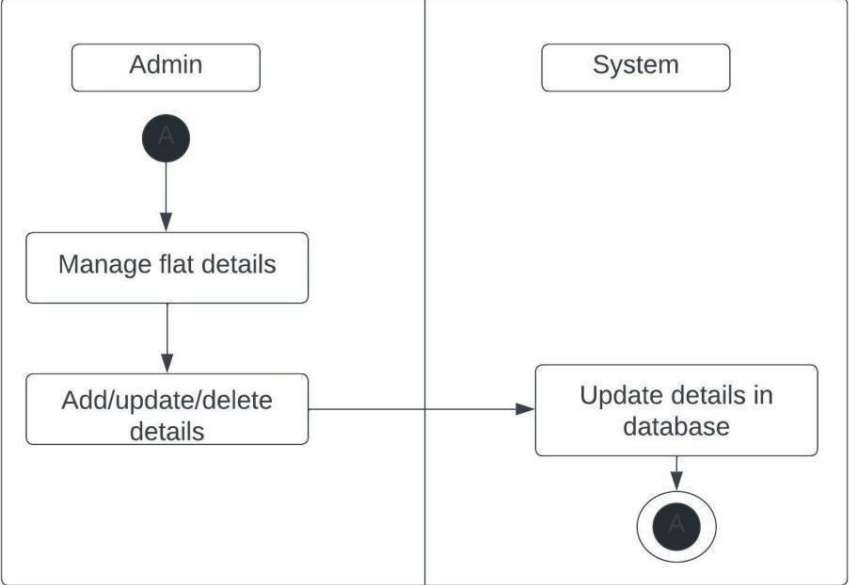
Search:



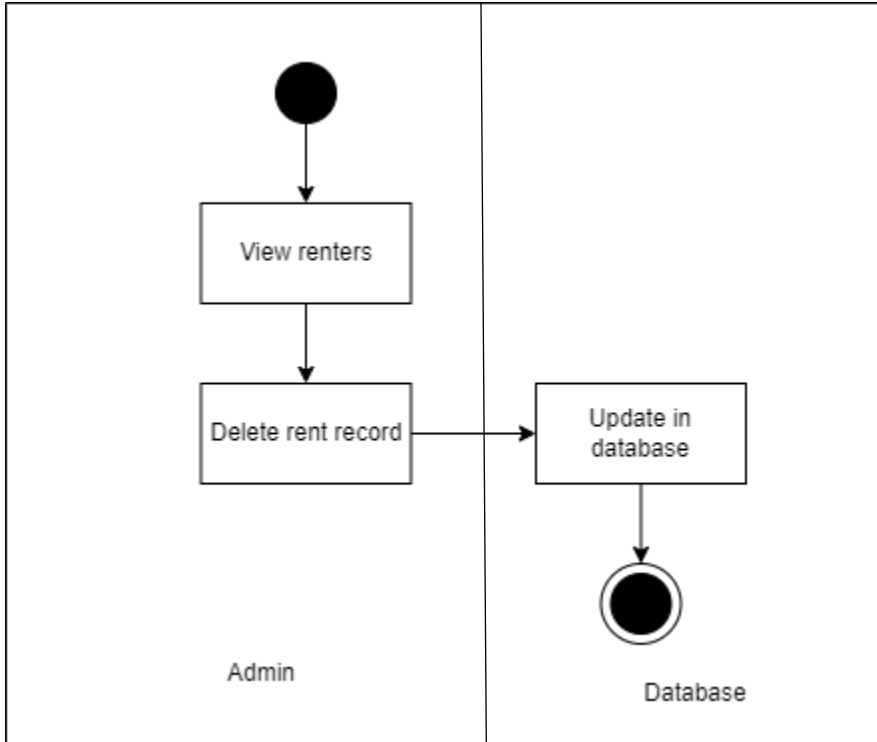
Rent:



Manage Details:

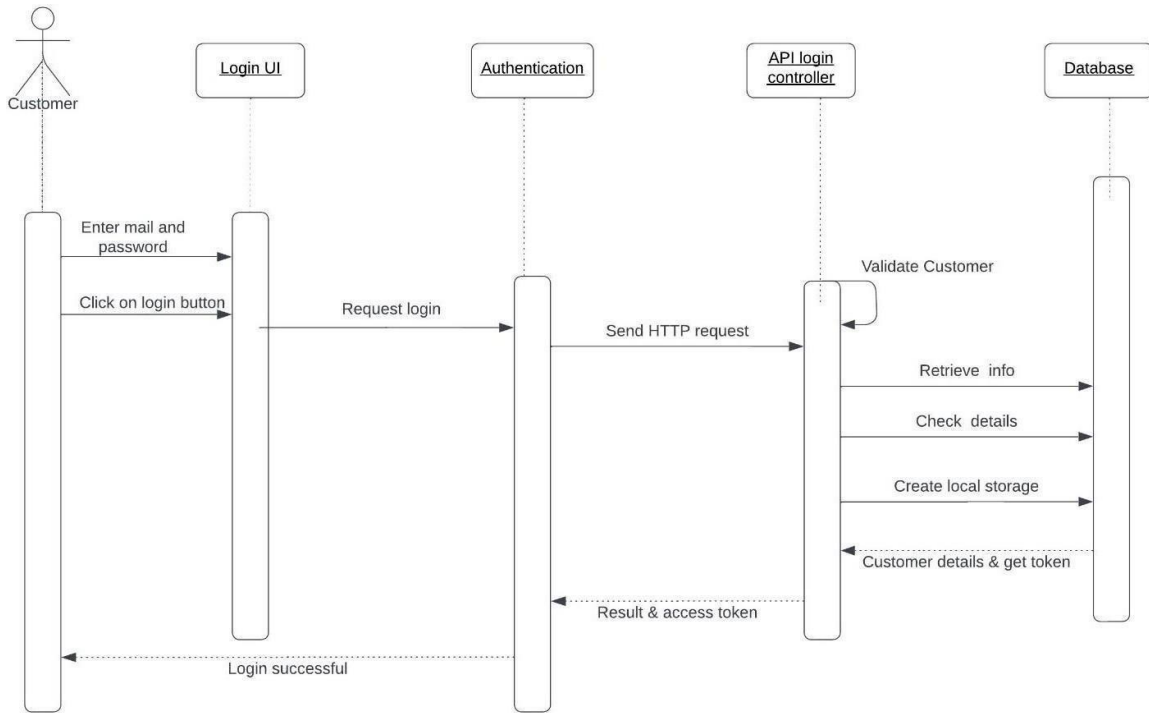


See record:

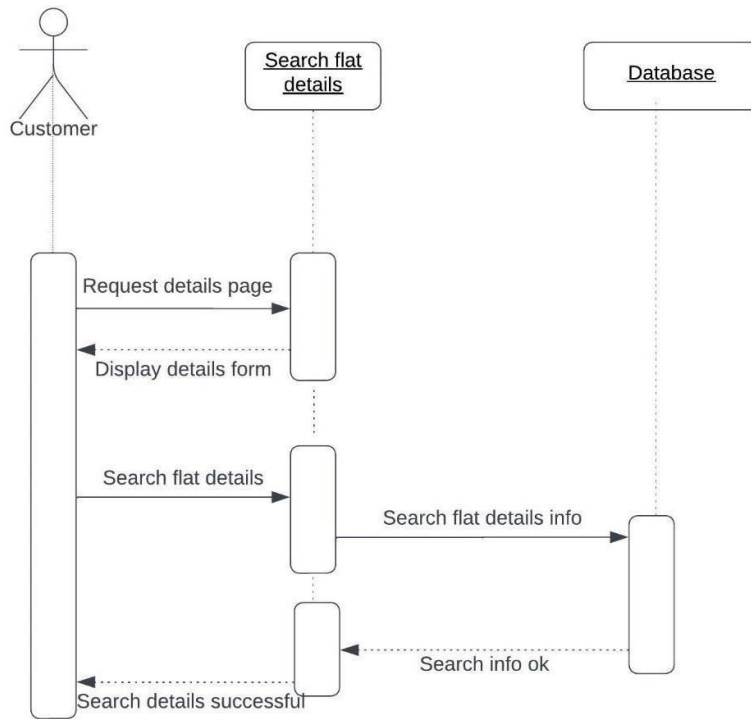


3.4 Sequence Diagram:

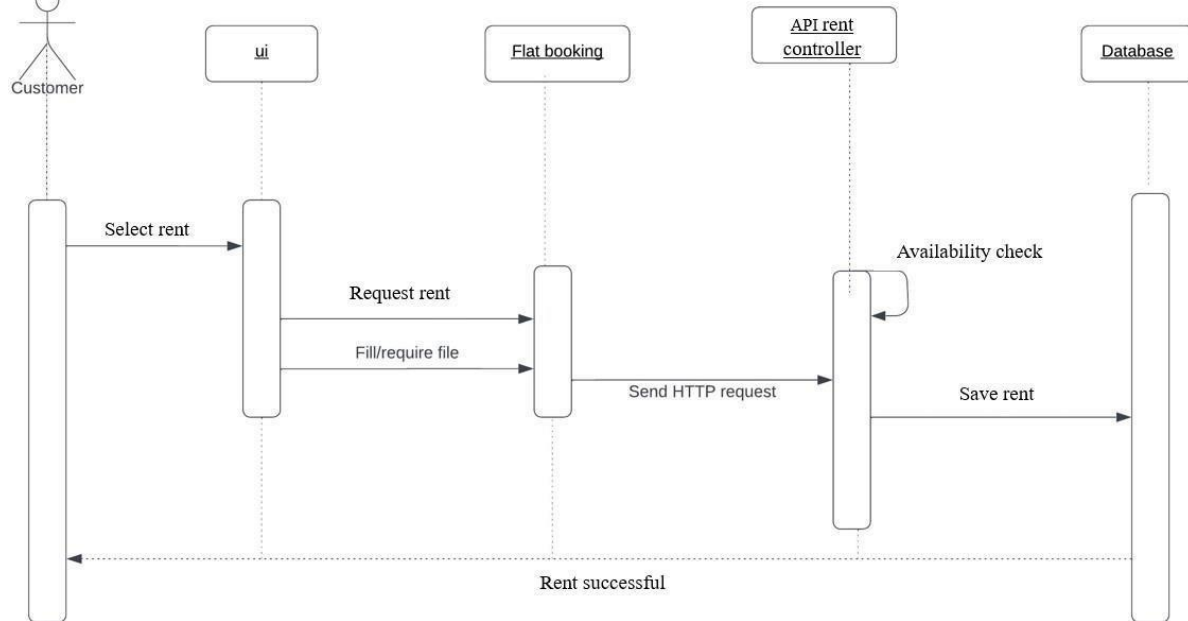
Login:



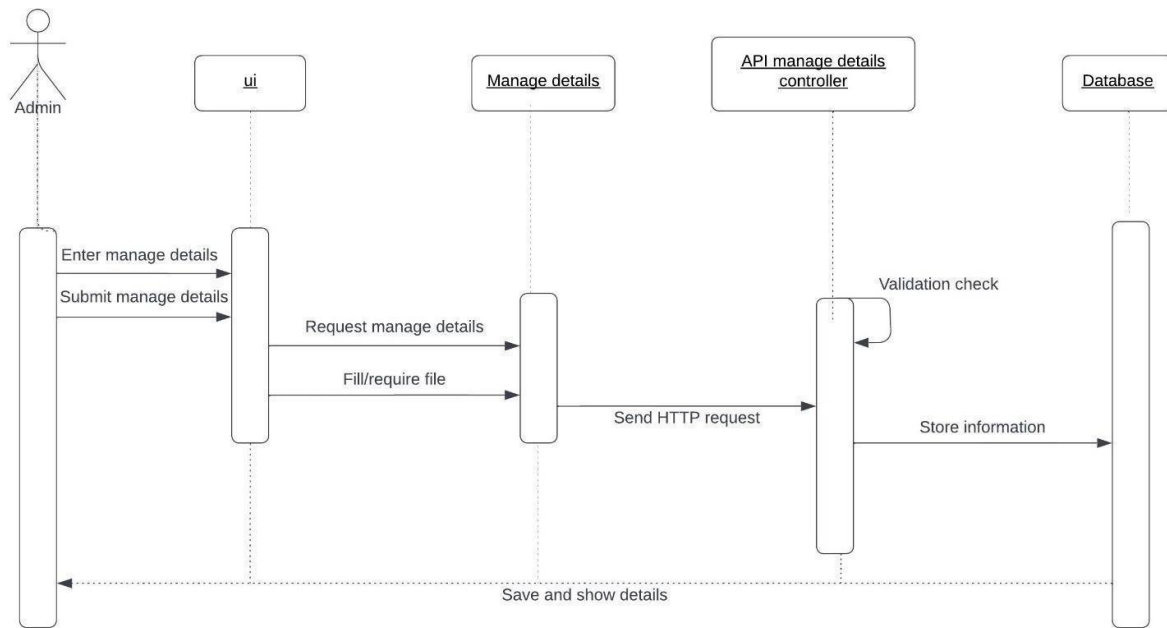
Search:



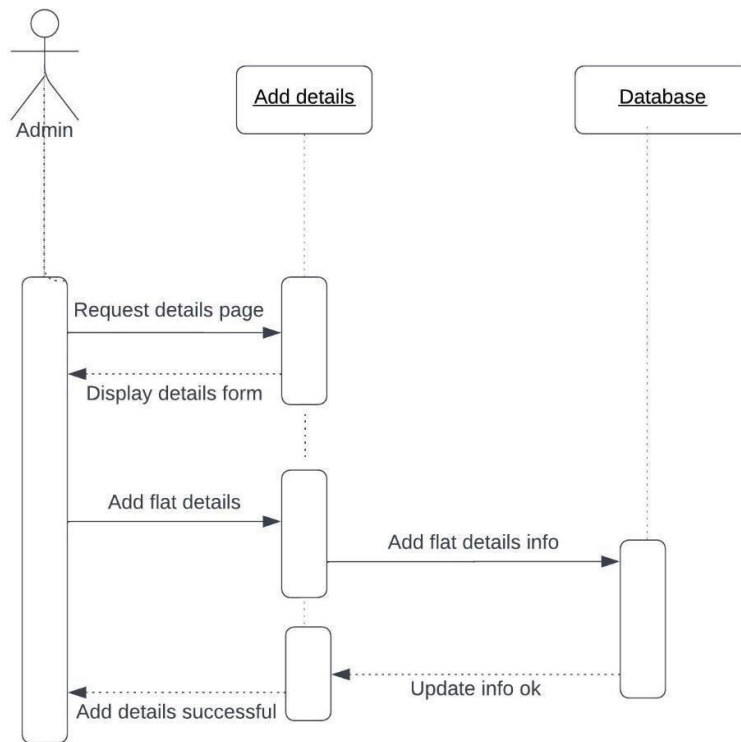
Rent:



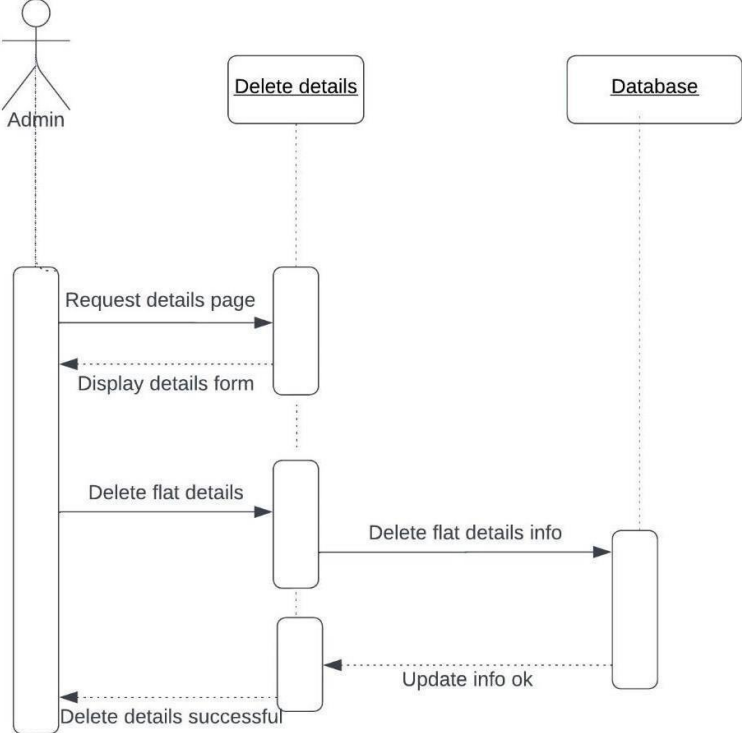
Manage Details:



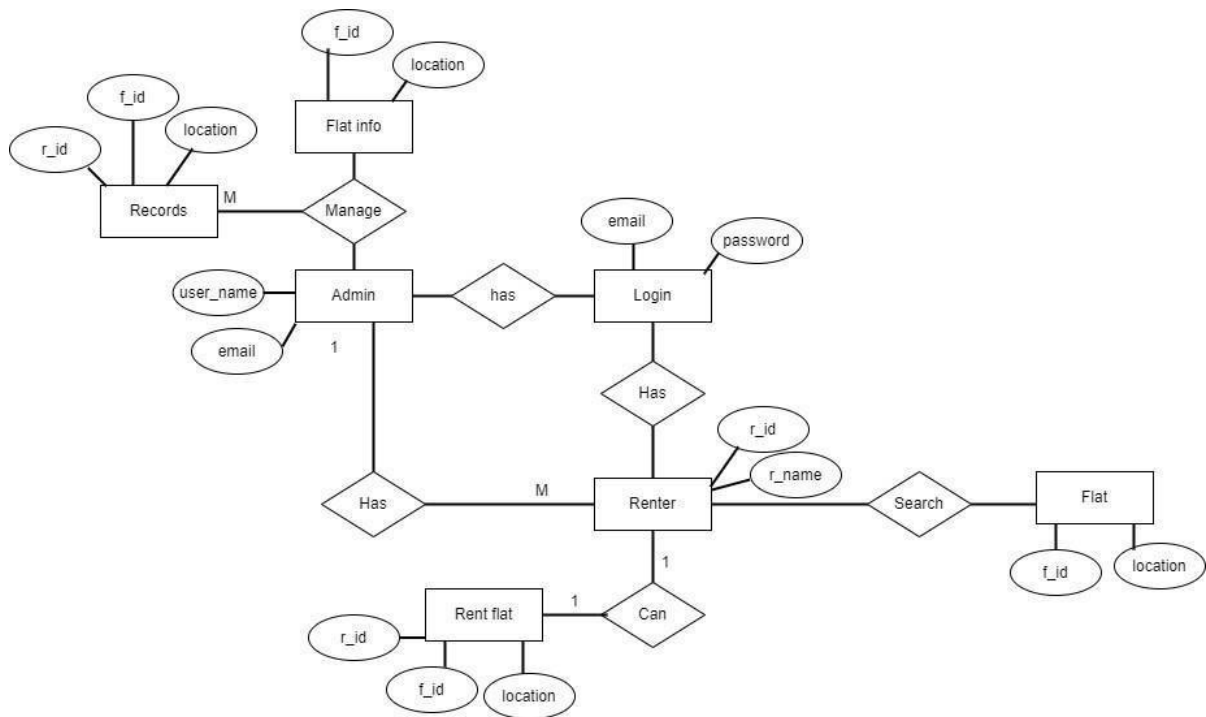
Add:



Delete:



3.5 ER diagram:



CHAPTER 4: SYSTEM TESTING

4.1 Feature Testing:

Testing new features is thought of as adding to and changing the existing feature system. The most recent system will bring new system features here. the primary. These are intended to increase the web application's effectiveness, reliability, efficiency, and security.

4.1.1 Features to be tested:

Features	Description
Signup	User data must be properly stored.
Login	The admin must verify the user info.
Logout	After logging out, the session must be terminated.
Search	System should show actual output.
Rent	Only available home should show for rent.
Manage renters	Admin check the renters properly.

Figure 4.1: Features testing table

4.2 Test Strategies

4.2.1 Test approach:

To make sure that my system is of high quality, I've done two different kinds of testing. I mainly concentrated on structural and functional testing.

- **Black Box Testing:** Also known as functional testing, focuses only on the outputs produced in response to chosen inputs and execution circumstances and ignores the internal workings of a system or component.
- **White Box Testing:** Testing that considers the internal workings of a system or component is referred to as white-box testing (also known as structural testing and glass box testing).

4.2.2 Testing Schedule:

Test phase	Duration
Testing plan create	1 week
Unit testing	In the time of development
Component test	In the time of development
Testing user interfaces	2 weeks
Performance testing	1 week
Accessibility testing	1 week

CHAPTER 5: USER MANUAL

5.1 Sign up:

House Rental Search [Sign In](#)

Sign Up

Please fill this form to create an account.

Name

Email

Password

Confirm Password

[Submit](#) [Reset](#)

Already have an account? [Login here.](#)

House Rental Search [Sign In](#)

Sign Up

Please fill this form to create an account.

Name

Email

Password

Confirm Password

[Submit](#) [Reset](#)


Already have an account? [Login here.](#)

5.2 Renter dashboard:

House Rental Search [Sign Out](#)

Welcome, **Sumaiya Oniya**


Choose a house to rent.



**House-3,Road-15,
Mirpur Dhaka**

This is a very good house.


bdt 20000/month [Rent](#)



**House-5,Road-2,Sector-
5,Uttara Dhaka**

This is a good house with large belcony.

bdt 10000/month [Rent](#)



**House-15,Road-
19,Block-C, Banani
Dhaka**


A beautiful house with all facilities.

bdt 30000/month [Rent](#)

5.3 Search:

House Rental Search [Sign Out](#)


Search Results:



**House-15,Road-
19,Block-C, Banani
Dhaka**

A beautiful house with all facilities.

bdt 30000/month [Rent](#)



**Home in Banani. House-
20,Road-4,Block-B**

A very well decorated home with furniture.

bdt 50000/month [Rent](#)

5.4 Invalid search:

House Rental Search Sign Out


Search Results:

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5.5 Rent request:

House Rental Search Sign Out


Search Results:



House-15,Road-19,Block-C, Banani Dhaka

A beautiful house with all facilities.

bdt 30000/month [Rent](#)



Home in Banani. House-20,Road-4,Block-B

A very well decorated home with furniture.

bdt 50000/month [Rent](#)

5.6 Admin login:

House Rental

Login

Please fill in your credentials to login.

Email

Password

Don't have an account? [Sign up now.](#)
Forgot Password? [Reset Password.](#)


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5.7 Admin dashboard:


House Rental Houses Renters

Welcome, admin


Choose a house to rent.



House-3, Road-15, Mirpur Dhaka
This is a very good house.
bdt 20000/month



House-5, Road-2, Sector-5, Uttara Dhaka
This is a good house with large balcony.
bdt 10000/month



House-15, Road-19, Block-C, Banani Dhaka
A beautiful house with all facilities.
bdt 30000/month

5.8 Rent records:

House Rental Houses Renters Search Sign Out

House Rental Management System - Rent Records

ID	Rented By	House ID	Location	Price	Actions
12	Nila Khan	6	House-2,Road-5,Sector-10,Uttara Dhaka	12000	Delete
14	Nila Khan	2	House-3,Road-15, Mirpur Dhaka	20000	Delete
13	Nila Khan	5	Home in Banani. House-20,Road-4,Block-B	50000	Delete
11	Nila Khan	4	House-15,Road-19,Block-C, Banani Dhaka	30000	Delete
15	Minu Islam	5	Home in Banani. House-20,Road-4,Block-B	50000	Delete
16	Minu Islam	6	House-2,Road-5,Sector-10,Uttara Dhaka	12000	Delete

5.9 House list:

House Rental Houses Renters Search Sign Out

House Rental Management System - Houses [Add New](#)

SN	Location	Price	Description	Owner	Date Added	Actions
2	House-3,Road-15, Mirpur Dhaka	20000	This is a very good house.	Rahim Khan	2022-10-17	Edit Delete
3	House-5,Road-2,Sector-5,Uttara Dhaka	10000	This is a good house with large balcony.	Nilima Rahman	2022-11-03	Edit Delete
4	House-15,Road-19,Block-C, Banani Dhaka	30000	A beautiful house with all facilities.	Meheli Tarannum	2022-11-05	Edit Delete
7	House-20,Road-4,Block-B, Dhanmondi ,Dhaka	40000	Well furnished house with all other facilities.	Parvez Khan	2022-11-27	Edit Delete
5	Home in Banani. House-20,Road-4,Block-B	50000	A very well decorated home with furniture.	Rishika Khan	2022-11-25	Edit Delete
6	House-2,Road-5,Sector-10,Uttara Dhaka	12000	Good house with electricity, gas & water.	Anila Shirin	2022-11-25	Edit Delete

5.10 Add :

🏠 House Rental Houses Renters

Add New House

Location

Price

Description

Owner

Image
 home16.jpg

5.11 Update:

🏠 House Rental Houses Renters

Update Subject

Location

Price

Description

Owner

Image
 home5.jpg

CHAPTER 6: CONCLUSION

6.1 Project Summary:

6.1.1 Obstacles and Outcomes:

The release of new technologies occurs every day, so PHP is no exception. As a result, I think that some technological obstacles can be removed and that new technology can be used to complete the project. I realized there were several mistakes made in the development of this system.

6.1.2 Scope for Further Developments:

All we want is for a house rental system to incorporate our technologies. If consumers find it handy, we'll work to expand the system's diversity in the future. We've also developed a plan to deal with the problems we've run across in the future. We have a strategy in place. Most significantly, we want to integrate an API-based payment gateway into our software. Regarding the payment gateway.

Within a tight timeframe, I finished this project from planning to development, and the system is now available for usage. Day by day, this system should be updated on a regular basis.

6.2 Tool and Platform:

6.2.1 Software Specification:

Operating system	Windows 10
Front End	HTML, CSS, JS, Bootstrap
Back End	PHP
Text Editor	Visual studio code
Database	MySQL
Web browser	Google chrome
Web server	Apache
Drawing tool	Draw.i.o

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