

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANASANGAMA, BELAGAVI – 590018**



**Mini Project Report
On**

REAL ESTATE MANAGEMENT SYSTEM

Submitted in partial fulfillment for the award of the degree of

**Bachelor of Engineering
In
Computer Science and Engineering**

Submitted by

**SMITHA S MAGANTI
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Vidyayāmruthamashnute

B.N.M Institute of Technology

Approved by AICTE, Affiliated to VTU, Accredited as grade A Institution by NAAC.
All UG branches – CSE, ECE, EEE, ISE & Mech.E accredited by NBA for academic years 2018-19 to 2020-21 & valid upto 30.06.2021
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Department of Computer Science and Engineering

2020-21

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CERTIFICATE

Certified that the Mini Project entitled Real Estate Management System carried out by **Ms. SMITHA S MAGANTI USN 1BG18CS110** a bonafide student of V Semester B.E., **B.N.M Institute of Technology** in partial fulfillment for the Bachelor of Engineering in COMPUTER SCIENCE AND ENGINEERING of the **Visvesvaraya Technological University**, Belagavi during the year 2020-21. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements in respect of Database Management System with Mini Project Laboratory prescribed for the said Degree.

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ABSTRACT

In this emerging world of technology, every system is computerized and is available online. The traditional way of finding real estate is also now computerized. Real Estate Website is a web portal that enables a user to find real estate. The main objective of this application is to allow users to search for real estate based on their requirements. It aims to save your time in meeting and paying for brokers just to know the basic information of the real estate, which now the user can view online easily from anywhere. The online real estate site connects a large number of people. A registered user can either sell a property by giving the necessary details or view other's property and purchase them if interested. The users can interact with the sellers by using the contact details provided along with the property details. The portal believes in providing the most secure and convenient experience to all its members. This system will provide facility to the user to publish and advertise their properties, and view and purchase the properties they are interested in.

ACKNOWLEDGEMENT

The completion of this project brings with a sense of satisfaction, but it is never complete without thanking the persons responsible for its successful completion.

I take this opportunity to express our profound gratitude to **Shri. Narayan Rao R Maanay**, Secretary, BNMIT, Bengaluru for his constant support and encouragement.

I would like to express my special thanks to **Prof. T. J. Rama Murthy**, Director, BNMIT, Bengaluru for his constant guidance towards our goals and professions.

I extend my deep sense of sincere gratitude to **Dr. S. Y. Kulkarni**, Additional Director, BNMIT, Bengaluru, for providing us facilities required for the project.

I extend my deep sense of sincere gratitude to **Dr. Krishnamurthy G.N**, Principal, BNMIT, Bengaluru, for providing us facilities required for the project.

I would also like to thank **Prof Eishwar Maanay**, Dean Administration, BNMIT, Bengaluru, for providing us useful suggestions required for the project.

I express my in-depth, heartfelt, sincere gratitude to **Dr. Sahana D. Gowda**, Professor and H.O.D, Department of Computer Science and Engineering, BNMIT, Bengaluru, for her valuable suggestions and support.

I extend my heartfelt, sincere gratitude to **Dr. Sejal Santosh Nimborkar**, Associate Professor, Department of Computer Science and Engineering, BNMIT, Bengaluru, for completion of the project.

Finally, I would like to thank all the faculty members of the Department of Computer Science and Engineering, BNMIT, Bengaluru, for their support.

I would like to thank our family and friends for their unfailing moral support and encouragement.

SMITHA S MAGANTI

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Chapter 1

INTRODUCTION

1.1 Overview of Database Management System

A Database is a collection of related data organized in a way that data can be easily accessed, managed and updated. Any piece of information can be data, for example the name of your school. Database is actually a place where related pieces of information is stored and various operations can be performed on it. A DBMS is a software that allows creation, definition and manipulation of databases. DBMS is actually a tool used to perform any kind of operation on data in a database. DBMS also provides protection and security to databases. It maintains data consistency in case of multiple users. Here are some examples of popular DBMS, Sql, Oracle, Sybase, Microsoft Access and IBM DB2

- The database system can be divided into four components:
- The database system can be divided into System developer and End users.
- Database application: Database application may be Personal, Departmental, Enterprise and Internal
- DBMS: Software that allows users to define, create and manage database access, Ex: Sql, Oracle etc.
- Database: Collection of logical data.

Functions of database management system:

- Provides Recovery services
- Provides utility
- Provides data Independence
- Provides a clear and logical view of the process that manipulates data.

Advantages of DBMS:

- Segregation of application program
- Minimal data duplicity
- Reduced development time and maintenance need
- Easy retrieval of data

1.2 Problem statement

Are you finding it difficult to deal with the brokers to find the real estate of your choice? In these times of cutting edge technology, don't you want to find the real estates by the mere click of a button?

The main aim of Real Estate Web Application is to enable the users to advertise and sell their properties to potential buyers, and to view, shortlist and purchase the properties they are interested in from potential sellers. The objective here is to develop an interface that provides its users with various services and also supports a database to store the related information.

Real Estate website provides a platform to search for properties that are available based on the requirements of the user. The website contains different sectors such as registration, adding, editing and deleting a real estate, shortlisting real estates, searching for real estates based on the user's criteria, viewing the confirmed purchases, and billing. Users can directly search for properties according to their criteria anywhere and everywhere and handle their busy lifestyle with ease.

1.3 Objective

The objective of this project is to:

- Provide users with a safe and secure system to avail the benefits of the application.
- Provide a platform for sellers to directly sell their properties without involving brokers and to make it easy for the potential buyers to view these properties and purchase them.
- Make a user-friendly system with ease of navigation between pages and faster

implementations.

- Provide a search facility to help users who have certain criteria in mind to quickly find what they are looking for.
- Provide accurate search results to buyers.

1.4 Dataset Description

The Real Estate website is an online platform that helps people find land, house, and office space of their dream. This website provides features for both buyers and sellers to buy and sell the properties respectively.

The database schema is designed to meet the requirements of the real estate website.

The portal consists of user, real_estate, lease, residential, and purchase modules.

The User module allows the users to register themselves by entering their name, username, password, email address and telephone number. The user can login using the username and password. The username is unique and cannot be repeated for multiple users.

The real_estate section allows sellers to:

- Add property by providing the address, city, pincode, cost and area of the property
- Select a category of the real estate which is land, commercial or residential
- Select a contract type of the property whether the property is for sale or lease
- Specify the availability status of the property.
- Edit or delete the properties they have already added to the portal.

The lease section is applicable to the properties whose contract type is lease. It provides the duration of the lease of the property.

The residential section is applicable to the real estates whose category is residential, and not land or commercial. It provides information about the number of rooms in the property, if the property is furnished, semi-furnished, or fully-furnished and if the property is an independent house or a flat.

The purchase module tracks the purchases made and the users who make the purchases, handles the payment and generates a unique billing ID for each purchase.

The tables and their attributes are:

- user (name, username, password, email, phone)
- real_estate(estate_id, address, pincode, city, price, sqfoot, category, contract, status, sellername)
- lease(estate_id, duration)
- residential(estate_id, type_of_house, rooms, furnished)
- purchase(billing_id, estate_id, buyername)

Chapter 2

SYSTEM REQUIREMENTS

2.1 Software and Hardware

Software Configuration:

- Operating system: Windows 10 ,64 bit
- Front end: Html, CSS, Javascript
- Server side language: Php
- Back end: MySql
- Web server: Apache
- Browser: Chrome
- Application software: WAMP

Hardware Configuration:

- Processor: Intel Core i5
- RAM: 8 GB
- Hard disk: 1TB

Chapter 3

SYSTEM DESIGN

3.1 E R Diagram

An entity-relationship diagram (ERD) is a data modeling technique that graphically illustrates an information system's entities and the relationships between those entities. An ERD contains different symbols and connectors that visualize two important information: The major entities within the system scope and the inter relationships among these entities.

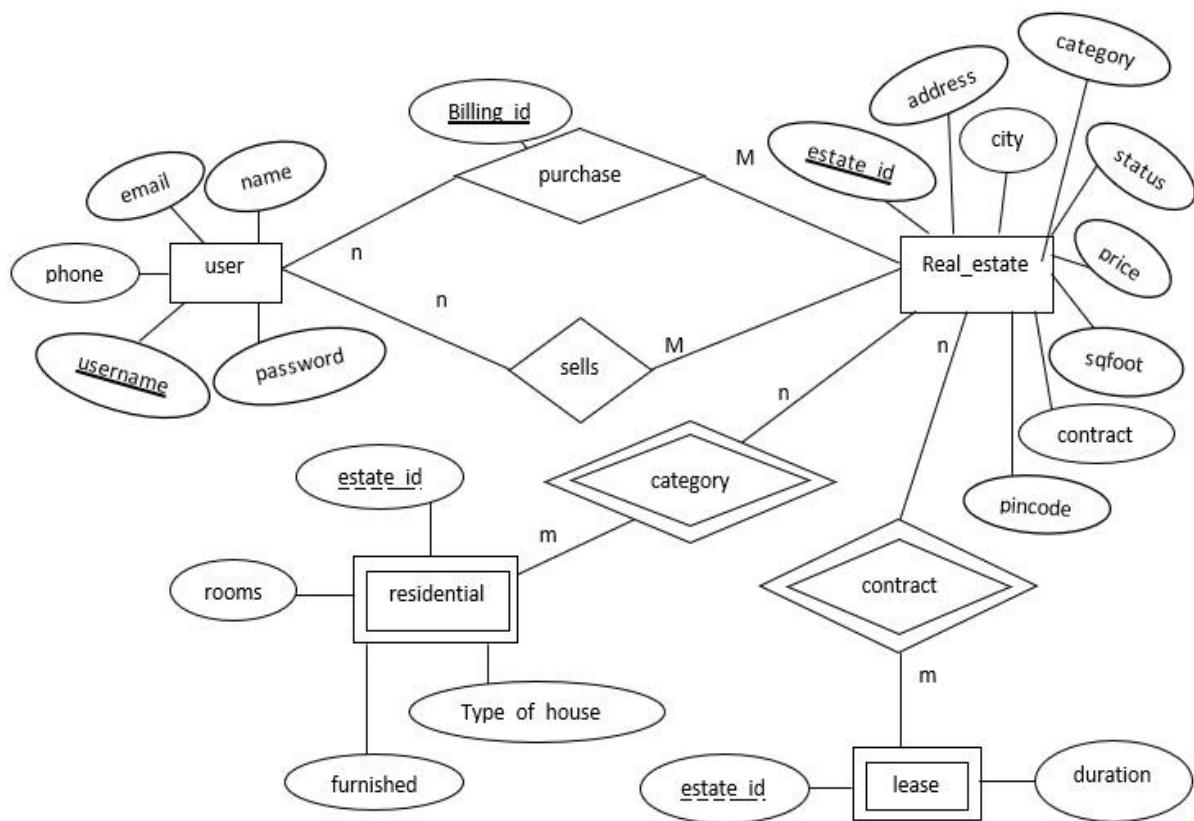


Figure 4.5 ER diagram of real estate management system

The above diagram illustrates the ERD for a real estate management system. The regular entities are `user`, `real_estate`, and `purchase` with primary keys `username`,

estate_id and candidate key consisting of billing_id and estate_id respectively. The weak entities are lease and residential with primary key estate_id. The entity user is related to real_estate by sells and purchases; user sells or purchases a real estate. The entity lease is related to real_estate by contract; real estate's contract is lease. The entity residential is related to real_estate by category; real estate's category is residential.

3.2 Schema Diagram

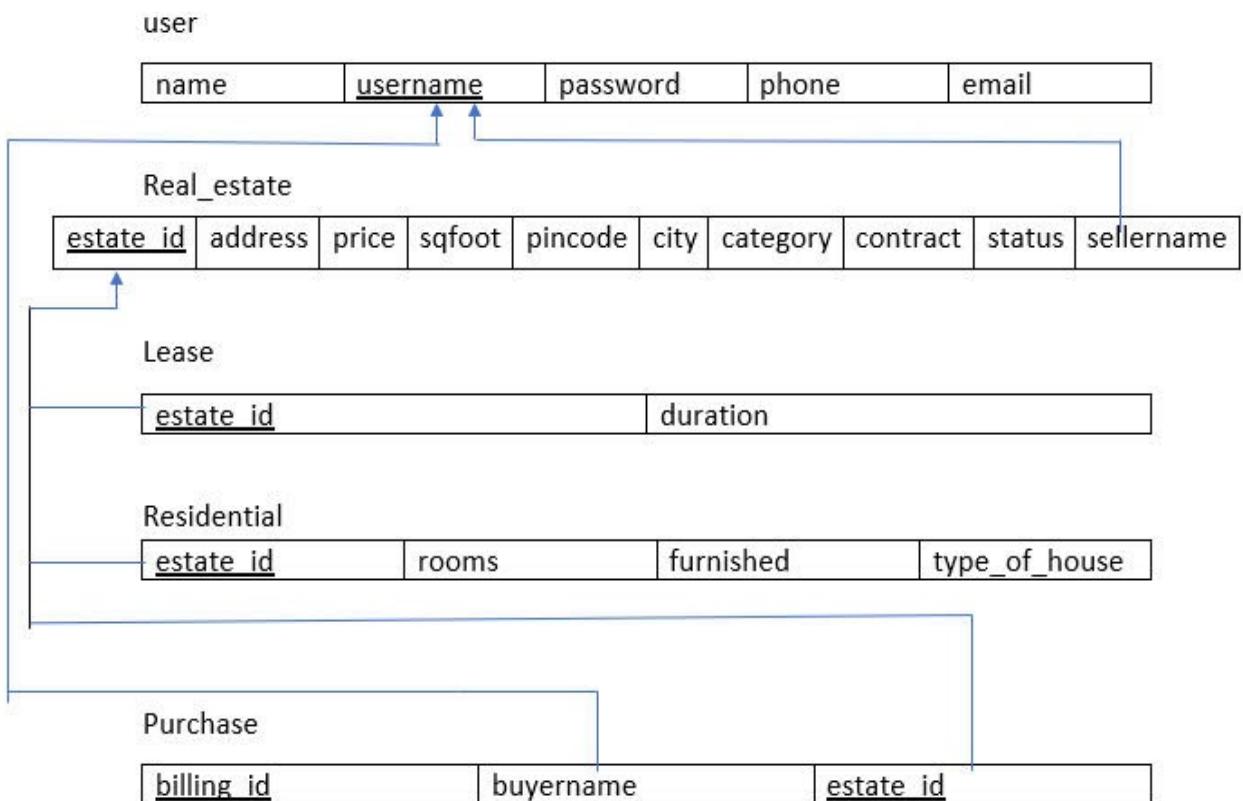


Figure 4.6 Schema diagram of real estate management system

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and the relations among them are associated. It formulates all the constraints that are to be applied on data. A database schema defines its entities and relationship among them. It contains a descriptive detail of the database, which can be depicted by means of schema

diagrams. The figure 4.6 shows the schema diagram for the real estate management system. It shows the various relations and references between entities.

3.3 Overview of GUI

GUI is a program interface that takes advantage of the computer's graphics capabilities to make the program easier to use. Well-designed graphical user interfaces can free the user from learning complex command languages. On the other hand, many users find that they work more effectively with a command-driven interface, especially if they already know the command language.

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With JavaScript it forms a triad of cornerstone technologies for the World Wide Web. Web browsers receive HTML documents from a web server or from local storage and render them into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

3.4 Normalization

Normalization is a process of analyzing the given relation schema based on their functional dependencies and primary key to achieve desirable properties of minimizing redundancy and minimizing insert, delete, update anomaly. The normalization process takes a relation schema through a series of tests to certify whether it satisfies a certain normal form. The normal form of a relation refers to the highest normal form condition

that it meets, and hence the degree to which it has been normalized.

Normalization rules are divided into following normal form.

- First Normal Form
- Second Normal Form
- Third Normal Form
- Boyce-codd Normal Form

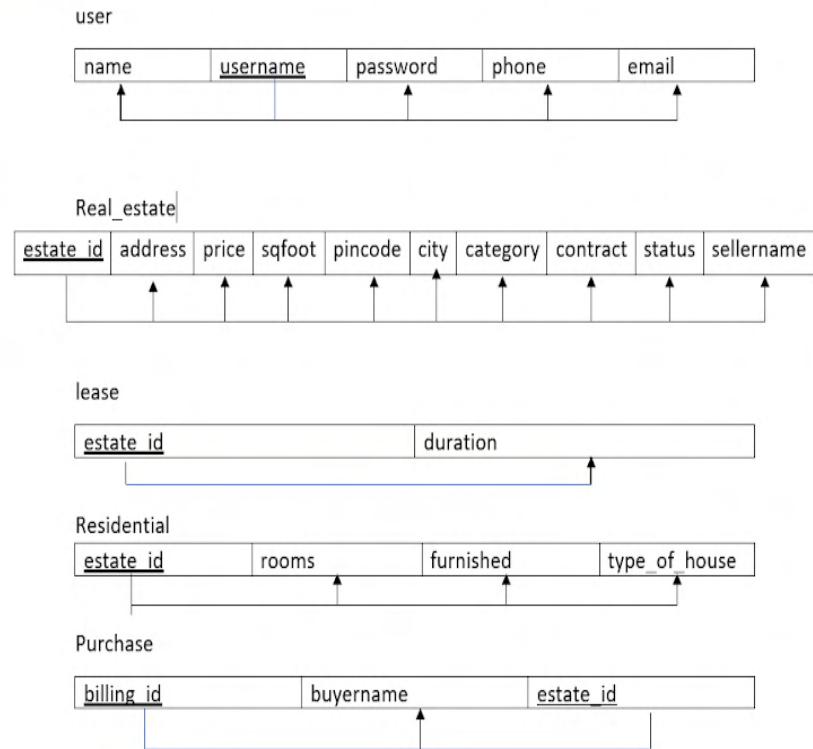
3.4.1 First Normal Form

First normal form states that the domain of an attribute must include only atomic (simple, individual) values and that the value of any attribute in a tuple must be a single value from the domain of attribute.

Consider the relations of the real estate management system. The relations consist of primary keys and foreign keys. All the relations are in 1NF as they have neither any multivalued attributes nor composite attributes.

3.4.2 Second Normal Form

Second normal form is based on the concept of full functional dependency. A functional dependency $X \rightarrow Y$ is a full functional dependency if removal of any attribute A from X means that the dependency does not hold anymore. A relation schema R is in 2NF if every non-prime attribute A in R is fully functionally dependent on the primary key of R.



Consider the relations shown above here all the relations are in 2NF as all the non-prime attributes are fully functionally dependent on the set of prime attributes. Hence the relations are in 2NF.

3.4.3 Third Normal Form

Third normal form is based on the concept of transitive dependency. A relation schema R is in 3NF if it satisfies 2NF and no non-prime attribute of R is transitively dependent on the primary key. A relation schema R is in 3NF if every non-prime attribute of R meets both of the following conditions:

- It is fully functionally dependent on every key of R.
- It is non transitively dependent on every key of R.

The relations used in this database are fully functionally dependent on its key attribute and do not hold any transitive dependencies. Hence all the relations are in 3NF.

Chapter 4

IMPLEMENTATION

4.1 Table Creation

Create table user

```
(  
    name varchar(30) not null,  
    username varchar(10) not null,  
    password varchar(25) not null,  
    email varchar(50) not null,  
    phone bigint10) not null,  
    primary key(username)  
);
```

Create table real_estate

```
(  
    estate_id number(5) not null auto_increment,  
    address varchar(50),  
    pincode int(6),  
    city varchar(15),  
    price int(11),  
    sqfoot int(5),  
    category varchar(11),  
    contract varchar(5),
```

```
status varchar(8),  
sellername varchar(11),  
primary key(estate_id),  
foreign key(sellername) references user(username) on delete  
cascade  
);
```

```
Create table lease (  
estate_id int(5) not null,  
duration int(2) not null,  
primary key(estate_id) references estate(estate_id) on delete cascade  
);
```

```
Create table residential  
(  
estate_id int(5) not null,  
rooms int(2) not null,  
furnished varchar(20) not null,  
type_of_house varchar(20) not null,  
primary key(estate_id) references estate(estate_id) on delete cascade  
);
```

```
Create table purchase  
(  
billing_id varchar(20) not null,
```

```
estate_id int(5) not null,  
foreign key(estate_id) references estate(estate_id) on  
delete cascade,  
foregin key(buyername) references user(username) on  
delete cascade,  
buyername varchar(10) not null,  
primary key(estate_id, billing_id, buyername)  
);
```

4.2 Description of Table

1. desc user;

The screenshot shows the 'DESC USER' command results in MySQL Workbench. The table has 5 columns: Field, Type, Null, Key, and Extra. The 'username' column is highlighted.

Field	Type	Null	Key	Default	Extra
name	text	NO		NULL	
username	varchar(10)	NO	PRI	NULL	
password	varchar(20)	NO		NULL	
email	varchar(50)	NO		NULL	
phone	bigint(10)	NO		NULL	

Figure 4.7 Description of user table

2. desc real_estate;

DESC estate						
+ Options						
Field	Type	Null	Key	Default	Extra	
estate_id	int(5)	NO	PRI	NULL	auto_increment	
address	text	NO		NULL		
sqfoot	int(5)	NO		NULL		
price	int(11)	NO		NULL		
pincode	int(6)	NO		NULL		
category	varchar(11)	NO		NULL		
username	varchar(11)	NO	MUL	NULL		
status	varchar(8)	NO		not_sold		
contract	varchar(5)	NO		NULL		
city	varchar(20)	NO		NULL		

Figure 4.8 Description of real_estate table

3. desc lease;

desc lease						
+ Options						
Field	Type	Null	Key	Default	Extra	
duration	int(11)	NO		0		
estate_id	int(11)	NO	PRI	NULL		

Figure 4.9 Description of lease table

4. desc residential;

desc residential						
+ Options						
Field	Type	Null	Key	Default	Extra	
Type	varchar(20)	NO		<i>NULL</i>		
rooms	int(10)	NO		<i>NULL</i>		
furnished	varchar(20)	NO		<i>NULL</i>		
estate_id	int(10)	NO	PRI	<i>NULL</i>		

Figure 4.10 Description of residential table

5. desc purchase;

desc purchase						
+ Options						
Field	Type	Null	Key	Default	Extra	
billing_id	varchar(20)	NO	PRI	<i>NULL</i>		
estate_id	int(10)	NO	MUL	<i>NULL</i>		
buyername	varchar(20)	NO	MUL	<i>NULL</i>		

Figure 4.11 Description of purchase table

4.3 Populated Tables

1. Select * from user;

name	username	password	email	phone
Ann Vlk	ann	hello	ann@gmail.com	9256473892
Anne Frank	anne	hello	anne@gmail.com	9987864567
Anu Kumar	anu	hello	anu@gmail.com	6677889988
Dan	dan	hello	dan@gmail.com	1234567890
Dean Winchester	dean	hello	dean@gmail.com	9876787654
John Doe	Doe	tree	john@example.com	9988776655
smitha	ger	asd	smitha@gmail.com	9987654321
Ginny	gin	hello	ginny@gmail.com	9876423331
Greg House	greg	tree	greg@gmail.com	9988112233
Harry	harry	potter	harry@gmail.com	9876434444
Henry Cowell	henry	hello	henry@gmail.com	9876432300
Lisa Cuddy	lisa	hello	lisa@gmail.com	1234567654
Novak James	novak	hello	novak@gmail.com	9876432341
Jim Parsion	Parsion	hello	jim@gmail.com	9234567899
Roger Fed	rog	hello	roger@gmail.com	9876432345
sam hunt	sam	hello	sam@gmail.com	1234567899
smitha kumar	smitha	smitha	smithakumar16@gmail.com	9986298704
smitha	smitti16	hello	smitti@gmail.com	9986265748
Sneha Kumar	sneha	hello	sneha@gmail.com	9876432340
John Snow	snow	snow	john@gmail.com	9987867564
Vaishnavi	vaish	hello	vaish@gmail.com	1234567898

Figure 4.12 Values of user table

2. Select * from real_estate;

estate_id	address	sqfoot	price	pincode	category	username	status	contract	city
29	#213, 3rd cross, Akshaynagar	3000	2000000	560074	land	smitha	sold	sale	Bangalore
30	#123, Banashankari, Second Stage.	5600	2000000	560070	commercial	smitha	sold	sale	Bangalore
84	#123, 4th cross, HSR layout	5000	4500000	560073	land	smitha	sold	sale	Bangalore
91	B-902, Sapthagiri Splendor, BTM Layout, 4th Stage	5000	65500000	560073	residential	Doe	not_sold	sale	Bangalore
	...								
96	Btm Layout, 4th Stage Sapthagiri Splendor	6700	65500000	560076	residential	sam	sold	lease	Bangalore
98	#21, Bandra Street	3500	4500000	335501	residential	rog	sold	lease	Mumbai
99	#213 Manyatha Tech Park	7500	7000000	230078	commercial	rog	not_sold	lease	Chennai
	...								
109	#3244, 2nd main, Akshaynagar	2300	65500000	560076	land	smitha	sold	sale	Mumbai
111	#123, Krishna Magnum, JP Nagar	8000	55500000	560072	commercial	snow	not_sold	sale	Bangalore
112	#12, JP Nagar 8th Phase	4000	8000000	560065	land	snow	not_sold	sale	Bangalore
113	#1238, 6th cross, JP Nagar	3000	60000000	560078	residential	anu	not_sold	sale	Bangalore
114	B-903, Prestige, BTM Layout	3500	2000000	560074	residential	anu	not_sold	lease	Bangalore
115	#12, 6th cross, RR Nagar	3650	6500000	335502	land	novak	not_sold	sale	Mumbai
116	#1234, Kalyani Magnum	3500	2000000	335504	commercial	novak	not_sold	sale	Mumbai
117	#123, TT Nagar, 6th Main ...	7700	1900000	230074	land	sam	not_sold	sale	Chennai
119	#1238, Steps Mythri, Vasanthpura	3300	60000000	560060	residential	vaish	not_sold	lease	Bangalore
120	#123, BTM Layout	5000	45000000	560073	residential	sam	not_sold	lease	Bangalore

Figure 4.13 Values of real_estate table

3. Select * from lease;

duration	estate_id
7	96
2	98
5	99
5	114
4	119
4	120

Figure 4.14 Values of lease table

4. Select * from residential;

Type	rooms	furnished	estate_id
independent_house	4	semi-furnished	91
flat	2	unfurnished	96
flat	3	unfurnished	98
independent_house	4	semi-furnished	113
flat	4	fully-furnished	114
flat	4	unfurnished	119
flat	3	fully-furnished	120

Figure 4.15 Values of residential table

5. Select * from purchase;

	billing_id	estate_id	buyername
	0000029	29	sam
	0000030	30	snow
	0000084	84	snow
	0000096	96	rog
	0000098	98	sam
	0000109	109	sam

Figure 4.16 Values of purchase table

4.4 SQL Triggers and Stored Procedures

4.4.1 Trigger

A database trigger is procedural code that is automatically executed in response to certain events on a particular table or view in a database. The trigger is mostly used for maintaining the integrity of the information on the database. Triggers execute when a user tries to modify data through a data manipulation language (DML) event. DML events are INSERT, UPDATE, or DELETE statements on a table or view.

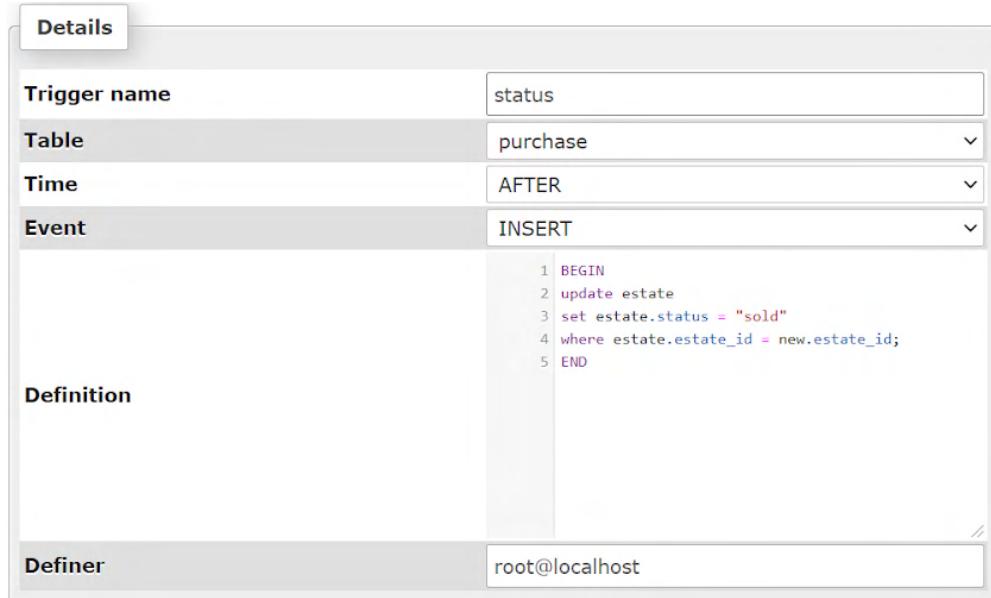


Figure 4.17 Screen capture of trigger

The above trigger sets the status of the real estate purchased by a user as ‘sold’ in the `real_estate` table, after it is purchased.

4.4.2 Stored Procedure

A stored procedure is a set of Structured Query Language (SQL) statements with an assigned name, which are stored in a relational database management system as a group. So if a query has to be written over and over again, instead of having to write that query each time, it can be saved as a stored product and can be executed just by calling the procedure. In addition, parameters can also be passed to the stored procedure. So depending on the need, the stored procedure can act accordingly.

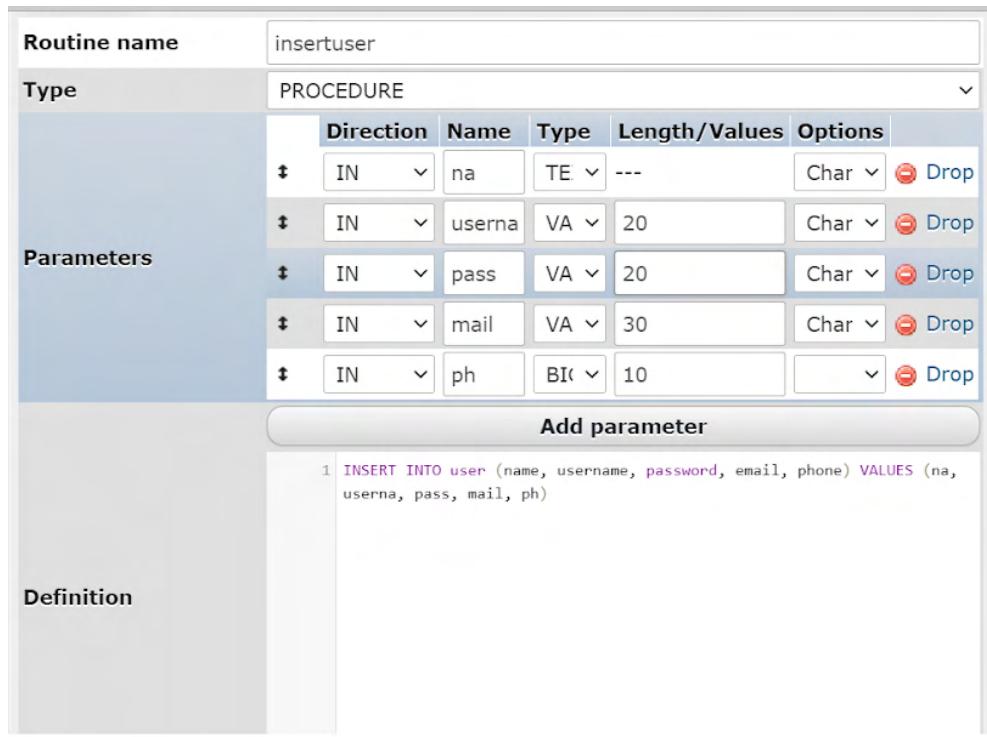


Figure 4.18 Screen capture of stored procedure 1

This stored procedure is used to insert the values of the attributes of the user table whenever a new user registers.

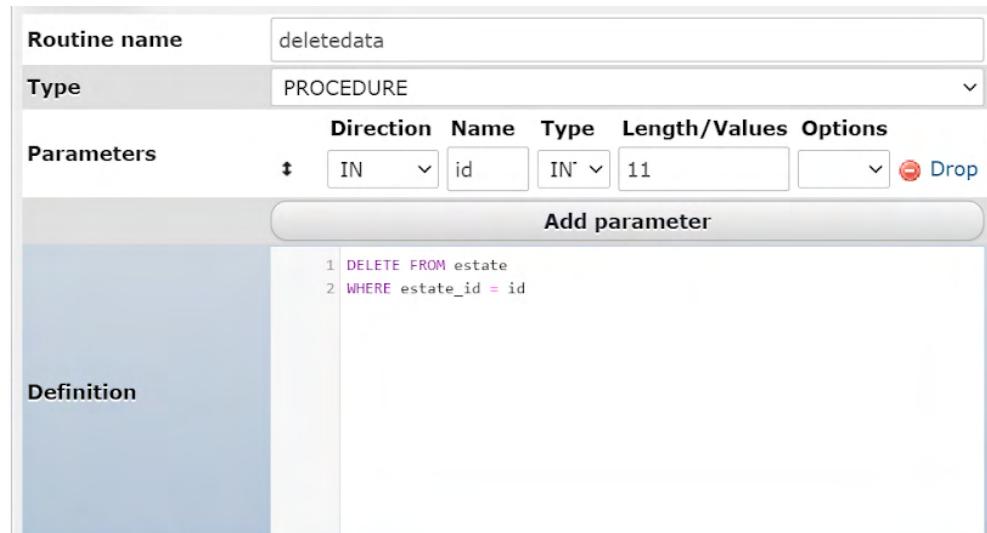


Figure 4.19 Screen capture of stored procedure 2

This stored procedure is used to delete a particular real estate from the database.

4.5 Database Connectivity

A Database connection is a facility in computer science that allows client software to talk to database server software, whether on the same machine or not. A connection is required to send commands and receive answers, usually in the form of a result set. PHP has a pretty straight forward method to working with MySQL databases.

There are five steps to make PHP database interaction

1. Create a connection
2. Select database
3. Perform database query
4. Use return data
5. Close connection

```
<?php  
  
// Five steps to PHP database connections:  
  
session_start();  
  
$servername = "localhost";  
  
$username = "root";  
  
$password = "";  
  
$dbname = "real_estate";  
  
//1. Create a database connection  
  
$conn = mysql_connect($servername, $username, $password);  
  
if($conn)  
  
    echo " CONNECTION ESTABLISHED \r\n";  
  
// 2. Select a database to use  
  
$dbselect=mysql_select_db($dbname,$conn);  
  
if($dbselect)  
  
    echo "Selected";
```

```
// 3. Perform database query

$sql1="select * from estate where category = 'land'";

If( mysql_query($sql1,$conn))

    Echo "selected";

$result=mysql_query($sql1,$conn));

// 4. Use returned data

while ($row = mysql_fetch_array($result)) {

    echo "$row['address']";

    echo "$row['estate_id']";

}

// 5. connection close

mysql_close($connection);

?>
```

4.6 Modules

The below flowchart explains how the system runs in the real world. The system can be easily implemented under various situations. Reusability is possible as and when required in this application. There is flexibility in all the modules which makes the task of the user easier.

The system consists of sellers and buyers. The first time users are required to register to this site. Already registered users can directly login to this site by providing their credentials as either a buyer or a seller. The users can log out of the session when finished with their work.

The buyer system provides the option to search and view the properties along with

the seller details based on certain criterias, shortlist them and finally purchase them.

The users can even view the details of the properties purchased.

The seller module provides the user with the facility to add a new property, view details of the properties that are advertised on the site, and edit or delete an existing property.

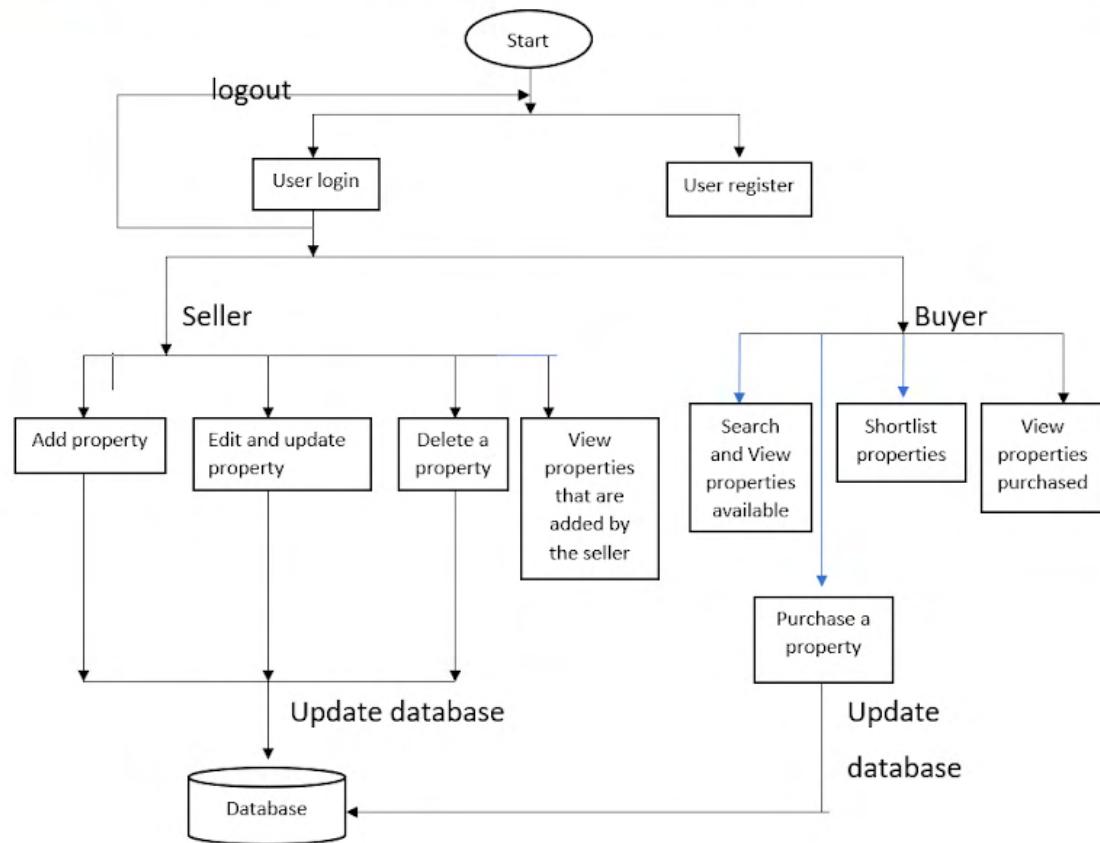


Figure 4.20 Modules of Real Estate Management system

Chapter 5

RESULT

1. Login page:

This is the page where users get to enter their credentials and login as either seller or buyer.

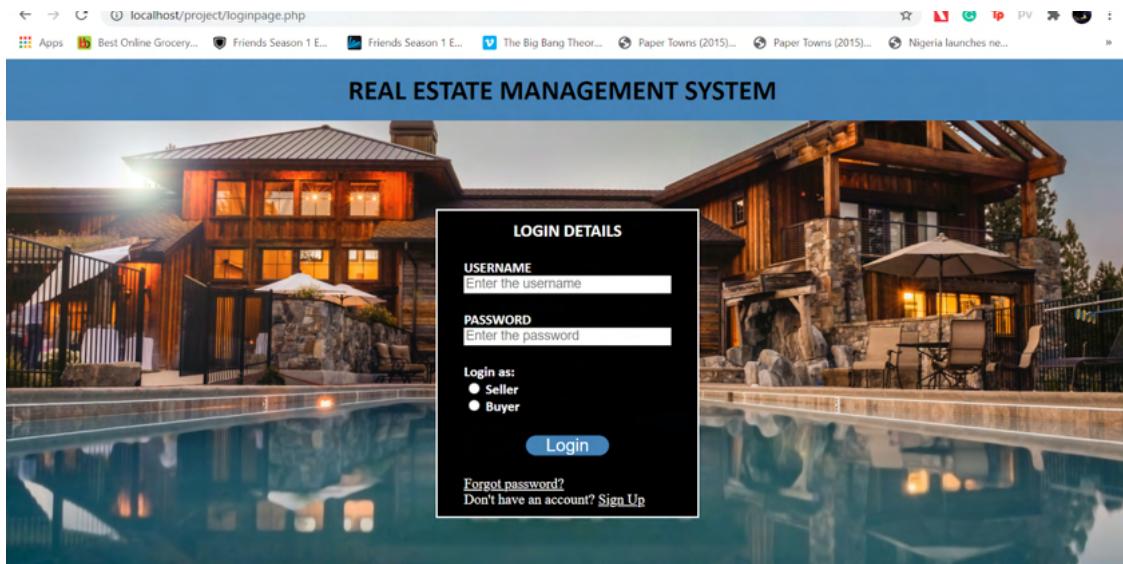


Figure 5.1 Login Page

2. Registration Page:

All the users that are not registered will register by filling out the form on this page. Their details will get updated in the database.

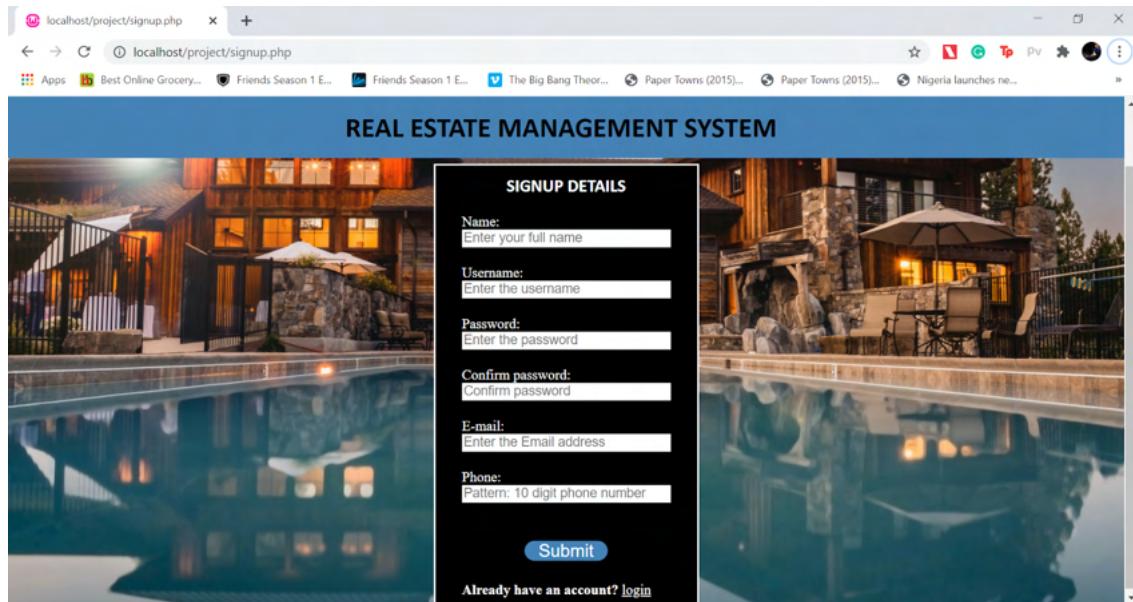


Figure 5.2 Signup Page

3. Seller login.

Home page when the user logs in as a seller.

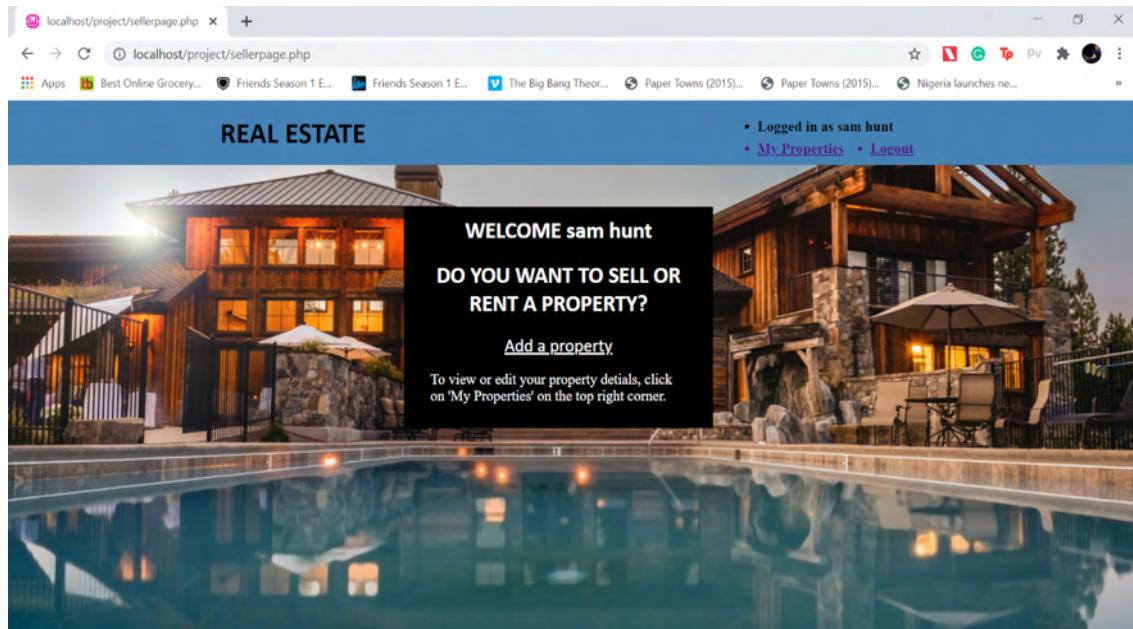


Figure 5.3 Seller Home Page

4. Adding a property:

After clicking on 'Add a property' on the seller home page, the user can provide

the property details.

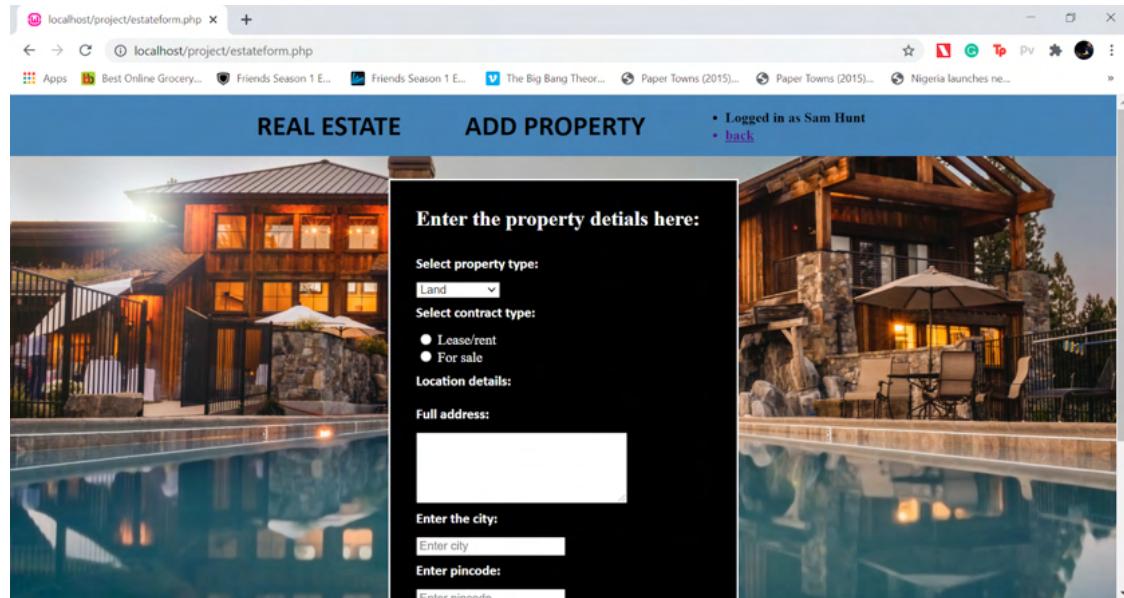


Figure 5.4(a) Add a property page 1

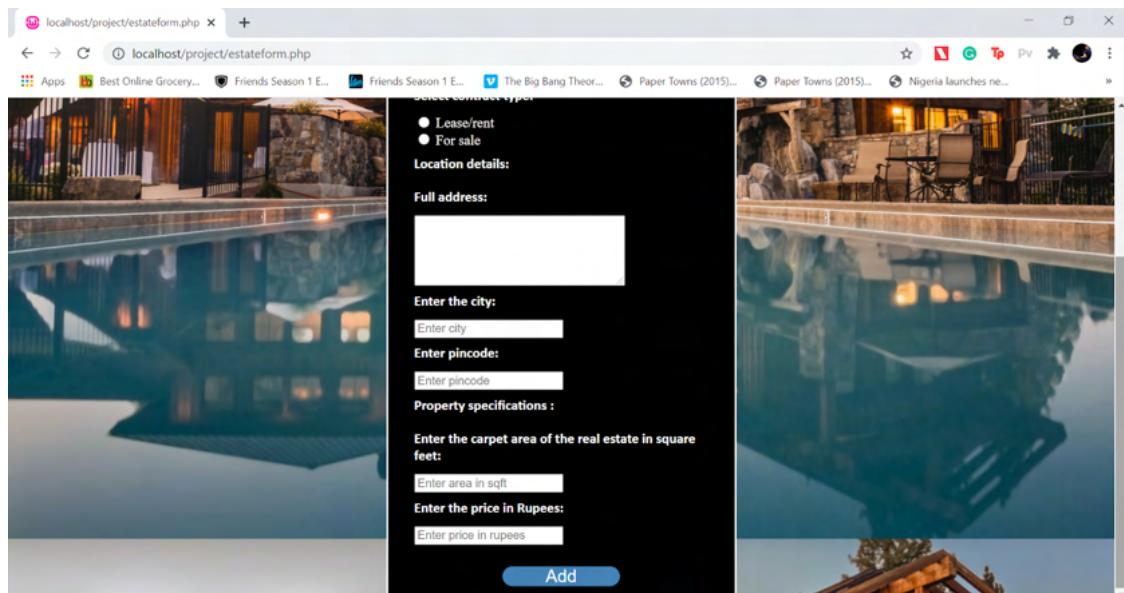


Figure 5.4(b) Add a property Page 2

5. My properties page:

Users can view, edit or delete the properties they have advertised. The user Sam has the following properties. There are options for modifying or deleting these properties. The property whose estate_id is entered into the ‘delete a database’ form will be deleted.

Estate ID	Seller Name	Address	City	Pincode	Price in RS	Area in sqft	Category	contract	status
96	Sam Hunt	Btm Layout, 4th Stage Saphagiri Splendor	Bangalore	560076	65500000	6700	residential	lease	sold
117	Sam Hunt	#123, 11 Nagar, 6th Main	Chennai	230074	1900000	7700	land	sale	not_sold
120	Sam Hunt	#123, BTM Layout	Bangalore	560073	45000000	5000	residential	lease	not_sold

Estate ID	Lease duration
96	7
120	4

Estate ID	Rooms	Furnished	House Type
96	2	unfurnished	flat
120	3	fully-furnished	flat

Modify your details:
 Enter the Estate_ID of the real estate you want to modify:

Delete a database:
 Enter the Estate_ID of the real estate you want to Delete:

Figure 5.5 My Properties Page.

6. Modify property page:

When the estate_id of the property that has to be modified is entered into

the ‘modify your details’, the details of that estate can be modified. Say, we enter estate_id 120, we get the following form to modify.

REAL ESTATE Modify Details

Logged in as Sam Hunt
• hack

Enter the property details here:

Property details:

- Enter the type of house: Flat
- Enter the number of bedrooms: 3
- Furnished type: unfurnished
- Enter the duration of the lease in years: 4

Location details:

Full address: #123, 4th Cross, 3rd Main, BTM Layout 1st Stage

Enter city: Bangalore

Enter pincode: 560073

Property specifications :

Enter the carpet area of the real estate in square feet: 15000

Enter the price in Rupees: 45000000

Update

Figure 5.6 Modify Property page.

7. Buyer login:

This is the buyer home page. It has a lot of criteria to select based on the buyer’s requirement and filter the properties the buyer is interested in. If none of the criteria are selected, then all the real estates in the database

will be displayed as the result. The following image shows a user named Roger Fed logged in as a buyer.

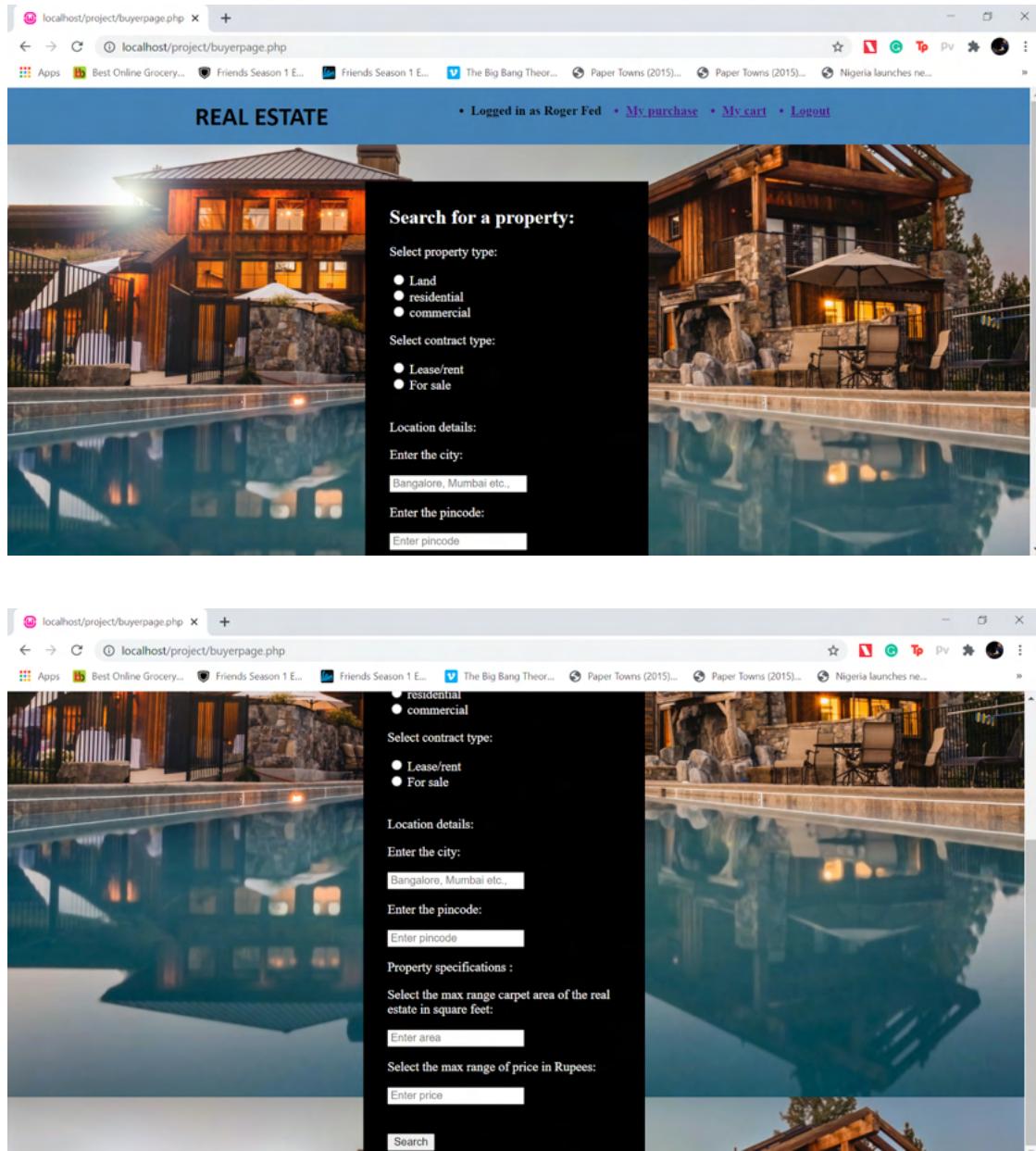


Figure 5.7 Buyer Home page.

8. My purchase:

If the user had previously purchased any property, the details will be stored here.

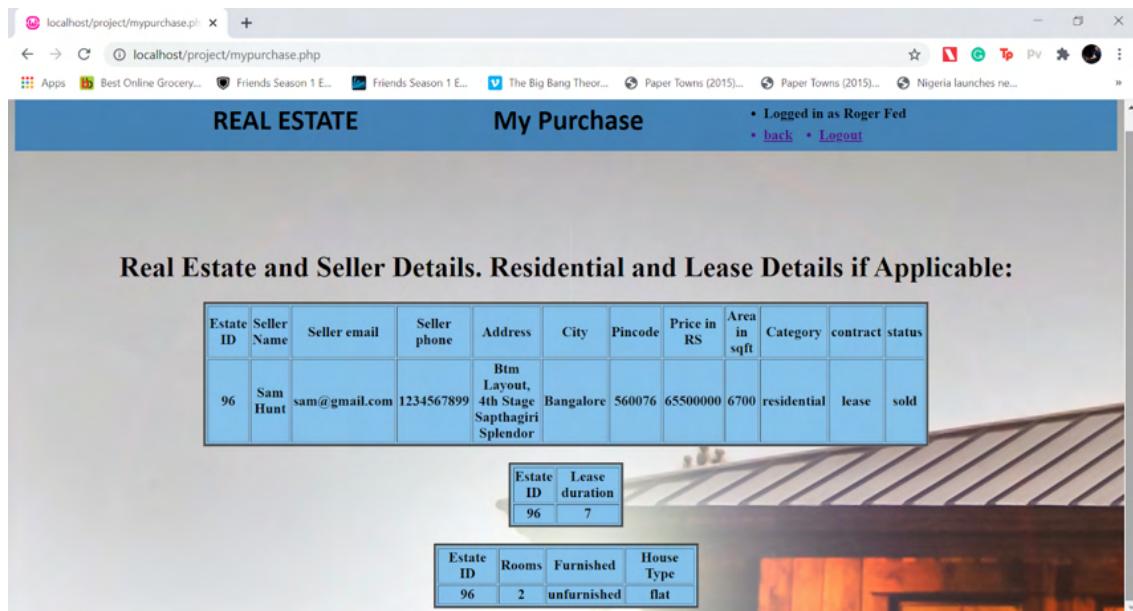


Figure 5.8 My Purchase page.

9. Search result:

When the buyer enters none or more criteria in the home page, we get a filtered result of properties which matches the buyer's requirement. If nothing is entered, all the properties that are available in the database will be displayed. Sold properties and the buyer's own property will not be displayed.

Search result when the category was chosen as land:

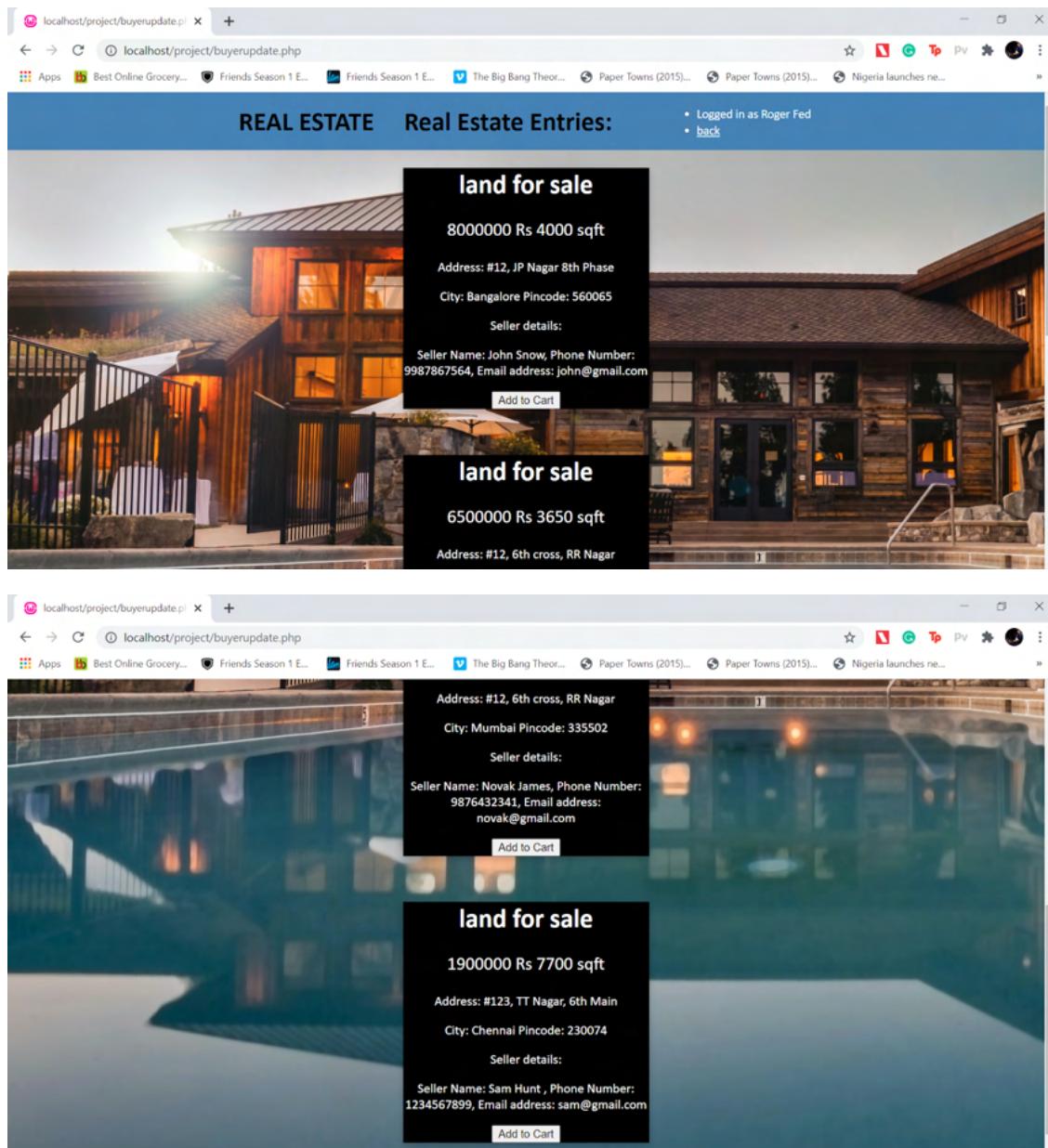


Figure 5.9 Search result page

10. Cart:

The buyer can shortlist the properties he is interested in by adding them to the cart. The properties can be removed later if the buyer changes his/her mind.

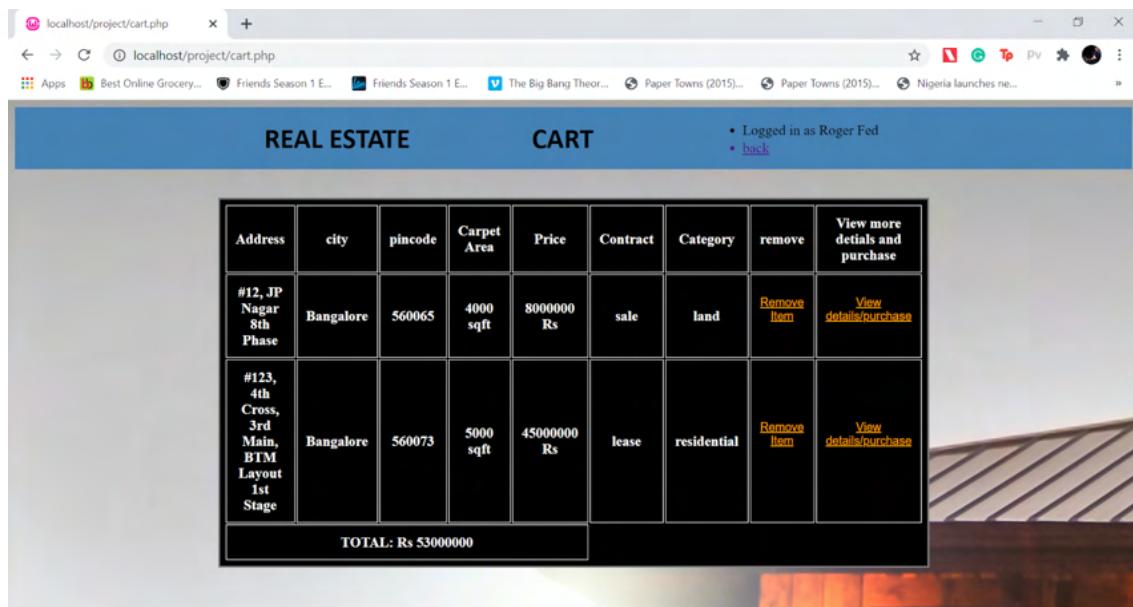


Figure 5.10 Cart page.

11. Purchase page:

When the buyer clicks on ‘view details/purchase’ in cart, a purchase page comes up, where the buyer can go through all the details of the property again and confirm the purchase. Once the purchase is confirmed, it is updated in the backend.

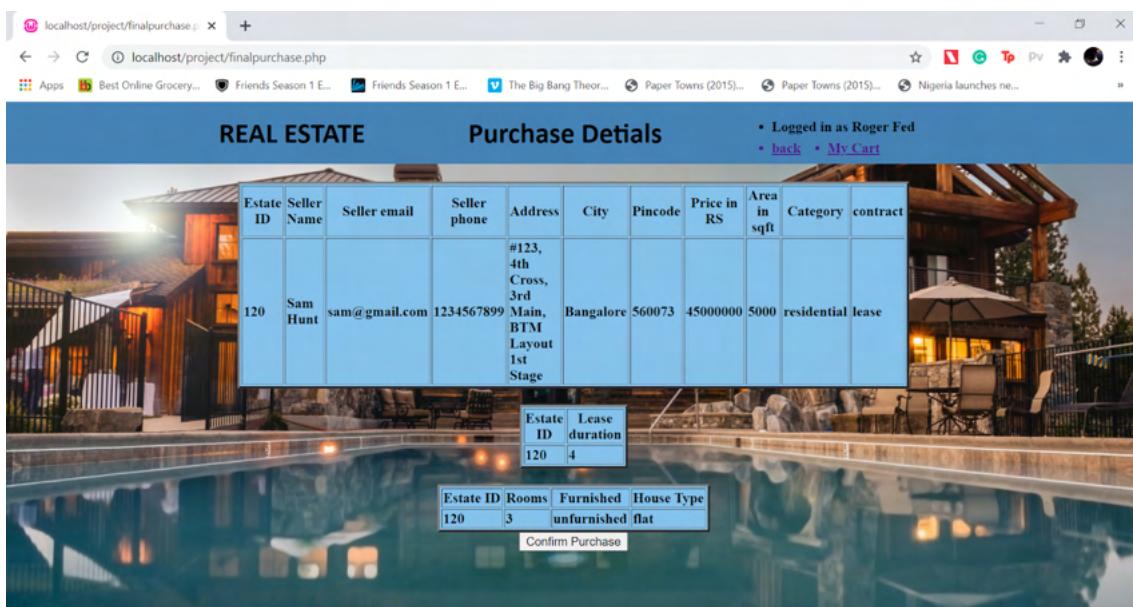


Figure 5.11 Purchase Page

Chapter 6

CONCLUSION AND FUTURE ENHANCEMENTS

6.1 Conclusion

The proposed Real Estate Management system creates an online platform for customers to register, search and purchase real estate properties. It enables the users to buy their dream house, rent a house, buy land, and use real estates for commercial purposes. It provides a platform for the buyers to communicate with the sellers using the seller details and property details given to them. This project helps in modifying the existing system to an online based system. It can be monitored and controlled remotely.

Further the project reduces the manpower required for this job, like brokers. This also helps in having accurate data storage of all the purchases and properties. The user can upload and access any data or information regarding his/her properties any time. The data which is stored in the database helps in taking intelligent and quick responses. The search criteria narrows down the number of properties to a few which fulfill the user's requirements. This portal reduces the damages done to the data unexpectedly, as the only ones who can modify the data are the user's themselves; one user cannot modify or delete the data of another user.

The website is safe to use as it is password protected and the users can login to their accounts only and not anybody else's, and two or more users cannot have the same username. It is easy to access from any location and the properties can be searched and bought faster than the traditional method. The features of this introducing system will call upon the problems that are encountered in the current system, handling large amounts of data, slower pace of searching and purchasing, and human errors.

From this project, the user learns the essential skills such as:

- Understanding the database handling and query processing.
- Demonstrate the working of different concepts of DBMS.
- Implement, analyze and evaluate the project developed for an application.

6.2 Future Enhancement

The system is designed in such a way that provisions can be given for further enhancement without affecting the system presently developed. The enhancements that can be incorporated are:

- Implementation of a payment module which can support the real time transactions.
- A chat server so that buyers can communicate with the sellers and ask them necessary questions.
- Provision to upload multiple images of the real estate on the seller side representing different parts of the real estate, and provision to display those pictures along with the other details on the buyer side.
- A user recommendation system based on the history of a user's search.