VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A Mini Project Report on

REAL ESTATE MANAGEMENT SYSTEM

Submitted in partial fulfillment of the requirements as a part of the DBMS Lab for the V Semester of degree of ***Bachelor of Engineering in Information Science and Engineering*** *of Visvesvaraya Technological University, Belagavi*

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CERTIFICATE

This is to certify that the Mini project report entitled **REAL ESTATE MANAGEMENT SYSTEM** has been successfully completed by **Janavi V Khatawkar** [1RN20IS405] , **Nagesh AP** [1RN20IS410] **, Ramya A** [1RN20IS412] presently V semester student of **RNS Institute of Technology** in partial fulfillment of the requirements as a part of the DBMS Laboratory for the award of the degree **Bachelor of Engineering in Information Science and Engineering** under **Visvesvaraya Technological University, Belagavi** during academic year 2021 – 2022. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The mini project report has been approved as it satisfies the academic requirements as a part of DBMS Laboratory for the said degree.

Dr.Sathish Kumar Faculty Incharge	**Mrs. Kusuma S** Lab Incharge	**Dr. Suresh L** Professor and HOD

External Viva

Name of the Examiners	**Signature with date**
1. _____	_____
2. _____	_____

ABSTRACT

Real estate is a type of business for selling, buying, renting land, buildings and offices. Real estate agencies duties include, to give the property on rent or else to sell the property. Properties like buildings, retail sites, flats, houses, bungalows etc. Many people search for property for many purposes like residence, offices, faculty, etc. Every individual wants his house to be in the best location with the best facilities. Offices should be near market areas in order to increase sales and productivity.

The manual real estate agency follows a lengthy and hectic process. People need to meet the agent in person, for checking the Property details and also need to visit the location. It takes a long time to look for the desired location and desired type of property. Thus, Nevon Projects has proposed a Real estate management system to overcome this difficulty. This online Property management system can help you to get the best property by just sitting at home or anywhere. People can book their favorite property online just after a few clicks.

In this system the agents can add the property for selling/ renting purpose and users can buy or book a property for rent. This system has two modules namely, Admin and User. Admin can add the property details for buildings, retail sites, flats, houses, bungalows. Admin can also add the advertisements of properties and also can check the list of registered clients.

Users need to register and then login just by using credentials. Users can view the properties for rent or for buying purposes. He/ she can mark the favorite properties and can also book appointments for visiting the viewed favorite places.

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

In today's world property managers are finding that traditional systems for organizing and tracking relevant tenant and property data just aren't enough. They need something not only capable of handling massive amounts of information, but also something that can analyses this information for actionable insights. They need reliable real estate management software.

Real estate management is not a new concept. Property managers have been managing relevant data for as long as the rental market has existed. However, as new technologies become more widely available, the capabilities of real estate management are advancing.

1.2 PROBLEM DEFINITION

Real estate management system is an online real estate software application that manages the overall operational activities and processed, starting from the management of the property, to the management of real estate agencies, clients and financial transactions. It provides comprehensive reports for managing the real estate agency performance and efficiency, and enables the management for a better decision-making.

Real estate management software is a CRM program for the rental industry, and its revolutionizing the tenant-manager relationship.

1.3 OBJECTIVES

- The system should have a login or register: a login/register box should appear when the system is invoked.
- The system has two login normal users and builders: normal users can search properties, buy or sell. Builders can upload their available properties.
- The system is very useful for the companies and builders and also for common people.

CHAPTER 2

SOFTWARE AND HARDWARE REQUIREMENT

2.1 SOFTWARE REQUIREMENTS

- SQL
- PHP
- HTML
- Apache server

2.2 HARDWARE REQUIREMENTS

- Microsoft windows XP (etc.)
- Google Chrome, Internet Explore

CHAPTER 3

DESIGNS

3.1 ER DIAGRAM

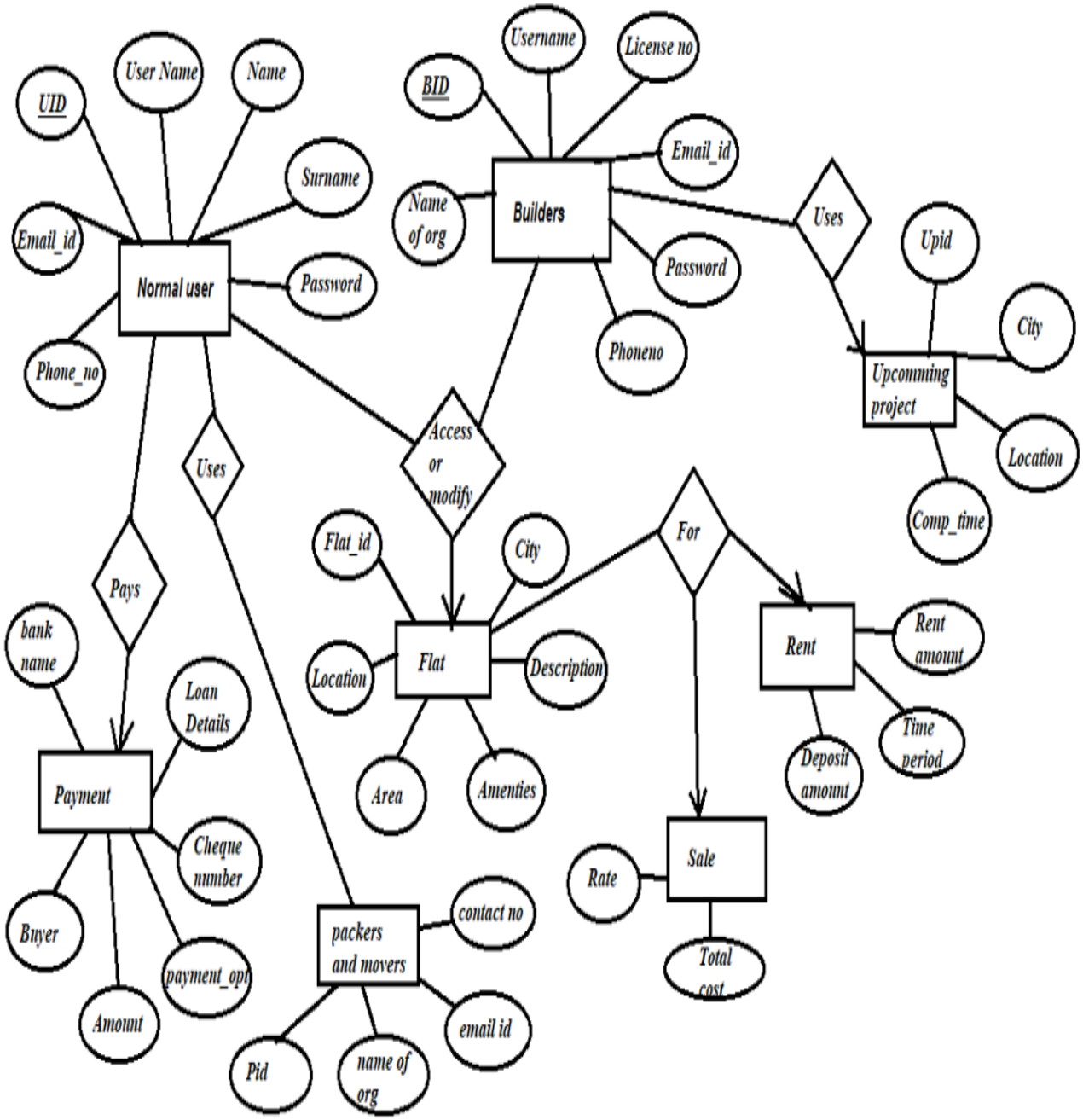

Fig 3.1 ER diagram

3.2 E R Mapping

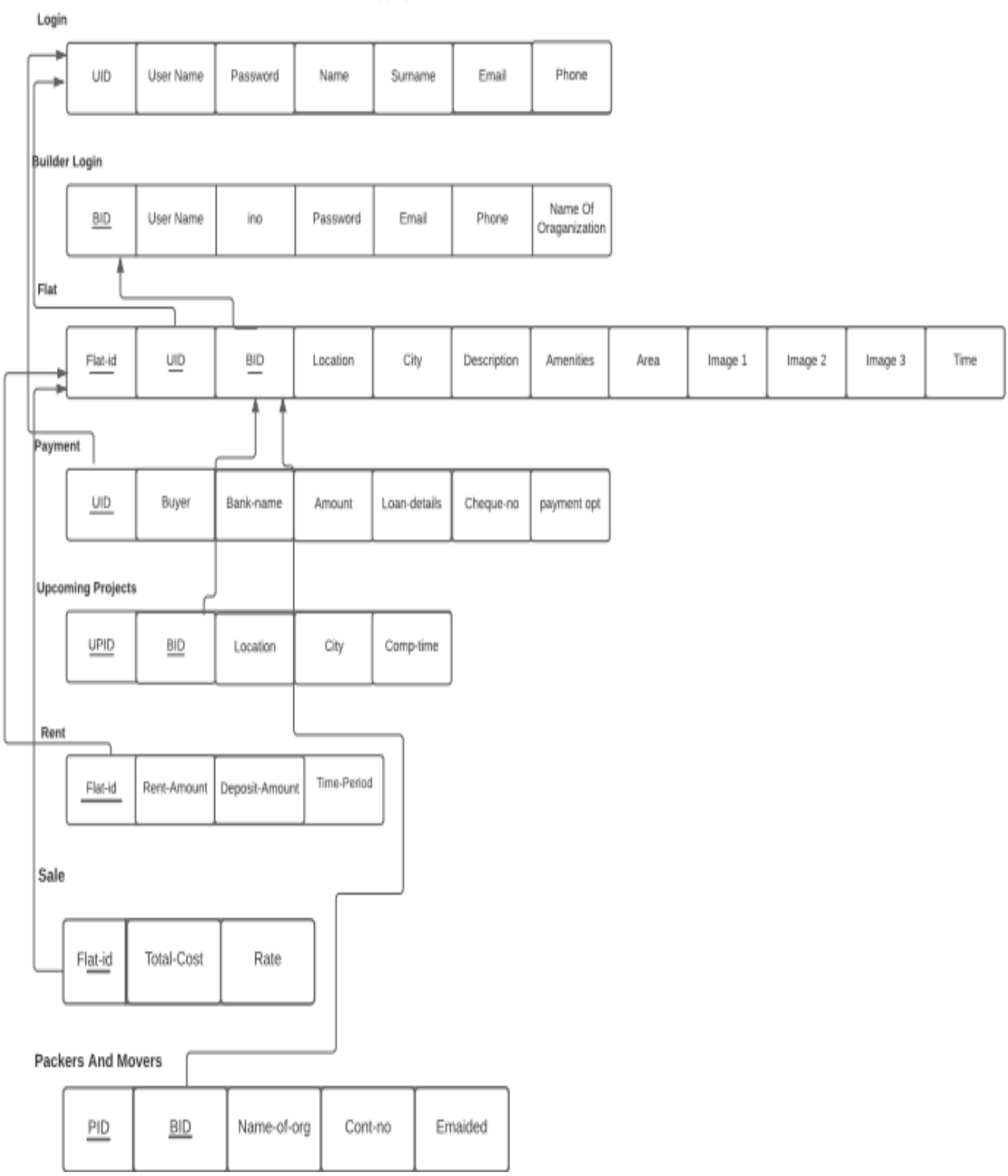

Fig 3.2 ER Mapping

3.3 NORMALISATION

Database Normalization is a technique of organizing the data in the database. Normalization is a systematic approach of decomposing tables to eliminate data redundancy and undesirable characteristics like Insertion, Update and Deletion Anomalies. It is a multi-step process that puts data into tabular form by removing duplicated data from the relation tables.

Normalization is used for mainly two purposes,

- Eliminating redundant (useless) data.
- Ensuring data dependencies make sense i.e. data id logically stored.

FIRST NORMAL FORM (1NF):

As per First Normal Form

- There are no duplicated rows in the table.
- Each cell is single valued or atomic.

SECOND NORMAL FORM (2NF):

As per Second Normal Form, a table is in 2NF if every non-prime attribute is not partially dependent on any key of the table.

THIRD NORMAL FORM (3NF):

Third Normal Form applies that every non-prime attribute of table must be dependent on primary key, or we can say that, there should not be the case that a non-prime attribute is determined by another non-prime attribute. So this transitive functional dependency should be removed from the table and also the table must be in the Second Normal Form.

3.3.1 NORMALISATION OF LOGIN

UID	username	password	name	surname	email	phone

UID ⟶ username

UID ⟶ password

UID ⟶ name

UID ⟶ surname

UID ⟶ email

UID ⟶ phone

First Normal Form

In LOGIN, all the attributes are atomic and there cannot be duplicate rows. Hence, it is in 1NF.

Second Normal Form

This is already in 2NF since every non key attribute is fully dependent on primary key.

Third Normal Form

Since there is no transitive functional dependency, therefore table is already in 3NF.

3.3.2 NORMALISATION OF BUILDER_LOGIN

BID	username	I no	password	Email ID	Phone no.	Name org

BID ⟶ username

BID ⟶ I no

BID ⟶ password

BID ⟶ email id

BID ⟶ phone no.

BID ⟶ name org.

First Normal Form

In BUILDER_LOGIN, all the attributes are atomic and there cannot be duplicate rows. Hence, it is in 1NF.

Second Normal Form

This is already in 2NF since every non key attribute is fully dependent on primary key.

Third Normal Form

Since there is no transitive functional dependency, therefore table is already in 3NF

3.3.3 NORMALISATION OF FLAT

Flat_id	uid	bid	location	city	description	amenities	area	image	Image1	Image2	time

Flat_id, uid, bid ⟶ location

Flat_id, uid, bid ⟶ city

Flat_id, uid, bid ⟶ description

Flat_id, uid, bid ⟶ amenities

Flat_id, uid, bid ⟶ area

Flat_id, uid, bid ⟶ image

Flat_id, uid, bid ⟶ image 1

Flat_id, uid, bid ⟶ image 2

Flat_id, uid, bid ⟶ time

First Normal Form

In RENT, all the attributes are atomic and there cannot be duplicate rows. Hence, it is in 1NF.

Second Normal Form

This is already in 2NF since every non key attribute is fully dependent on primary key.

Third Normal Form

Since there is no transitive functional dependency, therefore table is already in 3NF.

3.3.4 NORMALISATION OF PAYMENT

UID	buyer	Bank_name	amount	Loan_details	Cheque_number	Payment opt.

UID ⟶ buyer

UID ⟶ bank_name

UID ⟶ amount

UID ⟶ loan_Details

UID ⟶ cheque_number

UID ⟶ payment opt.

First Normal Form

In Payment, all the attributes are atomic and there cannot be duplicate rows. Hence, it is in 1NF.

Second Normal Form

This is already in 2NF since every non key attribute is fully dependent on primary key.

Third Normal Form

Since there is no transitive functional dependency, therefore table is already in 3NF.

3.3.5 NORMALISATION OF UPCOMING PROJECTS

UPID	bid	location	city	Comp_time

UPID, bid ⟶ location

UPID, bid ⟶ city

UPID, bid ⟶ comp_time

First Normal Form

In UPCOMING PROJECTS, all the attributes are atomic and there cannot be duplicate rows. Hence, it is in 1NF.

Second Normal Form

This is already in 2NF since every non key attribute is fully dependent on primary key.

Third Normal Form

Since there is no transitive functional dependency, therefore table is already in 3NF.

3.3.6 NORMALISATION OF RENT

flat_id	Rent_amount	Deposit_amount	Time_period

flat_id ⟶ rent_amount

flat_id ⟶ deposite_amount

flat_id ⟶ time_period

First Normal Form

In RENT, all the attributes are atomic and there cannot be duplicate rows. Hence, it is in 1NF.

Second Normal Form

This is already in 2NF since every non key attribute is fully dependent on primary key.

Third Normal Form

Since there is no transitive functional dependency, therefore table is already in 3NF.

3.3.7 NORMALISATION OF SALE

flat_id	Total_cost	rate

flat_id ⟶ total_cost

flat_id ⟶ rate

First Normal Form

In SALE, all the attributes are atomic and there cannot be duplicate rows. Hence, it is in 1NF.

Second Normal Form

This is already in 2NF since every non key attribute is fully dependent on primary key.

Third Normal Form

Since there is no transitive functional dependency, therefore table is already in 3NF.

3.4 SCHEMA DIAGRAM

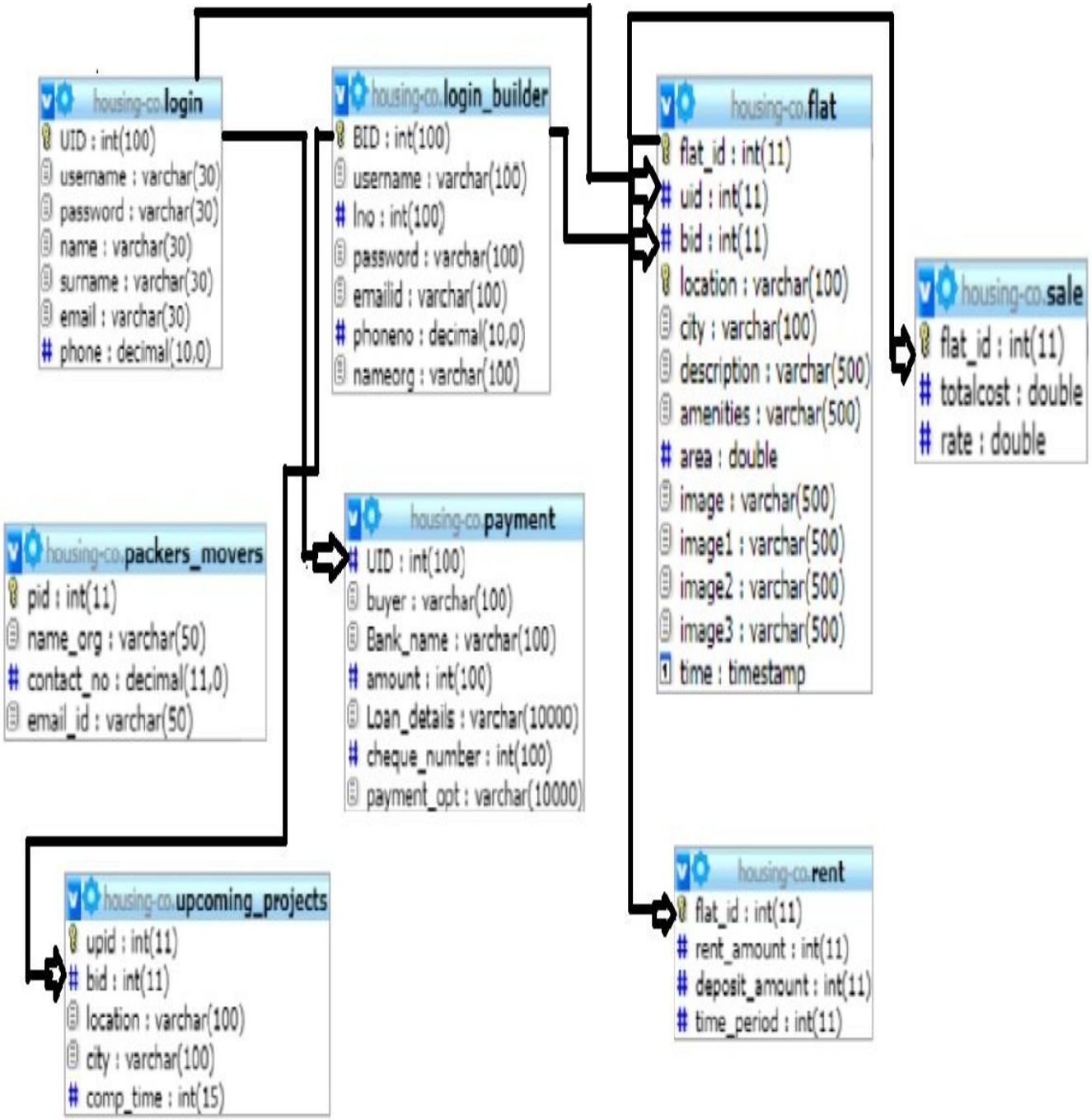

Fig 3.4 Schema Diagram

3.5 TABLES

3.5.1 Table name: login

Primary key: UID

Description: users can login with their personal details

Table 3.5.1 login

Field	Type	Collation	Attributes	Null	Default
UID	int(100)			No	*None*
username	varchar(30)	latin1_swedish_ci		No	*None*
password	varchar(30)	latin1_swedish_ci		No	*None*
name	varchar(30)	latin1_swedish_ci		No	*None*
surname	varchar(30)	latin1_swedish_ci		No	*None*
email	varchar(30)	latin1_swedish_ci		No	*None*
phone	decimal(10,0)			No	*None*

3.5.2 Table name: builder_login

Primary key: BID

Description: this is for builders

Table 3.5.2. builder_login

Field	Type	Collation	Attributes	Null	Default
BID	int(100)			No	*None*
username	varchar(100)	latin1_swedish_ci		No	*None*
lno	int(100)			No	*None*
password	varchar(100)	latin1_swedish_ci		No	*None*
emailid	varchar(100)	latin1_swedish_ci		No	*None*
phoneno	decimal(10,0)			No	*None*
nameorg	varchar(100)	latin1_swedish_ci		No	*None*

3.5.3 Table name: flat

Primary key: flat_id

Table 3.5.3 flat

Field	Type	Collation	Attributes	Null	Default
flat_id	int(11)			No	*None*
uid	int(11)			Yes	*NULL*
bid	int(11)			Yes	*NULL*
location	varchar(100)	latin1_swedish_ci		No	*None*
city	varchar(100)	latin1_swedish_ci		No	*None*
description	varchar(500)	latin1_swedish_ci		No	*None*
amenities	varchar(500)	latin1_swedish_ci		No	*None*
area	double			No	*None*
image	varchar(500)	latin1_swedish_ci		No	*None*
image1	varchar(500)	latin1_swedish_ci		No	*None*
image2	varchar(500)	latin1_swedish_ci		No	*None*
image3	varchar(500)	latin1_swedish_ci		No	*None*
time	timestamp			Yes	CURRENT_TIMESTAMP

3.5.3 Table name: payment

Primary key: UID

Description: used for payments

Table 3.5.3 payment

Field	Type	Collation	Attributes	Null	Default
UID	int(100)			No	*None*
buyer	varchar(100)	latin1_swedish_ci		No	*None*
Bank_name	varchar(100)	latin1_swedish_ci		No	*None*
amount	int(100)			No	*None*
Loan_details	varchar(10000)	latin1_swedish_ci		No	*None*
cheque_number	int(100)			No	*None*
payment_opt	varchar(10000)	latin1_swedish_ci		No	*None*

3.5.4 Table name: upcoming projects

Primary key: UPID

Description: to update the details of upcoming projects

Table 3.5.4 upcoming projects

Field	Type	Collation	Attributes	Null	Default
upid	int(11)			No	None
bid	int(11)			No	None
location	varchar(100)	latin1_swedish_ci		No	None
city	varchar(100)	latin1_swedish_ci		No	None
comp_time	int(15)			No	None

3.5.5 Table name: rent

Primary key: flat_id

Table 3.5.5 rent

Field	Type	Collation	Attributes	Null	Default
flat_id	int(11)			No	None
rent_amount	int(11)			No	None
deposit_amount	int(11)			No	None
time_period	int(11)			No	None

3.5.6 Table name: sale

Primary key: flat_id

Table 3.5.6 sale

Field	Type	Collation	Attributes	Null	Default
flat_id	int(11)			No	None
totalcost	double			No	None
rate	double			No	None

3.5.7 Table name: packers and movers

Primary key: PID

Table 3.5.7 packers and movers

Field	Type	Collation	Attributes	Null	Default
pid	int(11)			No	*None*
name_org	varchar(50)	latin1_swedish_ci		No	*None*
contact_no	decimal(11,0)			No	*None*
email_id	varchar(50)	latin1_swedish_ci		No	*None*

CHAPTER 4

IMPLEMENTATION

4.1 FRONT END CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
	<title>HOUSING-CO</title>
	<meta charset="UTF-8">
	<meta name="description" content="HOUSING-CO">
	<meta name="keywords" content="LERAMIZ, unica, creative, html">
	<meta name="viewport" content="width=device-width, initial-scale=1.0">
	<!-- Favicon -->
	<link href="img/favicon.ico" rel="shortcut icon"/>

	<!-- Google Fonts -->
	<link href="https://fonts.googleapis.com/css?family=Source+Sans+Pro" rel="stylesheet">

	<!-- Stylesheets -->
	<link rel="stylesheet" href="css/bootstrap.min.css"/>
	<link rel="stylesheet" href="css/font-awesome.min.css"/>
	<link rel="stylesheet" href="css/animate.css"/>
	<link rel="stylesheet" href="css/owl.carousel.css"/>
	<link rel="stylesheet" href="css/style.css"/>
		<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
	<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
	<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"></script>
	<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"></script>

	<link rel="stylesheet" type="text/css" href="Styles.css">
	<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>


	<!--[if lt IE 9]>
	  <script src="https://oss.maxcdn.com/html5shiv/3.7.2/html5shiv.min.js"></script>
	  <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
	<![endif]-->

</head>
<body>
	<!-- Page Preloder -->
	<div id="preloder">
```

```
<div class="loader"></div>
        </div>

        <!-- Header section -->
        <header class="header-section">
                <div class="header-top">
                        <div class="container">
                                <div class="row">

                                        <div class="col-lg-12 text-lg-right header-top-right">
                                                <div class="top-social">

                                                        <a href="https://www.facebook.com/"><i
class="fa fa-facebook"></i></a>
                                                        <a href="https://www.twitter.com/"><i
class="fa fa-twitter"></i></a>
                                                        <a href="https://www.instagram.com/"><i
class="fa fa-instagram"></i></a>
                                                        <a href="https://www.pinterest.com/"><i
class="fa fa-pinterest"></i></a>
                                                        <a href="https://www.linkedin.com/"><i
class="fa fa-linkedin"></i></a>


                                                </div>

                                                <div class="user-panel">
                                                        <a href="register.php"><i class="fa fa-user-
circle-o"></i> Register(Normal User)</a>
                                                        <a href="reg_builder.php"><i class="fa fa-user-
circle-o"></i> Register(Builder)</a>
                                                        <a href="loginuser.php"><i class="fa fa-sign-
in"></i>Login</a>
                                                </div>
                                        </div>
                                </div>
                        </div>
                </div>
                <div class="container">
                        <div class="row">
                                <div class="col-12">
                                        <div class="site-navbar">
                                                <a href="#" class="site-logo">img src = img/logo1 <"
alt=""></a>
                                                <div class="nav-switch">
                                                        <i class="fa fa-bars"></i>
                                                </div>
                                                <ul class="main-menu">
```

```
<li><a href="index.html">HOME</a></li>
                                        <li><a href="about.html">ABOUT US</a></li>
                                        <li><a href="contact.html">CONTACT US</a></li>
                                    </ul>
                                </div>
                            </div>
                        </div>
                    </div>
                </header>
                <!-- Header section end -->


                <!-- Hero section -->
                <section class="hero-section set-bg" data-setbg="img/bg.jpg">
                    <div class="container hero-text text-white">
                        <h2>find your place with our local life style</h2>
                        <p>Search real estate property records, houses, condos, land and more on HOUSING-CO.com®.<br>Find property info from the most comprehensive source data.</p>
                    </div>
                </section>

                <!-- Hero section end -->
                <!-- Services section -->
                <section class="services-section spad set-bg" data-setbg="img/service-bg.jpg">
                    <div class="container">
                        <div class="row">
                            <div class="col-lg-6">
                                <img src="img/service.jpg" alt="">
                            </div>
                            <div class="col-lg-5 offset-lg-1 pl-lg-0">
                                <div class="section-title text-white">
                                    <h3>OUR SERVICES</h3>
                                    <p>We provide the perfect service for </p>
                                </div>
                                <div class="services">
                                    <div class="service-item">
                                    <i class="fa fa-comments"></i>
                                        <div class="service-text">
                                        <h5>Consultant Service</h5>
                                        <p>We provide you with the best services which is best for your family and which suits your pocket.</p>
                                        </div>
                                    </div>
                                    <div class="service-item">
                                        <i class="fa fa-home"></i>
                                        <div class="service-text">
                                            <h5>Properties Management</h5>
```

```
<p>We manage your property considering as our own and give you the best possible solution regarding it.</p>
                                        </div>
                                    </div>
                                    <div class="service-item">
                                        <i class="fa fa-briefcase"></i>
                                        <div class="service-text">
                                            <h5>Renting and Selling</h5>
                                            <p>Enjoy various services provided by us without any mid-man, Book your dream home today!.</p>
                                        </div>
                                    </div>
                                </div>
                            </div>
                        </div>
                    </div>
                </section>
                <!-- Services section end -->
                <!-- Blog section -->
                <section class="blog-section spad">
                    <div class="container">
                        <div class="section-title text-center">
                            <h3>LATEST NEWS</h3>
                            <p>Real estate news headlines around the world.</p>
                        </div>
                        <div class="row">
                            <div class="col-lg-4 col-md-6 blog-item">
                                <img src="img/blog/1.jpg" alt="">
                                <h5><a href="#">Housing confidence hits record high as prices skyrocket</a></h5>
                                <div class="blog-meta">
                                    <span><i class="fa fa-user"></i>Manas Sinkar</span>
                                    <span><i class="fa fa-clock-o"></i>25 Jan 2019</span>
                                </div>
                                <p>Housing confidence hits record high as home prices skyrocket. Consumer confidence in housing jumped to its highest level on record in April, according to Fannie Mae.</p>
                            </div>
                            <div class="col-lg-4 col-md-6 blog-item">
                                <img src="img/blog/2.jpg" alt="">
                                <h5><a href="#">Taylor Swift is selling her $2.95 million Beverly Hills mansion</a></h5>
                                <div class="blog-meta">
                                    <span><i class="fa fa-user"></i>Parth Thosani</span>
                                    <span><i class="fa fa-clock-o"></i>04 Feb 2019</span>
                                </div>
```

```
<p>Swift sold a Beverly Hills, California home for $2.65 million, The Los Angeles Times reported Saturday, following the May sale of a $4 million property in the same neighborhood.</p>
                                </div>
                                <div class="col-lg-4 col-md-6 blog-item">
                                        <img src="img/blog/3.jpg" alt="">
                                        <h5><a href="#">NYC luxury housing market saturated with inventory, says celebrity realtor</a></h5>
                                        <div class="blog-meta">
                                                <span><i class="fa fa-user"></i>Jaydeep Vaghasiya</span>
                                                <span><i class="fa fa-clock-o"></i>14 Mar 2019</span>
                                        </div>
                                        <p>Integer luctus diam ac scerisque consectetur. Vimus dotnetact euismod lacus sit amet. Aenean interdus mid vitae maximus...</p>
                                </div>
                        </div>
                </div>
        </section>
        <!-- Blog section end -->

        <!-- Clients section -->
        <div class="clients-section">
                <div class="container">
                        <div class="clients-slider owl-carousel">
                                <a href="#">
                                        <img src="img/partner/1.png" alt="">
                                </a>
                                <a href="#">
                                        <img src="img/partner/2.png" alt="">
                                </a>
                                <a href="#">
                                        <img src="img/partner/3.png" alt="">
                                </a>
                                <a href="#">
                                        <img src="img/partner/4.png" alt="">
                                </a>
                                <a href="#">
                                        <img src="img/partner/5.png" alt="">
                                </a>
                        </div>
                </div>
        </div>
        <!-- Clients section end -->



        <!-- Footer section -->
```

```
<footer class="footer-section set-bg" data-setbg="img/footer-bg.jpg">
		<div class="container">
			<div class="row">
				<div class="col-lg-3 col-md-6 footer-widget">
					<img src="img/logo1.png" alt="">
					<p>We provide you with the best services which is best for your family and which suits your pocket.</p>
					<div class="social">

<a href="https://www.facebook.com/"><i class="fa fa-facebook"></i></a>
<a href="https://www.twitter.com/"><i class="fa fa-twitter"></i></a>
<a href="https://www.instagram.com/"><i class="fa fa-instagram"></i></a>
<a href="https://www.pinterest.com/"><i class="fa fa-pinterest"></i></a>

					</div>
				</div>
				<div class="col-lg-3 col-md-6 footer-widget">
					<div class="contact-widget">
<h5 class="fw-title">CONTACT US</h5>
<p><i class="fa fa-map-marker"></i>You can contact us here..... </p>
<p><i class="fa fa-phone"></i>Number</p>
<p><i class="fa fa-envelope"></i>info.housing-co@gmail.com</p>
<p><i class="fa fa-clock-o"></i>Mon - Sat, 08 AM - 06 PM</p>
					</div>
				</div>
				<div class="col-lg-3 col-md-6 footer-widget">
					<div class="double-menu-widget">
<h5 class="fw-title">POPULAR PLACES</h5>
<ul>
	<li><a href="">Mumbai</a></li>
	<li><a href="">Delhi</a></li>
	<li><a href="">Chennai</a></li>
	<li><a href="">Kolkata</a></li>
	<li><a href="">Banglore</a></li>
</ul>
<ul>
	<li><a href="">Chandigarh</a></li>
	<li><a href="">Pune</a></li>
	<li><a href="">Jaipur</a></li>
	<li><a href="">Kochi</a></li>
	<li><a href="">Ooty</a></li>
</ul>
```

```
</div>
                                </div>
                                <div class="col-lg-3 col-md-6  footer-widget">
                                        <div class="newslatter-widget">
                                                <h5 class="fw-title">NEWSLETTER</h5>
                                                <p>Subscribe your email to get the latest news and new
offer also discount</p>
                                                <form class="footer-newslatter-form">
                                                        <input type="text" placeholder="Email
address">
                                                        <button><i class="fa fa-send"></i></button>
                                                </form>
                                        </div>
                                </div>
                        </div>

                </div>
        </footer>

        <!-- Footer section end -->

        <!--====== Javascripts & Jquery ======-->
        <script src="js/jquery-3.2.1.min.js"></script>
        <script src="js/bootstrap.min.js"></script>
        <script src="js/owl.carousel.min.js"></script>
<script src="js/masonry.pkgd.min.js"></script>
        <script src="js/magnific-popup.min.js"></script>
        <script src="js/main.js"></script>
</body>
</html>
```

4.2 BACK END CODE CREATION

1] FLAT

```
CREATE TABLE `flat`
(
 `flat_id` int(11) NOT NULL,
`uid` int(11) DEFAULT NULL,
`bid` int(11) DEFAULT NULL,
`location` varchar(100) NOT NULL,
`city` varchar(100) NOT NULL,
```

```
`description` varchar(500) NOT NULL,
 `amenities` varchar(500) NOT NULL,
`area` double NOT NULL,
 `image` varchar(500) NOT NULL,
`image1` varchar(500) NOT NULL,
 `image2` varchar(500) NOT NULL,
`image3` varchar(500) NOT NULL,
`time` timestamp NULL DEFAULT CURRENT_TIMESTAMP
)
ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

2] LOGIN

```
CREATE TABLE `login`
(
 `UID` int(100) NOT NULL,
`username` varchar(30) NOT NULL,
`password` varchar(30) NOT NULL,
`name` varchar(30) NOT NULL,
`surname` varchar(30) NOT NULL,
`email` varchar(30) NOT NULL,
`phone` decimal(10,0) NOT NULL
)
ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

3] BUILDER

```
CREATE TABLE `login_builder`
(
 `BID` int(100) NOT NULL,
 `username` varchar(100) NOT NULL,
`lno` int(100) NOT NULL,
`password` varchar(100) NOT NULL,
```

```
`emailid` varchar(100) NOT NULL,
`phoneno` decimal(10,0) NOT NULL,
`nameorg` varchar(100) NOT NULL
)
ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

4] PACKERS AND MOVERS

```
CREATE TABLE `packers_movers`
(
 `pid` int(11) NOT NULL,
`name_org` varchar(50) NOT NULL,
`contact_no` decimal(11,0) NOT NULL,
`email_id` varchar(50) NOT NULL
)
 ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

5] PAYMENT

```
CREATE TABLE `payment`
(
`UID` int(100) NOT NULL,
 `buyer` varchar(100) NOT NULL,
 `Bank_name` varchar(100) NOT NULL,
 `amount` int(100) NOT NULL,
`Loan_details` varchar(10000) NOT NULL,
`cheque_number` int(100) NOT NULL,
 `payment_opt` varchar(10000) NOT NULL
)
ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

6] RENT

```
CREATE TABLE `rent`
(
 `flat_id` int(11) NOT NULL,
`rent_amount` int(11) NOT NULL,
`deposit_amount` int(11) NOT NULL,
 `time_period` int(11) NOT NULL
)
ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

7] SALE

```
CREATE TABLE `sale`
(
`flat_id` int(11) NOT NULL,
`totalcost` double NOT NULL,
`rate` double NOT NULL
)
 ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

8] UPCOMING PROJECTS

```
CREATE TABLE `upcoming_projects`
(
 `upid` int(11) NOT NULL,
 `bid` int(11) NOT NULL,
`location` varchar(100) NOT NULL,
 `city` varchar(100) NOT NULL,
 `comp_time` int(15) NOT NULL
 );
```

INSERTION

1) FLAT

INSERT INTO `flat`

(`flat_id`, `uid`, `bid`, `location`, `city`, `description`, `amenities`, `area`, `image`, `image1`, `image2`, `image3`, `time`)

VALUES

(1, 1, NULL, 'Andheri', 'Mumbai', 'Best flat', 'Swimming pool', 450, 'img/img5.jpg', 'img/img5.jpg', 'img/img5.jpg', 'img/img5.jpg', '2019-04-15 03:27:48'),

(2, 1, NULL, 'Mira road', 'Mumbai', 'Near Station', 'gym and parking', 500, 'img/img10.jpg', 'img/img10.jpg', 'img/img10.jpg', 'img/img10.jpg', '2019-04-15 03:30:16'),

(3, 1, NULL, 'Borivali', 'Mumbai', 'Awesome', 'Best parking', 450, 'img/img16.jpg', 'img/img16.jpg', 'img/img16.jpg', 'img/img16.jpg', '2019-04-15 03:33:16'),

(4, 1, NULL, 'Virar', 'Mumbai', 'Near station', 'Gym and pool', 450, 'img/img18.jpg', 'img/img18.jpg', 'img/img18.jpg', 'img/img18.jpg', '2019-04-15 03:34:39'),

(6, 1, NULL, 'Malad', 'Mumbai', 'Very awesome flat', 'Swimming Pool', 550, 'img/img10.jpg', 'img/img10.jpg', 'img/img10.jpg', 'img/img10.jpg', '2019-04-15 05:27:52')

2) LOGIN

INSERT INTO `login` (`UID`, `username`, `password`, `name`, `surname`, `email`, `phone`)

VALUES

(1, 'manassinkar', 'manas12345', 'Manas', 'Sinkar', 'manas.sinkar@gmail.com', '9022942188'),

(2, 'jaydeep', 'jaydeep12345', 'Jaydeep', 'Vaghasiya', 'jaydeep@gmail.com', '9854545452'),

(3, 'parththosani', 'parth12345', 'Parth', 'Thosani', 'parth@gmail.com', '9854512541');

3) BUILDER

INSERT INTO `login_builder` (`BID`, `username`, `lno`, `password`, `emailid`, `phoneno`, `nameorg`)

VALUES

(1, 'manasbuilder', 12345, 'manas12345', 'manas@gmail.com', '9022942188', 'Manas Builders'),

(2, 'jaydeep', 56789, 'jaydeep12345', 'jaydeep@gmail.com', '9565112574', 'Jaydeep Builders'),

(3, 'parthbuilder', 13579, 'parth12345', 'parth@gmail.com', '9885846564', 'Parth Builders');

4) PACKERS AND MOVERS

INSERT INTO `packers_movers` (`pid`, `name_org`, `contact_no`, `email_id`)

VALUES

(1, 'abcd', '9022942188', 'manas.sinkar@gmail.com'),

(2, 'pqrs', '7977261097', 'manas.sinkar@spit.ac.in'),

(3, 'Manas ', '6846565465', 'manas@gmail.com'),

(4, 'parth', '7208201778', 'thosaniparth@gmail.com');

5) RENT

INSERT INTO `rent` (`flat_id`, `rent_amount`, `deposit_amount`, `time_period`)

VALUES

(3, 15000, 50000, 5),

(4, 20000, 60000, 7)

6) SALE

INSERT INTO `sale` (`flat_id`, `totalcost`, `rate`)

VALUES

(1, 3600000, 8000),

(2, 4500000, 9000),

(6, 11000000, 20000);

4.2.1 Triggers

```
CREATE TRIGGER after_user_insert
BEFORE INSERT
ON login FOR EACH ROW
INSERT INTO user_details(username,emailid,timestamp) VALUES
(new.username,new.email,CURRENT_TIMESTAMP)
```

4.2.2 SQL Queries

DROP TABLE IF EXISTS `cardsale`;

CREATE ALGORITHM=UNDEFINED DEFINER=`root`@`localhost` SQL SECURITY DEFINER VIEW `cardsale` AS

Select `flat`.`flat_id` AS `flat_id`,`flat`.`location` AS `location`,`flat`.`city` AS `city`,`sale`.`totalcost` AS `totalcost`,`flat`.`image` AS `image`,`flat`.`time` AS `time` from (`flat` join `sale` on((`flat`.`flat_id` = `sale`.`flat_id`))) ;

Indexes for table `flat`

ALTER TABLE `flat`

ADD PRIMARY KEY (`flat_id`),

ADD UNIQUE KEY `address` (`location`);

Indexes for table `login`

ALTER TABLE `login`

ADD PRIMARY KEY (`UID`);

Indexes for table `login_builder`

ALTER TABLE `login_builder`

ADD PRIMARY KEY (`BID`);

Indexes for table `packers_movers`

ALTER TABLE `packers_movers`

ADD PRIMARY KEY (`pid`);

Indexes for table `rent`

ALTER TABLE `rent`

ADD PRIMARY KEY (`flat_id`);

Indexes for table `sale`

ALTER TABLE `sale`

```
ADD PRIMARY KEY (`flat_id`);
```

Indexes for table `upcoming_projects`

```
ALTER TABLE `upcoming_projects`
ADD PRIMARY KEY (`upid`);
```

AUTO_INCREMENT for table `flat`

```
ALTER TABLE `flat`
MODIFY `flat_id` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=7;
```

AUTO_INCREMENT for table `login`

```
ALTER TABLE `login`
MODIFY `UID` int(100) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=4;
```

AUTO_INCREMENT for table `login_builder`

```
ALTER TABLE `login_builder`
MODIFY `BID` int(100) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=4;
```

AUTO_INCREMENT for table `packers_movers`

```
ALTER TABLE `packers_movers`
MODIFY `pid` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=5;
```

AUTO_INCREMENT for table `upcoming_projects`

```
ALTER TABLE `upcoming_projects`
MODIFY `upid` int(11) NOT NULL AUTO_INCREMENT;
```

Constraints for table `rent`

```
ALTER TABLE `rent`
ADD CONSTRAINT `rent_ibfk_1`
 FOREIGN KEY (`flat_id`)
 REFERENCES `flat` (`flat_id`);
```

Constraints for table `sale`

```
ALTER TABLE `sale`
ADD CONSTRAINT `sale_ibfk_1`
FOREIGN KEY (`flat_id`)
REFERENCES `flat` (`flat_id`);
```

CHAPTER 5

SOFTWARE TESTING

Unit Testing

This is lowest level of testing that is conducted to remove syntax and logic errors from a single unit. Individual components are tested to ensure that they operate correctly. Each component is tested independently, without other system components.

Module testing

A module is a collection of dependent components such as an object class, an abstract data type or some looser collection of procedures and functions. A module encapsulates related components, so can be tested without other system modules.

Sub-System testing

This phase involves for problems that arise from component interactions. This testing should begin as soon as usable versions of some of the system components are available.

System testing

The sub-systems are integrated to make up the system. The system as a complete entity is tested over her. This process is concerned with finding errors that result from unanticipated interactions between sub-systems. It is also concerned with validating that the system meets its functional and non-functional requirement and testing the emergent system properties.

Acceptance testing:

This is the final stage in the testing process before the system is accepted for operational use. The system is testes with data supplied by the system customer rather than simulated test data. Acceptance testing may reveal errors and omissions in the system requirements definition because the real data exercise the system in different ways from the test data. It may also reveal requirements problems where the system's facilities do not really meet the user's needs or the system performance is unacceptable.

CHAPTER 6

SNAPSHOTS

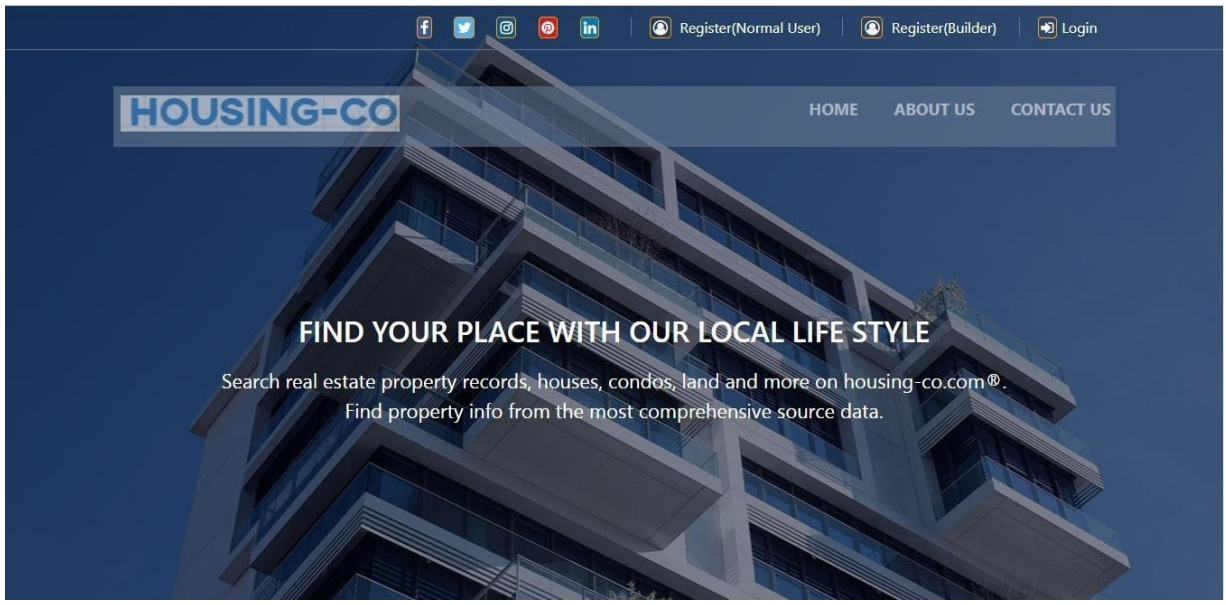

Fig 6.1 front page

The front page of the real estate website, where builder/normal user can register or login if they have already register, also about our real estate information can be seen and contact information also can be viewed.

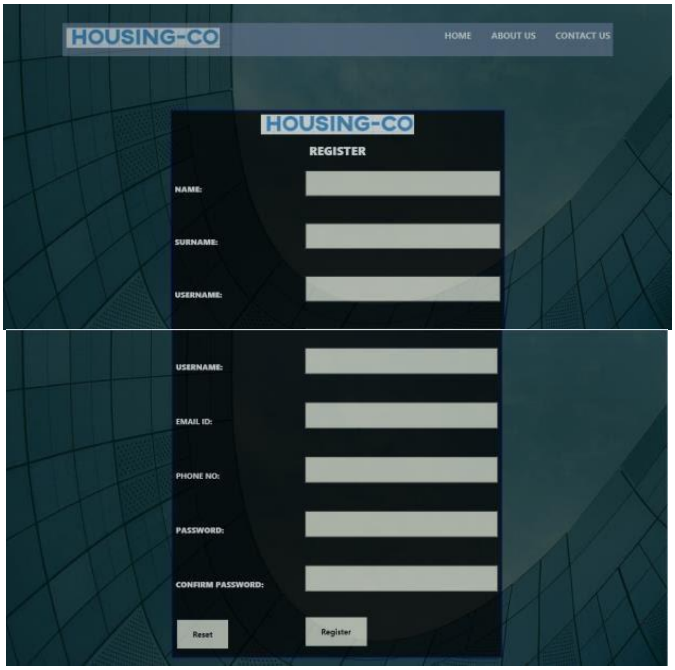

Fig 6.2 register page

The builder/Normal user can register by entering their details.

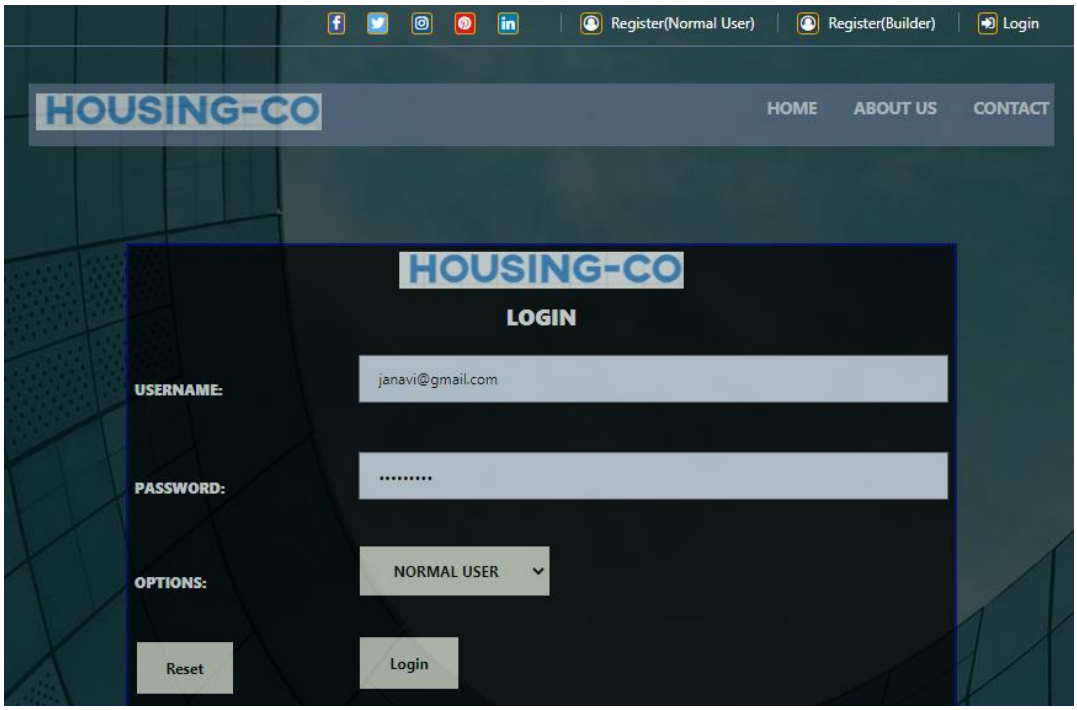

Fig 6.3 Login page

The both normal user/builder can login using their username and password.

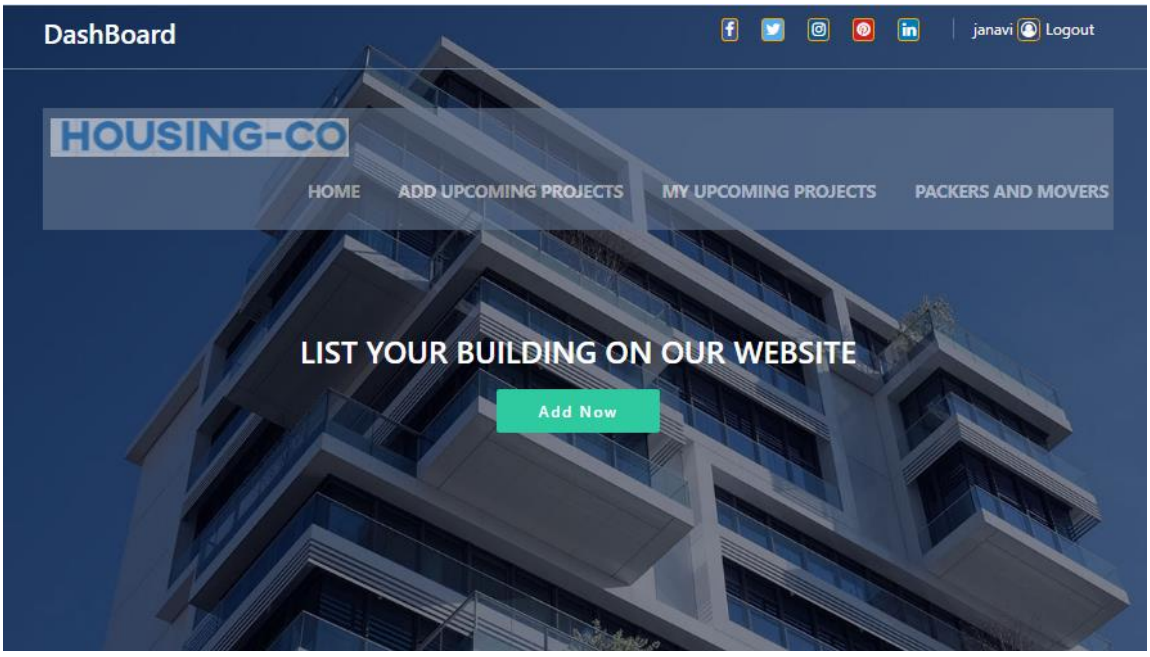

Fig 6.4 Dashboard-Builder

The dashboard of the builder where builder can add their upcoming project, check their upcoming project and also can add packers and movers details.

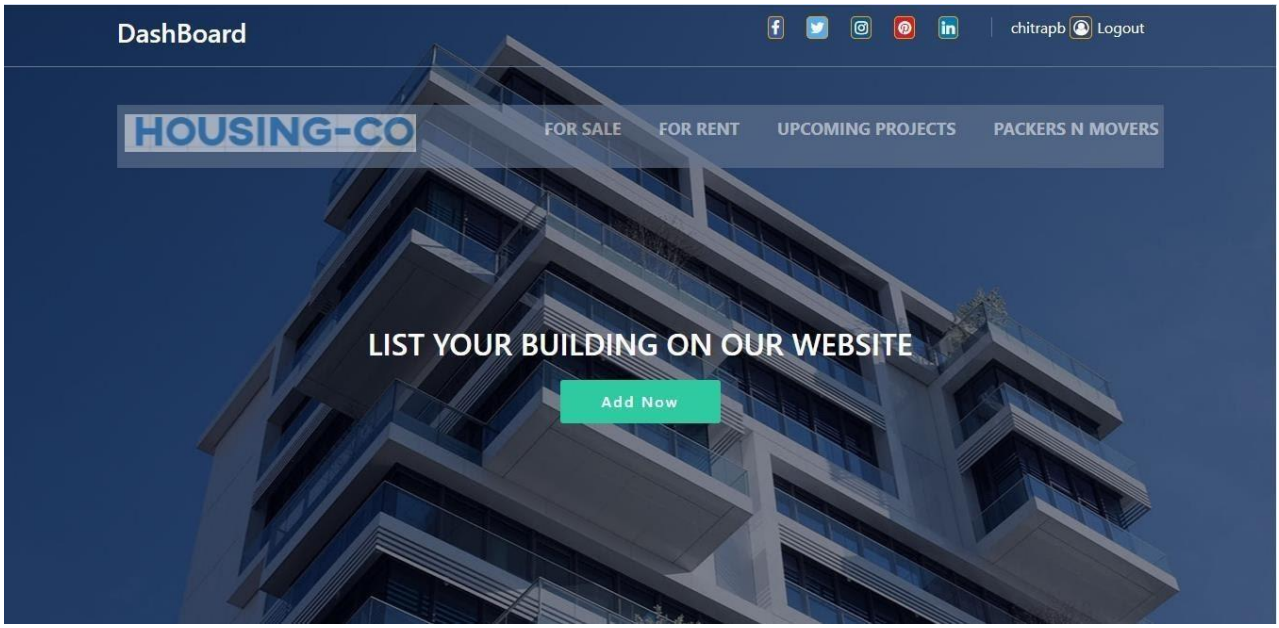

Fig 6.5 dashboard-normal user

The dashboard of the normal user, where the user can search houses for sale/rent, check upcoming project and also see the list of packers and movers.

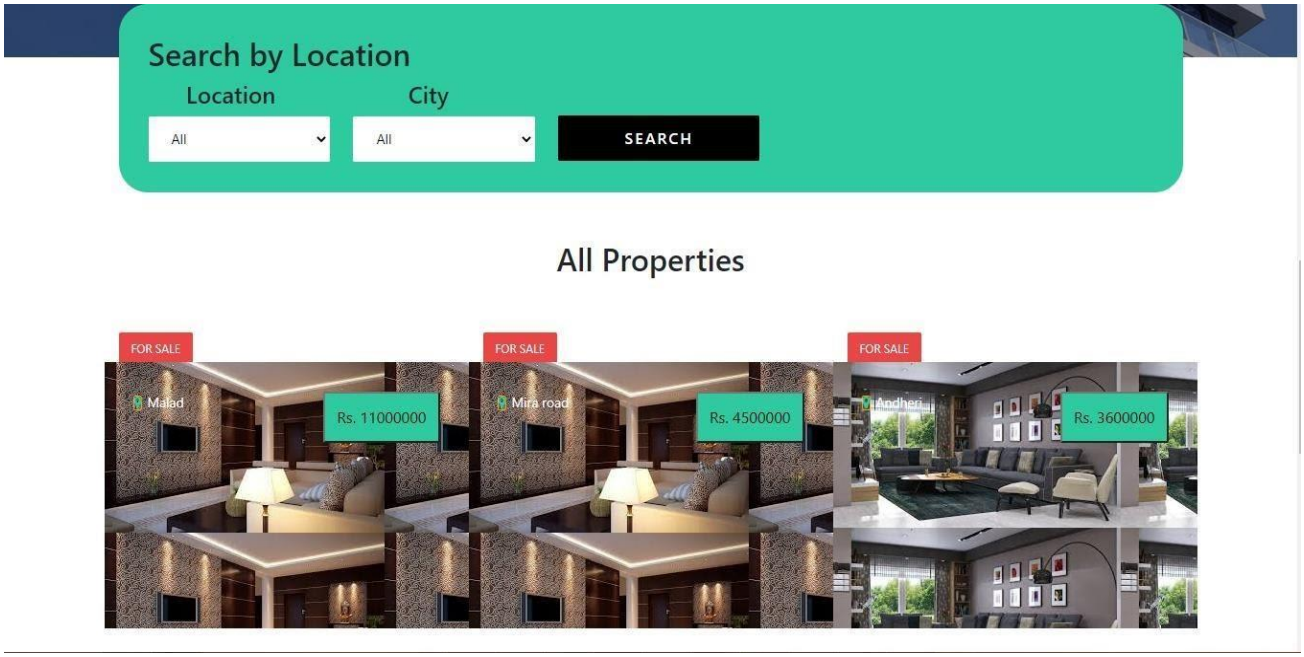

Fig 6.6 properties search

The houses which are added by the builder can be searched using the drop-down, property can be searched based on location or city

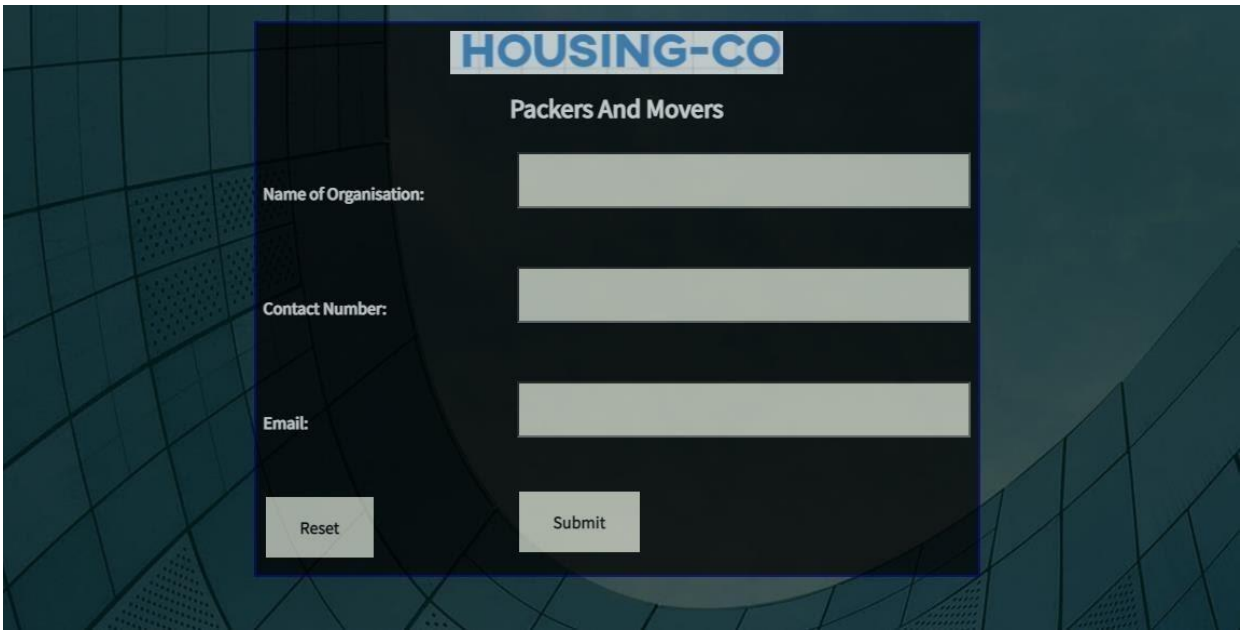

Fig 6.7 packers and movers details

The details of the packers and movers can be added by the builder login only

CONCLUSION

The main purpose to develop this real estate management system project to resolve the issue of both buyer and seller.

The seller can submit the property what he wants to sale with a full house or flat detail such as location, area, hall, kitchen, furnished, semi-furnished, price, and all facilities can list in the form of Buyer can search the property according to their budget, location then direct contact to the seller.

The project is to bring the real estate industry online and enabling real estate industry participants to benefit from the Internet. Site acts as an interface between brokers and realtors. Here the user can advertise his property for buying or for selling.

Future Enhancement

Besides, we can build XML web service programming model that enables other applications to consume real estate web services built by us using standard protocol such as HTTP, XML, and web services description language (WSDL).

This project just deals with the Home page and Search page to search for property listings, more functionality can be added for searching the agents and offices making it a complete application.

The feature of providing Google Maps within this application adds up to the functionality of the website. With the advancement of technology, dynamic maps can be generated which can help the buyer to locate a particular area where the property is located in the Google Map.

REFERENCES

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