

A
PROJECT REPORT
ON
Real Estate Website

SUBMITTED BY-

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(EXAM SEAT NO - 10011)
CLASS: MCA I YEAR

UNDER THE GUIDANCE OF
Prof. Swayam Shah

SAVITRIBAI PHULE PUNE UNIVERSITY
MASTER OF COMPUTER APPLICATION



JSPM'S
JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING
MCA DEPARTMENT
FOR ACADEMIC YEAR 2023-24



JAYAWANT SHIKSHAN PRASARAK MANDAL'S

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Dr. R.D. Kanphade
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CERTIFICATE

This is to certify that **Mr. Pushkar Chandrakant Chavan** is a bonafide student of Jayawantrao Sawant College of Engineering, Hadapsar, Pune-28, has successfully completed the Mini Project work in the Partial Fulfillment of Master of Computer Application (MCA) Program as per guidelines provided by the Savitribai Phule Pune University for Academic Year 2023-24.

Name of Project Guide
Prof. Swayam Shah

Prof. Swayam Shah
HOD

Dr. R. D. Kanphade

Internal Examiner

External Examiner

Date: / /2024

Place: Pune

Declaration

To,
The Principal,
Jayawantrao Sawant college of Engineering,
Hadapsar, Pune-28
Respected Sir,

I, **Mr. Pushkar Chandrakant Chavan** hereby declare that the Mini Project entitled “Real Estate Website” has been developed and submitted under the guidance of **Prof. Swayam Shah** is my original work.

The Project work presented here is my own work and has not been duplicated from any other sources.

Date: / /2024

Place : Pune

Yours Sincerely

Pushkar Chandrakant Chavan

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Mr. Pushkar Chandrakant Chavan

Exam Seat No :- 10011

Table of Content

Sr no.	Title	Page no.
1	Introduction 1) Problem Definition 2) System Overview 3) Definitions, Acronyms and Abbreviations 4) Project Functionalities 5) Operating Environment	6
2	Proposed System 1) Proposed System 2) Objectives of the System 3) Feasibility Study 4) User Requirement Specification	8
3	System Analysis &Design 1) Use Case Diagram 2) Class Diagram 3) Activity Diagram 4) ERD 5) Data Dictionary 6) Table Content	10
4	User Manual 1) Operational Instructions 2) Input/output Screens 3) Reports	15
5	Sample Program	18
6	System Limitation	22
7	Future Enhancement	22
8	Conclusion	23
9	Bibliography	24

1) Introduction

1.1) Problem Definition

The Project Aims To Develop A User-Friendly Real Estate Website That Simplifies Property Searches, Provides Detailed Listings, Integrates Advanced Filtering Options, And Supports Seamless Communication Between Buyers, Sellers, And Agents. It Will Enhance User Experience Through Responsive Design, Accurate Data, And Secure Transactions, Ultimately Facilitating Efficient And Informed Real Estate Decisions.

1.2) System Overview

The Real Estate Website Project Features Property Listings, Advanced Search Filters, And Interactive Maps. It Includes User Accounts For Property Management, An Admin Panel For Listing Control, And Secure Payment Integration. The Responsive Design Ensures Usability Across Devices, Enhancing User Experience And Accessibility For Buyers And Sellers.

1.3) Definitions, Acronyms and Abbreviations

This Project Involves Creating A Real Estate Website Featuring Property Listings And Market Insights. Key Elements Include A User-Friendly Interface, Advanced Search Filters, And An Integrated Map. Acronyms Like MLS (Multiple Listing Service) And API (Application Programming Interface) Are Essential, While Abbreviations Such As Sqft (Square Feet) And HOA (Homeowners Association) Are Used.

1.4) Project Functionalities

A Real Estate Website Should Offer User-Friendly Functionalities Including Advanced Search Filters (Location, Price Range, Property Type), Interactive Maps, And Virtual Tours. Users Can Create Accounts To Save Favourite Listings, Schedule Viewings, And Receive Notifications. The Site Should Enable Property Listing With Detailed Descriptions, High-Quality Images, And Contact Forms For Inquiries. Integration With Mortgage Calculators And Market Analysis Tools Enhances User Experience. Additionally, An Admin Panel For Managing Listings, User Accounts, And Site Content Is Essential. Responsive Design Ensures Accessibility Across Devices. Finally, Secure Payment Gateways Facilitate Transactions For Premium Services.

1.5) Operating Environment

The Operating Environment For A Real Estate Website Project On Windows Should Include:

- **Windows 10/11:** The Latest OS Versions For Optimal Security And Performance.
- **Web Server:** Apache Or Nginx For Handling HTTP Requests.
- **Database:** Mysql Or Postgresql For Data Storage And Retrieval.
- **Backend Framework:** PHP For Server-Side Scripting, AJAX and JQuery.
- **Frontend Framework:** HTML, CSS For Dynamic And Responsive User Interface.
- **Development Tools:** Visual Studio Code
- **Software:** XAMPP
- **Browsers:** Chrome, Firefox, Edge For Testing Cross-Browser Compatibility.

- **Hardware Requirements**

Hard Disk – 2 GB.

RAM – 1 GB.

Processor – Dual Core or Above.

Mouse.

Keyboard.

Monitor.

2) Proposed System

2.1) Proposed System

The Proposed Real Estate Website For Windows Will Feature A User-Friendly Interface Allowing Users To Search For Properties By Location, Price, And Type. It Will Include High-Quality Images, Virtual Tours, And Detailed Property Descriptions. Users Can Create Accounts To Save Favorite Listings And Receive Notifications On New Properties. Agents Can Manage Listings And Track User Inquiries Through A Dedicated Portal. The System Will Incorporate Secure Payment Processing For Deposits And Advanced Search Filters For A Personalized Experience. Integrated Mapping Tools Will Provide Neighborhood Insights, Enhancing Decision-Making For Buyers And Renters.

2.2) Objectives of System

The Primary Objectives Of The Real Estate Website Project For Windows Are To Provide A User-Friendly Platform For Property Listings And Searches, Streamline Communication Between Buyers, Sellers, And Agents, And Integrate Advanced Search Filters For Location, Price, And Property Type. The System Aims To Offer Detailed Property Information, High-Quality Images, And Virtual Tours To Enhance User Experience. Additionally, It Will Include Secure User Accounts For Managing Listings, Inquiries, And Transactions, Ensuring Data Privacy And Protection. Overall, The Project Seeks To Simplify Real Estate Transactions, Improve Market Accessibility, And Enhance User Engagement Through Intuitive Design And Robust Functionality.

2.3) Feasibility study

1. Technical Feasibility:

Creating A Real Estate Website For Windows Involves Evaluating Various Technical Aspects To Ensure The Project's Success. This Feasibility Analysis Covers Hardware And Software Requirements, Development Tools, Programming Languages, Database Management, Security, Scalability, And Integration With Existing Systems.

2. Economic Feasibility:

Economical Feasibility Of A Real Estate Website Project For Windows Involves Assessing Costs For Development, Maintenance, Hosting, And Potential Revenue Streams, Ensuring Profitability Within Budget Constraints.

3. Operational Feasibility:

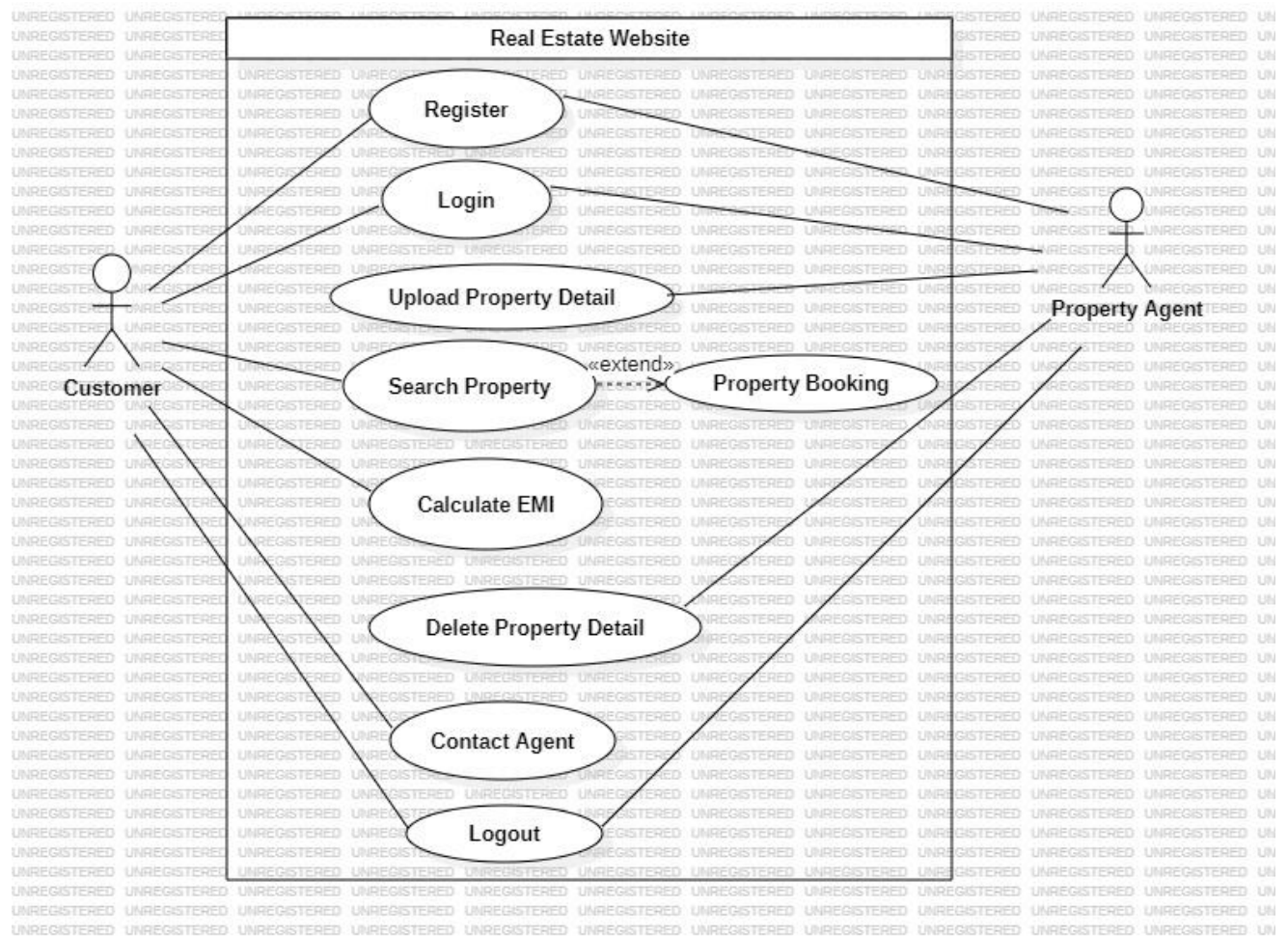
The Operational Feasibility Of A Real Estate Website Project For Windows Involves Assessing Its Practicality, Functionality, And Usability Within Windows Environments To Ensure Smooth Operations And User Satisfaction.

2.4) User Requirements Specification

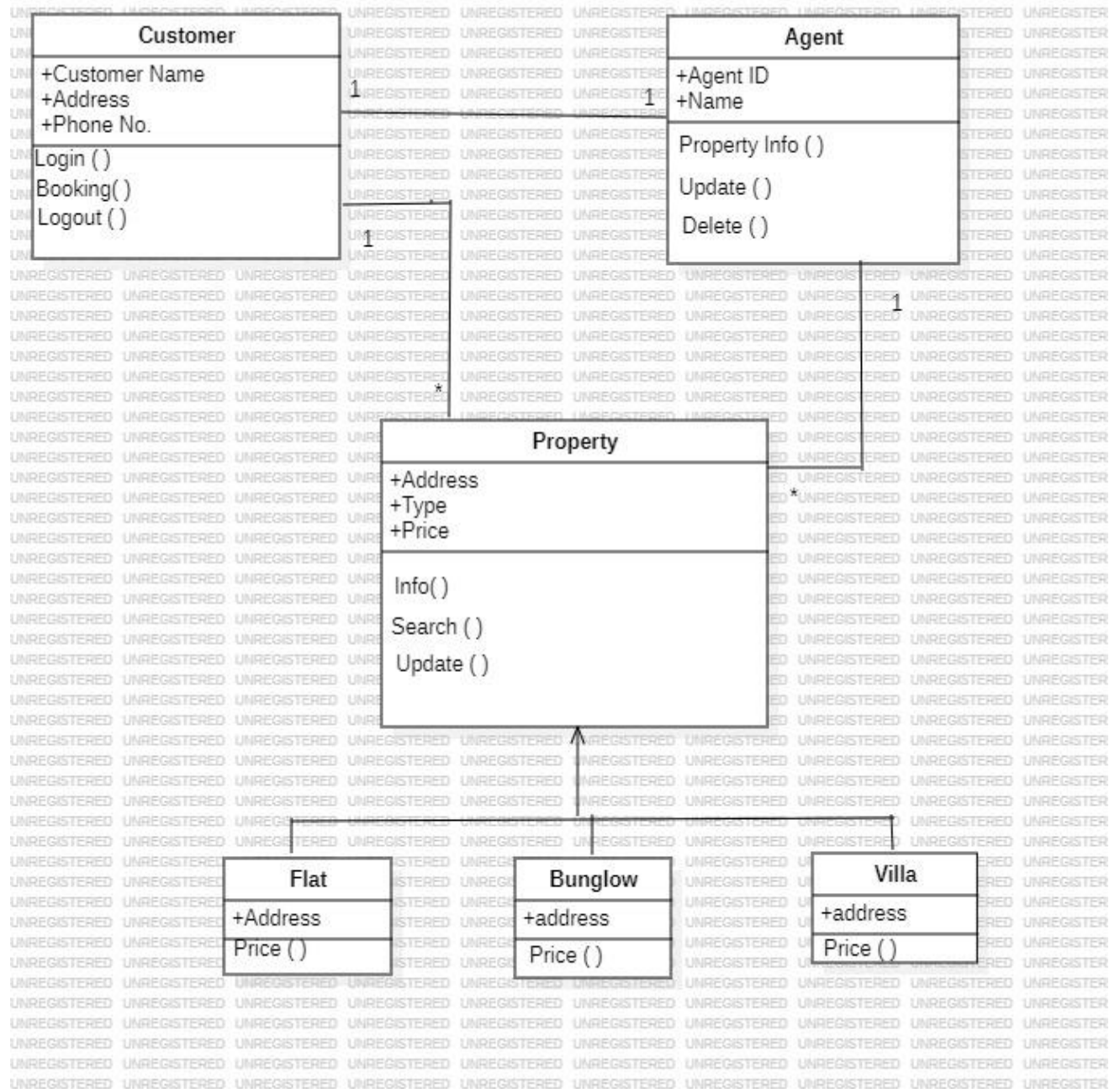
- User-Friendly Interface For Easy Navigation
- Property Search Functionality With Filters (Location, Price Range, Amenities, Etc.)
- Detailed Property Listings With Images, Descriptions, And Specifications
- Virtual Tours Or 360-Degree Views For Select Properties
- Secure User Registration And Login System
- Ability For Users To Save Favorite Properties And Compare Them
- Contact Forms For Inquiries And Scheduling Viewings
- Integration With Mapping Services For Location Visualization
- Mobile Responsiveness For Access On Various Devices
- Admin Panel For Managing Listings, Users, And Inquiries
- SEO Optimization For Better Visibility In Search Engines

3) System Analysis & Design

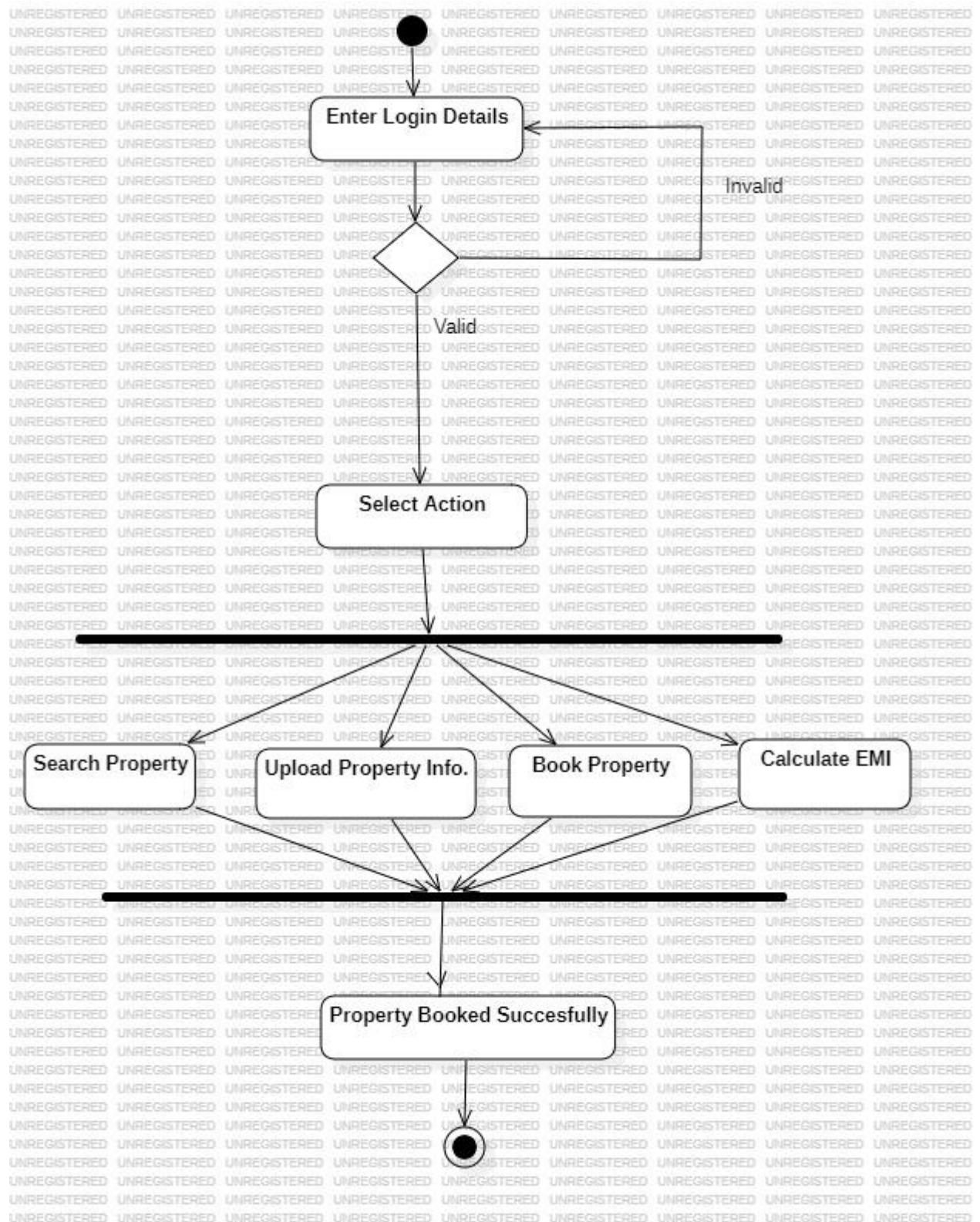
3.1) Use Case Design



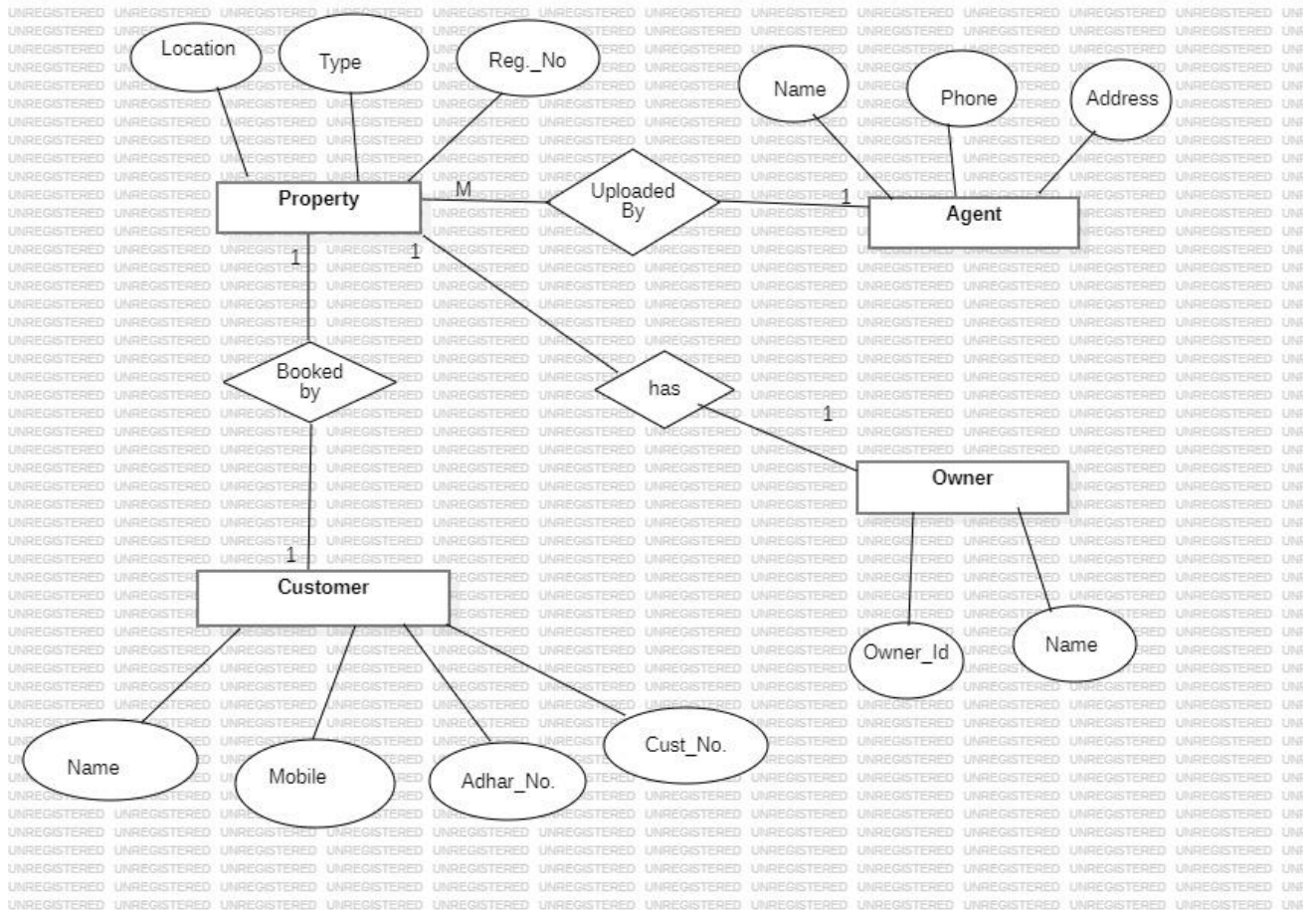
3.2) Class Diagram



3.3) Activity Diagram



3.4) ERD



3.5) Data Dictionary:

Record Id	INT	Unique Identifier For The Record
Agentid	INT	Unique Identifier For The Agent
Agentname	VARCHAR(50)	Name Of The Real Estate Agent
Agentphone	VARCHAR(15)	Phone Number Of The Agent
Userid	INT	Unique Identifier For The User
Username	VARCHAR(50)	Name Of The User
Useremail	VARCHAR(50)	Email Address Of The User
Propertyid	INT	Unique Identifier For The Property
Propertyaddress	VARCHAR(100)	Address Of The Property
Propertytype	VARCHAR(20)	Type Of Property (E.G., House, Apartment)
Propertyprice	DECIMAL(10, 2)	Price Of The Property
Propertystatus	VARCHAR(20)	Status Of The Property (E.G., Available, Sold)
Listingdate	DATE	Date The Property Was Listed

3.6) Table Content:

User Detail Table:

User_Id	INT	PRIMARY KEY	Unique identifier for the user
First_Name	VARCHAR(50)	NOT NULL	First name of the user
Last_Name	VARCHAR(50)	NOT NULL	Last name of the user
Email	VARCHAR(100)	NOT NULL, UNIQUE	Email address of the user
Phone_Number	VARCHAR(15)	NULL	Phone number of the user

Agent Table:

Agent_id	INT	PRIMARY KEY	Unique identifier for the agent
First_Name	VARCHAR(50)	NOT NULL	First name of the agent
Last_Name	VARCHAR(50)	NOT NULL	Last name of the agent
Email	VARCHAR(100)	NOT NULL, UNIQUE	Email address of the agent
Phone_Number	VARCHAR(15)	NOT NULL	Phone number of the agent

Transaction Table:

Property_id	INT	PRIMARY KEY	Unique identifier for the property
Agent_Id	INT	NOT NULL, FOREIGN KEY (agent_id) REFERENCES Agent(agent_id)	Agent responsible for the property
User_Id	INT	NULL, FOREIGN KEY (user_id) REFERENCES User(user_id)	Owner of the property

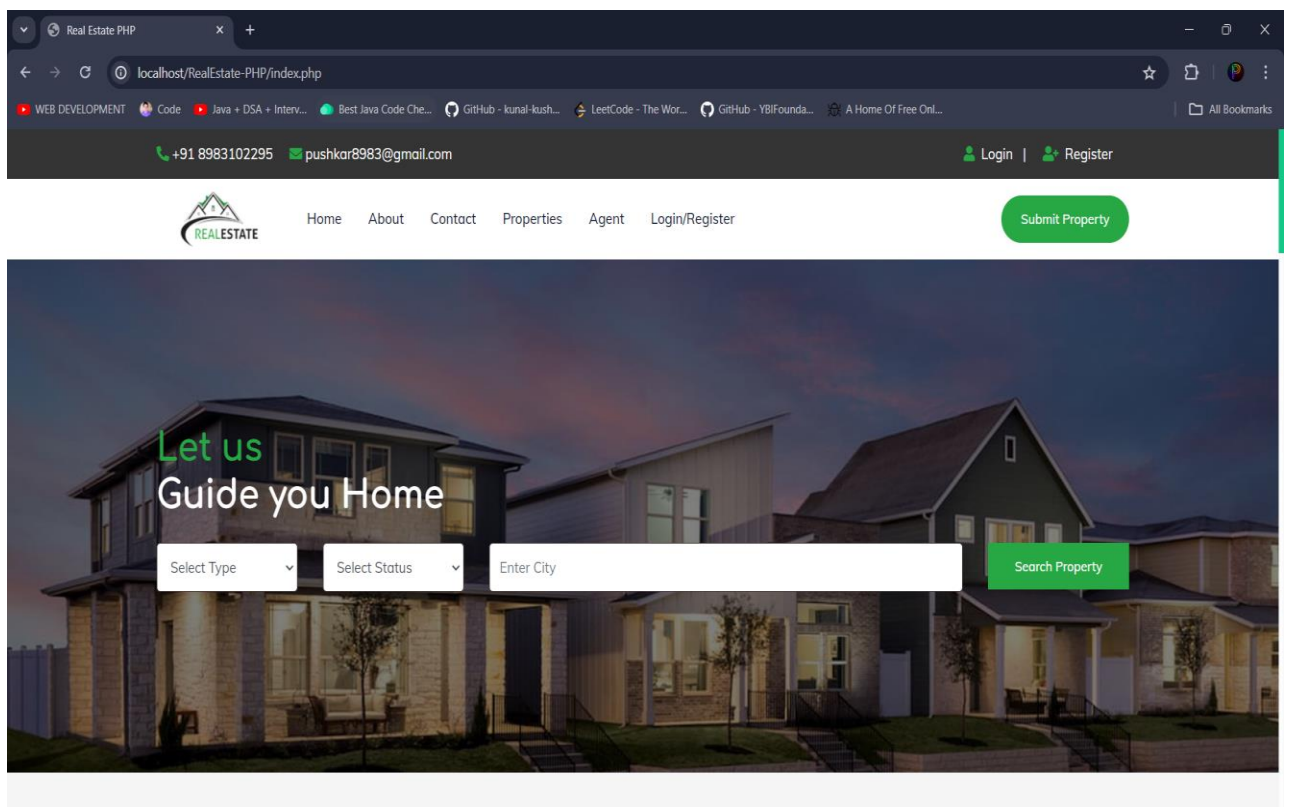
4) User Manual

4.1) Operational Functions:

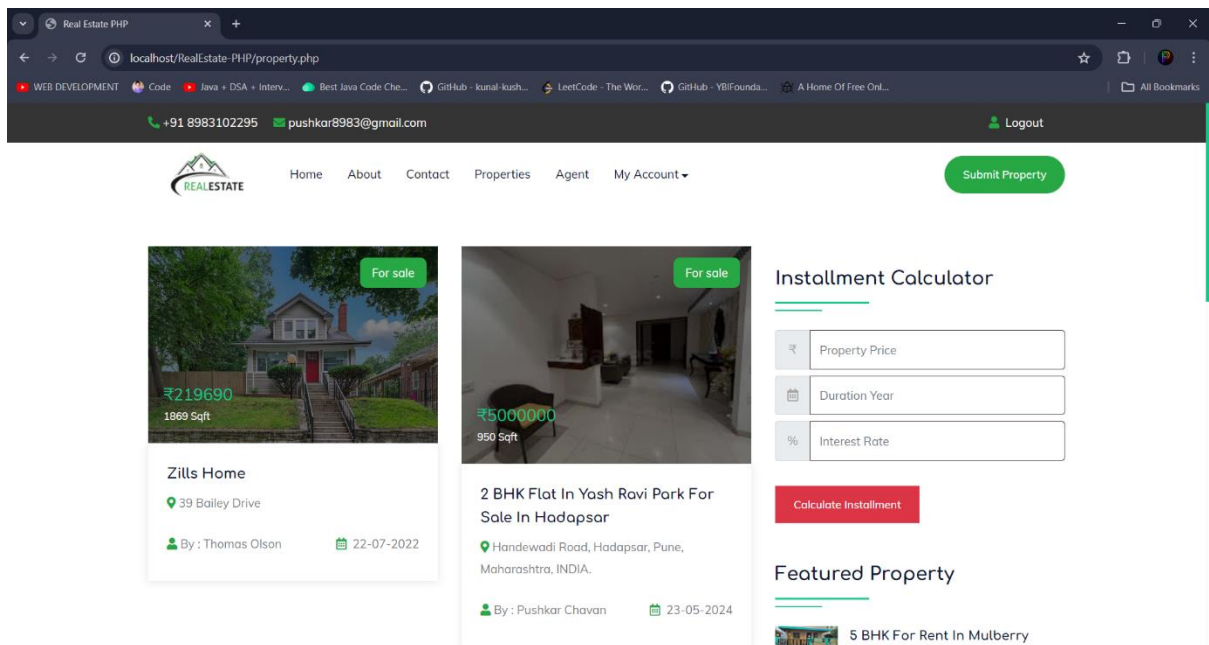
Operational Functions On A Real Estate Website Include Agent, User, And Property Detail Management. Agents Can List Properties, Update Details, And Communicate With Users. Users Can Search, View, And Inquire About Properties. Property Details Include Address, Type, Price, Status, And Listing Date, Facilitating Effective Transactions.

4.2) Input Output Screens

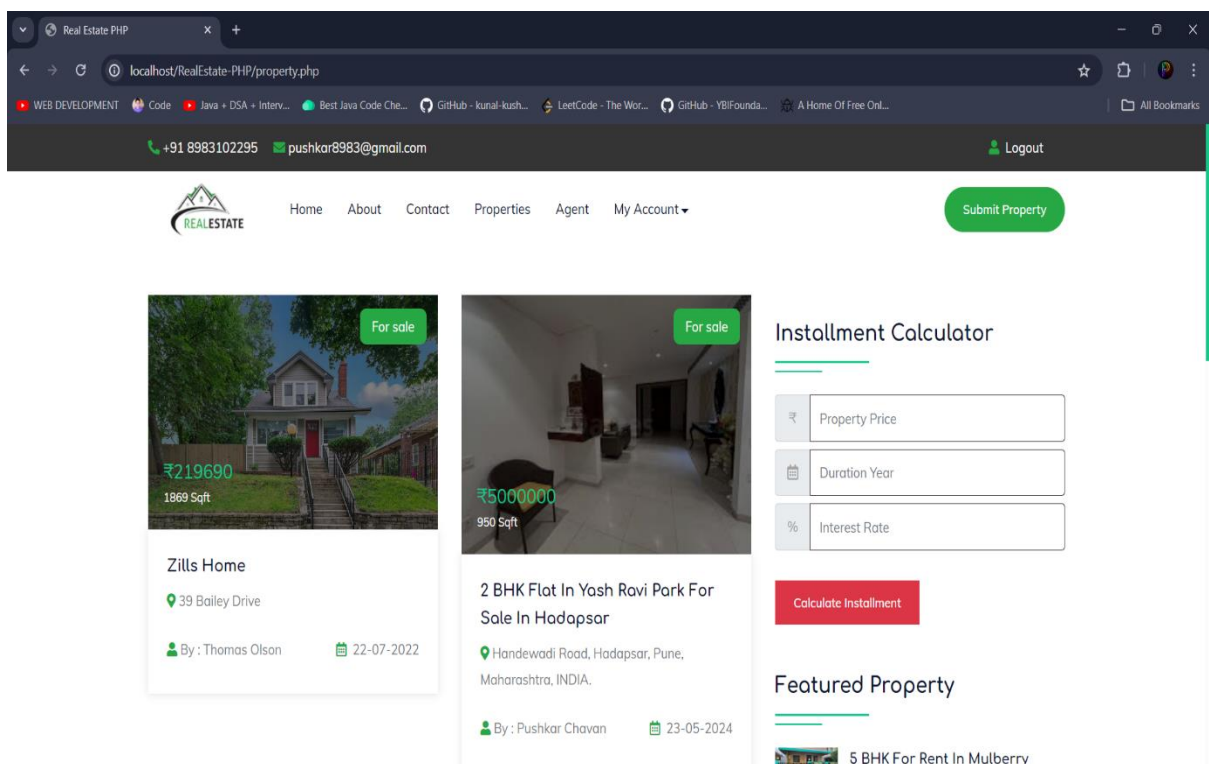
Home Screen:



Property Screen:



Installment Calculator:



Feedback Screen:

The screenshot shows a web browser window with the URL `localhost/RealEstate-PHP/contact.php`. The page has a dark header with the site name "Real Estate PHP" and navigation links: Home, About, Contact, Properties, Agent, and Login/Register. A green "Submit Property" button is in the top right. The main content area is divided into two sections. On the left, a dark sidebar titled "Contacts" lists the address (Hadapsar, Pune), phone number (+91 8983102295), and email address (helpine@realestatest.com). On the right, a section titled "Get In Touch" contains a form with four input fields: "Your Name*", "Email Address*", "Phone", and "Subject". Below these is a larger text area for "Type Comments...". A green "Send Message" button is at the bottom of the form.

Login Screen:

The screenshot shows a web browser window with the URL `localhost/RealEstate-PHP/login.php`. The page has a dark header with the site name "Real Estate PHP" and navigation links: Home, About, Contact, Properties, Agent, and My Account. A green "Submit Property" button is in the top right. The main content area is a light gray background with a white login form in the center. The form is titled "Login" and has the subtitle "Access to our dashboard". It contains two input fields: "Your Email*" and "Your Password". Below these is a green "Login" button. Underneath the button is a horizontal line with the text "OR" in the center. At the bottom of the form, it says "Don't have an account? Register".

Sample Program :

```
<header id="header" class="transparent-header-modern fixed-header-bg-white w-100">
<div class="top-header bg-secondary">
<div class="container">
<div class="row">
<div class="col-md-8">
<ul class="top-contact list-text-white d-table">
<li><a href="#"><i class="fas fa-phone-alt text-success mr-1"></i>+91
8983102295</a></li>
<li><a href="#"><i class="fas fa-envelope text-success mr-1"></i>pushkar8983@gmail.com</a></li>
</ul>
</div>
<div class="col-md-4">
<div class="top-contact float-right">
<ul class="list-text-white d-table">
<li><i class="fas fa-user text-success mr-1"></i>
<?php if(isset($_SESSION['uemail']))
{ ?>
<a href="logout.php">Logout</a>&nbsp;&nbsp;&nbsp;<?php } else { ?>
<a href="login.php">Login</a>&nbsp;&nbsp;&nbsp;
| </li>
<li><i class="fas fa-user-plus text-success mr-1"></i><a href="register.php">
Register</li><?php } ?>
</ul>
</div>
</div>
</div>
</div>
</div>
```

```

</div>

<div class="main-nav secondary-nav hover-success-nav py-2">

<div class="container">

<div class="row">

<div class="col-lg-12">

<nav class="navbar navbar-expand-lg navbar-light p-0"> <a class="navbar-brand
position-relative" href="index.php"></a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation"> <span class="navbar-toggler-
icon"></span> </button>

<div class="collapse navbar-collapse" id="navbarSupportedContent">

<ul class="navbar-nav mr-auto">

<li class="nav-item dropdown"> <a class="nav-link" href="index.php"
role="button" aria-haspopup="true" aria-expanded="false">Home</a></li>

<li class="nav-item"> <a class="nav-link" href="about.php">About</a> </li>

<li class="nav-item"> <a class="nav-link" href="contact.php">Contact</a> </li>

<li class="nav-item"> <a class="nav-link" href="property.php">Properties</a>
</li>

<li class="nav-item"> <a class="nav-link" href="agent.php">Agent</a> </li>

<?php if(isset($_SESSION['uemail']))
{ ?>

<li class="nav-item dropdown">

<a class="nav-link dropdown-toggle" href="#" role="button" data-
toggle="dropdown" aria-haspopup="true" aria-expanded="false">My Account</a>

<ul class="dropdown-menu">

<li class="nav-item"> <a class="nav-link" href="profile.php">Profile</a> </li>

```

```

<li class="nav-item"> <a class="nav-link" href="feature.php">Your Property</a>
</li>

<li class="nav-item"> <a class="nav-link" href="logout.php">Logout</a> </li>
</ul>

</li>

<?php } else { ?>

<li class="nav-item"> <a class="nav-link" href="login.php">Login/Register</a>
</li>

<?php } ?>

</ul>


<a class="btn btn-success d-none d-xl-block" style="border-radius:30px;"
href="submitproperty.php">Submit Peoperty</a>

</div>

</nav>

</div>

</div>

</div>

</div>

</div>

</header>

```

4.3) Report

Our Real Estate Website Seamlessly Integrates Agent, User, And Property Details To Provide A Comprehensive Platform For All Your Real Estate Needs.

Agent Details:

Our Website Features A Diverse Array Of Experienced Real Estate Agents, Each Equipped With Detailed Profiles Including Their Unique Agentid, Name, And Contact Information. This Transparency Ensures Users Can Easily Reach Out To Agents Who Best Match Their Specific Property Requirements.

User Details:

Users On Our Platform Benefit From Personalized Accounts Where Their Unique Userid, Name, And Contact Information, Such As Email, Are Securely Stored. This Allows For A Tailored Experience, Enabling Users To Track Their Favorite Properties, Save Searches, And Directly Communicate With Agents.

Property Details:

The Heart Of Our Platform Is Its Extensive Property Listings. Each Property Has A Distinct Propertyid, Comprehensive Address, Type (House, Apartment, Or Condo), And Current Market Status (Available Or Sold). Detailed Property Information, Including Pricing And Listing Dates, Is Provided To Help Users Make Informed Decisions.

Integrated Experience:

By Amalgamating Agent, User, And Property Details, Our Website Delivers An Integrated Real Estate Experience. Users Can Easily Find Properties That Match Their Criteria, Connect With Agents, And Navigate The Buying Or Renting Process Smoothly. Our Robust Database Ensures All Information Is Up-To-Date And Accessible, Fostering A Reliable And Efficient Real Estate Marketplace.

5) System Limitations

The Real Estate Website Faces Several System Limitations Impacting Agents, Users, And Property Details. First, The Database Architecture Is A Single Unified Table, Which Can Lead To Inefficiencies And Slow Query Performance As Data Volume Grows. Second, Limited Data Validation And Integrity Checks May Result In Inaccurate Or Inconsistent Data Entry, Such As Incorrect Property Prices Or Duplicate User Records. Third, The Website Lacks Advanced Search And Filtering Options, Making It Difficult For Users To Find Properties That Meet Specific Criteria. Fourth, There Is No Automated Notification System For Agents And Users About Property Status Changes Or New Listings. Additionally, The Website Does Not Support Multimedia Uploads, Such As Property Photos And Videos, Which Are Crucial For Real Estate Marketing. Finally, Security Measures Are Minimal, Raising Concerns About Data Breaches And Unauthorized Access To Sensitive Information Like User Contact Details And Transaction Histories. Addressing These Limitations Is Essential For Enhancing Functionality, User Experience, And Data Security.

6) Future Enhancement

Some Potential Future Enhancements For The Real Estate Website:

1. **Advanced Search Filters:** Introduce More Granular Search Filters Such As Property Amenities, School Districts, And Commute Times To Enhance User Experience.
2. **Virtual Tours:** Implement 3d Virtual Tours And Video Walkthroughs For Properties To Allow Users To Explore Listings Remotely.
3. **Agent Reviews:** Add A Review And Rating System For Agents To Help Users Choose The Best Agent For Their Needs.
4. **Ai-Powered Recommendations:** Use Ai To Suggest Properties Based On User Preferences And Browsing History.
5. **Mobile App:** Develop A Mobile Application For Seamless Property Browsing And Agent Contact On-The-Go.
6. **Enhanced Security:** Integrate Advanced Security Features For User And Agent Data Protection.

7) Conclusion

In Conclusion, The Integration Of Agent, User, And Property Details Within A Real Estate Website Offers A Comprehensive Platform For Seamless Transactions And Enhanced User Experiences. By Amalgamating Agent Information Such As Names And Contact Details, User Profiles Including Names And Email Addresses, And Property Specifics Like Addresses, Types, Prices, And Statuses, The Website Becomes A Centralized Hub For Efficient Property Dealings.

This Consolidation Fosters Convenience For Users Seeking Properties And Facilitates Effective Communication Between Agents And Clients. Moreover, It Streamlines The Browsing Process, Enabling Users To Effortlessly Navigate Through Available Listings And Make Informed Decisions Based On Their Preferences And Requirements.

Through This Cohesive Approach, The Real Estate Website Optimizes The Property Search Journey, Ensuring Transparency, Reliability, And Accessibility For All Stakeholders Involved. Whether Agents Are Managing Listings, Users Are Exploring Properties, Or Transactions Are Being Conducted, The Platform Serves As A Reliable Conduit For Facilitating Successful Real Estate Transactions.

In Essence, The Integration Of Agent, User, And Property Details Within The Real Estate Website Embodies A Commitment To Efficiency, Transparency, And User Satisfaction, Ultimately Enhancing The Overall Experience And Fostering Trust Within The Real Estate Ecosystem.

8) Bibliography

- “IEEE Standards for Software Development”
- www.coursera.org
- www.Drawio.com
- “Introduction to Software Engineering” by Sommer Ville
- www.youtube.com
- www.google.com
- Star uml diagrams
- www.geeksforgeeks.org