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Real Estate Management System

Gopichand.R , Dr. M. Rathi

Student, Department of Computer Technology, Dr. N. G. P. Arts and Science College, Coimbatore, India

Professor and Head, Department of Computer Technology, Dr. N. G. P. Arts and Science College, Coimbatore, India

ABSTARCT: Real Estate Management System – is an Estate Agent and Property Management System is a user friendly contact and property manager for real estate professionals. Save time and sell more by empowering to easily keep track of leads, manage listings, and market to new prospects. Real Estate Management System is complete end to end solution to cover all aspects of Estate Agent day to day activity and Property buying selling procedure for small and large organization. The basic objective of developing this project is Maintain client details line contact details, required property details, client type like residential and commercial client. Price limit. Preference. Maintain property details, registration of property for sale includes property address, property description, price, facilities available. Store property floor plan, property documents. Creation of thumbnail of property images for brochure System has powerful logical access management in place, each user must be identified by login id and strict password policy is applied to secure the system. The platform allows sellers to register properties with detailed descriptions and multimedia, while buyers can search, filter, and inquire about available listings based on preferences such as location, price, and type. Administrators manage users, property approvals, feedback, and overall platform integrity. Built using PHP for backend logic and MySQL for database storage, the system features a secure, user-friendly interface developed with HTML, CSS, JavaScript, and Bootstrap.

I. INTRODUCTION

The Admin user can change the update the information regarding property selling and buying and cancellation. The system is very useful for the companies who developed apartments, hotels, villa, residential properties and commercial properties. Companies or individual agents can also advertise their property. The real of World Wide Web have spread across millions of household, so naturally, Internet has become by far the best platform for real estate marketing today. Now days when everything is online, how is it possible that real estate left web application behind. There are lots of real estate companies who advertise their property online so idea behind developing this application is that their property can also sell, or buy rental property using this.

These applications are not widely popular but in future, they have large scope of growth. This website is a online real estate management through which individual agents or buyer can maintain their property document keeping and managing property registration and also access its information and manage all the adding, updating, deleting the as and some of its tasks. The Admin user can inform their agents for regarding to property and update the information regarding property and cancellation of property buyer choice. The system is very useful for the companies or builders that can post and edit their properties and their personal info and admin can monitor records of all of them. The system is also useful which also keeps track of Account details of buyers and Investors and also RES Indus.

The system should have a login. A login box should appear when the system is invoked. The Admin should have all the type of authority .The Admin should maintain property .Admin identify property type as it is residential or commercial property. The Admin user can inform their agents for regarding to property and update the information regarding property and cancellation of property or changing buyer choice. The user should book the property for sell or rent with detail of property. The system is very useful for the companies or builders that can post and edit their properties and their personal info and admin can monitor records of all of them. The system is also useful which also keeps track of Account details of buyers and Investors and also RES Industry.

II. LITERATURE REVIEW

The real estate industry has seen a transformative shift from manual property listings to integrated, web-based management systems. Several studies and implementations show the necessity of streamlining real estate operations using digital platforms. According to Welling and Thomson (2009), the use of PHP and MySQL enables scalable and dynamic systems suitable for managing property data, user profiles, and transactional records. This project builds on those studies to develop a web-based system specifically for localized real estate transactions with enhanced admin control and user communication.

III. EXISTING SYSTEM

The current real estate process in many organizations is predominantly manual, relying heavily on paper-based records, spreadsheets, or static websites for listing properties. These systems often lack automation, resulting in repetitive data entry, slower workflows, and higher chances of human error. Property listings are not updated in real-time, which can lead to confusion among buyers when a listed property is no longer available. Communication between buyers and sellers is usually done through emails or phone calls, making it difficult to track enquiries and follow-ups. Additionally, most of these systems do not support role-based access, meaning that different types of users (buyers, sellers, or administrators) do not have customized interfaces or controls suited to their roles. There is also minimal or no integration between modules such as feedback, enquiries, and property status updates, leading to inefficient and fragmented workflows.

IV. METHODOLOGY

The development of the Real Estate Management System followed a structured, step-by-step approach based on the Waterfall methodology, which ensures each phase is completed before moving to the next. Initially, a comprehensive requirement analysis was conducted by gathering inputs from stakeholders, reviewing similar platforms, and identifying the core needs of users such as administrators, buyers, and sellers. Once requirements were defined, the system design phase involved the creation of Data Flow Diagrams (DFDs), Entity Relationship Diagrams (ERDs), and a well-normalized database schema to map out the entire system structure. During the implementation phase, the backend was developed using PHP, with MySQL as the database engine, and the frontend interface was built using HTML, CSS, JavaScript, and Bootstrap to ensure a responsive user experience.

V. SYSTEM ARCHITECTURE

The architecture of the Real Estate Management System is based on a three-tier model:
1. Presentation Layer (Frontend)
- Provides the user interface for Buyers, Sellers, and Admins.
- Includes property search, registration/login, dashboard, and review submission.
- Technologies: HTML5, CSS3, JavaScript, Bootstrap
2. Application Layer (Business Logic)
- Handles user authentication, data processing, form validation, and session control.
- Routes user actions to appropriate database queries or updates.
- Built using: PHP
3. Data Layer (Database)
- Stores persistent data including:
- tbluser (Admin, Buyer, Seller information)
- tblproperty (Property details)
- tblfeedback (User reviews)
- tblenquiry (User enquiries and messages)

VI. DEVELOPMENT TOOLS AND ENVIRONMENT

- Processor : Any processor after Pentium4.
- RAM : 2GB
- Hard disk drive : 40GB TO 80GB
- Processor Speed : 2.0 GHz
- Version : Windows XP or later
- Operating System : Windows 10 / Linux
- Front-End : HTML, CSS, JavaScript
- Data Management : Local Storage (Browser-based)
- Export Feature : CSV file format (Excel-compitable)
- Development Tools : Visual Studio Code, Excel

VII. SYSTEM MODULES

The system was developed modularly with the following key components:

1. User Management Module

The User Management Module is responsible for handling user authentication and role-based access control within the system.

It supports user registration for different roles such as buyer, seller, and admin. Upon signing up, users are required to provide valid credentials which are verified and stored securely in the database.

2. Property Management Module

This module is central to the system, allowing sellers to add, update, and delete property listings. Each listing includes detailed attributes such as property type, location, price, images, and descriptions.

Properties are categorized and searchable by buyers using filters like price range, location, or property type.

3. Enquiry Module

The Enquiry Module facilitates communication between buyers and sellers. It allows buyers to send direct messages or enquiries regarding specific properties through structured forms.

These messages are stored in the system and can be accessed by sellers through their dashboard.

4. Feedback Module

The Feedback Module allows users, especially buyers, to leave feedback and reviews on their experiences with properties, sellers, or the platform itself.

This promotes trust among users and helps future buyers make informed decisions.

5. Admin Control Module

The Admin Module provides complete administrative control over the entire system.

Admins can manage all user accounts, approve or reject property listings, moderate feedback, and monitor user activity.

6. Reporting and Analytics Module

This module generates real-time reports for administrators on property trends, user activity, and system performance.

It helps in identifying high-demand locations, most active users, and frequently searched categories.

VIII. TESTING STRATEGY

Unit Testing: This is the lowest level of testing that is conducted to remove syntax & logic errors from a single unit.

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 & functions.

Sub-System testing: This phase involves testing collections of modules, which have been integrated into sub-systems.

System testing: The sub-systems are integrated to make up the system. The system as a complete entity is tested over here.
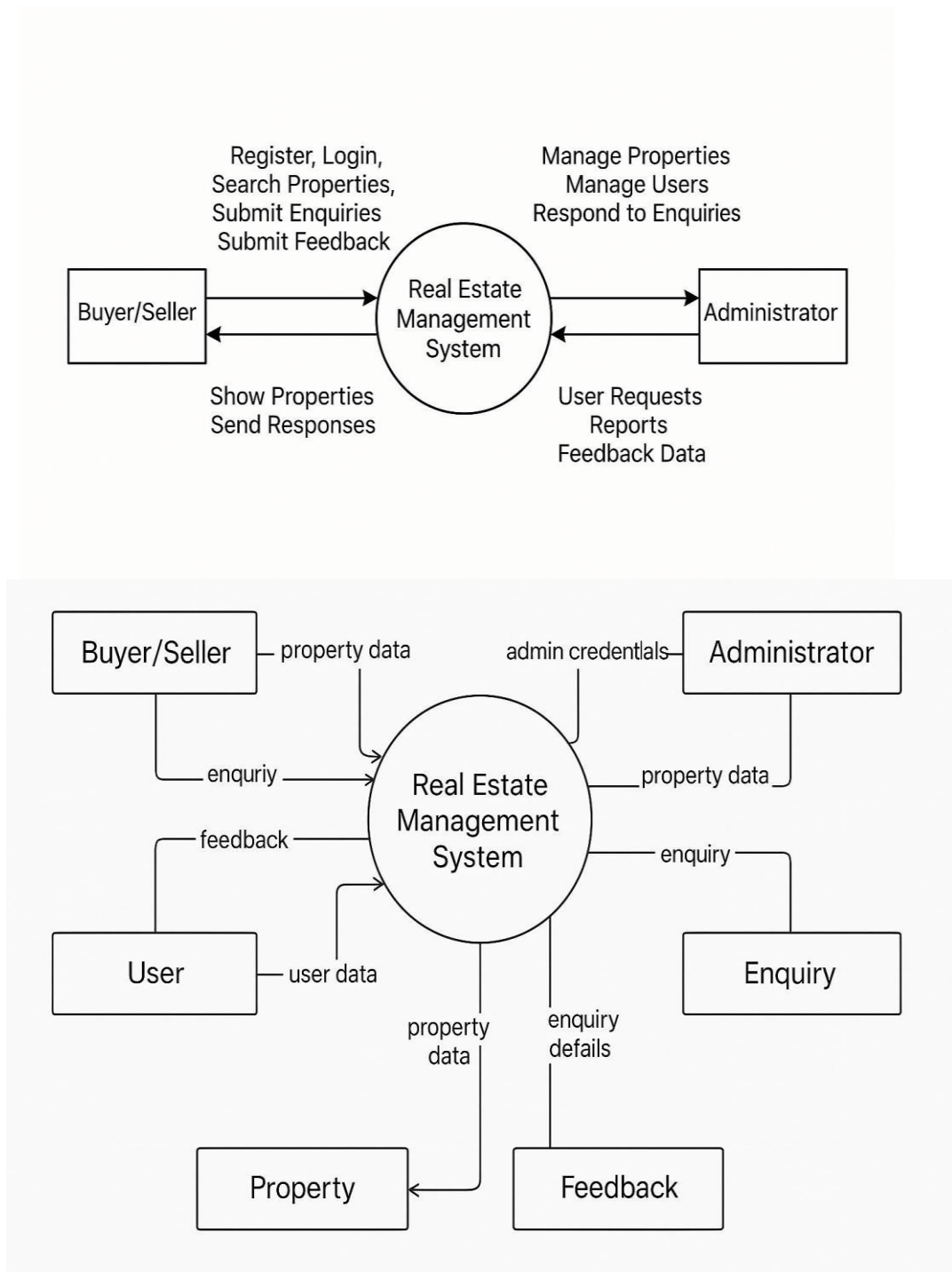
Acceptance testing: This is the final stage in the testing process before the system is accepted for operational use.
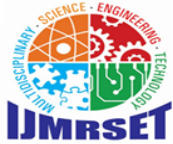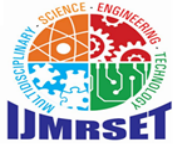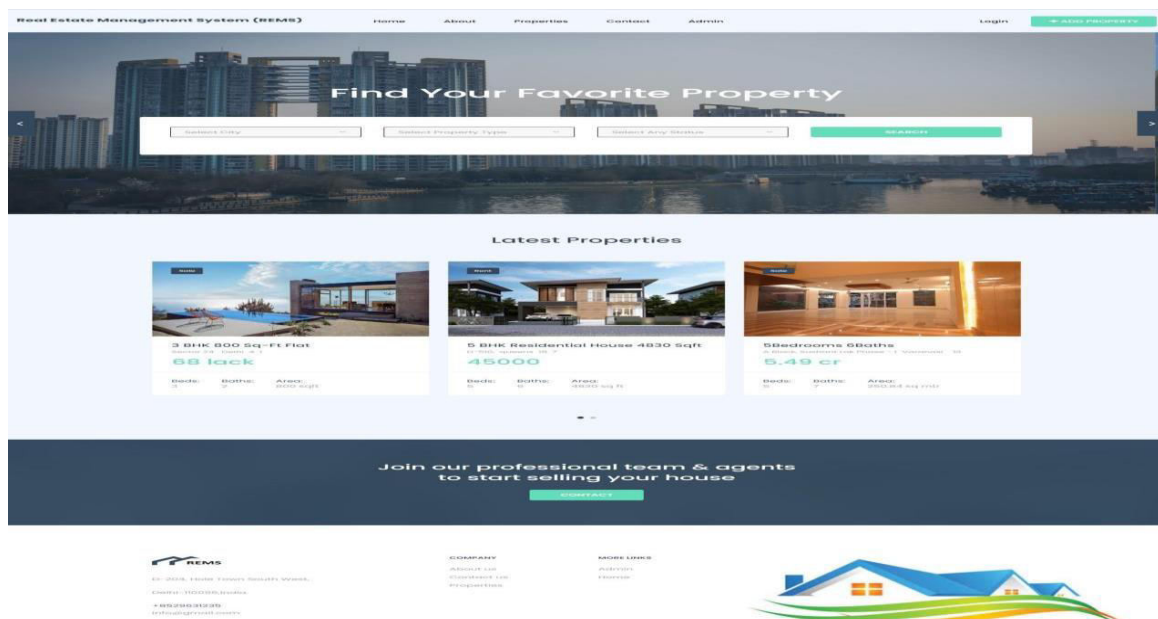
Data Flow Diagram:
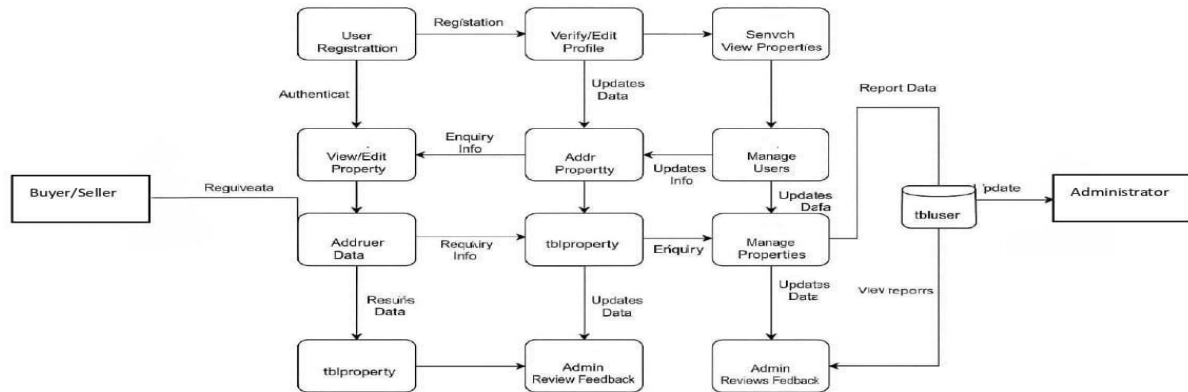
The DFD takes an input-process-output view of a system i.e. data objects flow into the software, are transformed by processing elements, and resultant data objects flow out of the software.

Data objects represented by labeled arrows and transformation are represented by circles also called as bubbles. DFD is presented in a hierarchical fashion i.e., the first data flow model represents the system as a whole. Subsequent DFD refine the context diagram (level 0 DFD), providing increasing details with each subsequent level.

The DFD enables the software engineer to develop models of the information domain & functional domain at the same time. As the DFD is refined into greater levels of details, the analyst performs an implicit functional decomposition of the system. At the same time, the DFD refinement results in a corresponding refinement of the data as it moves through the process that embody the applications.

VIII. OUTPUT

Broker/Owner Panel HomePage

Signup Page

Login Page

Admin Panel
Login Page

Dashboard

User Panel Signup

Login

IX. CONCLUSION

The Real Estate Management System was successfully designed and developed to provide a user-friendly and efficient platform for managing property listings, user accounts, enquiries, and feedback. This system bridges the gap between buyers and sellers by offering a centralized digital solution where users can register, browse properties, inquire about listings, and receive prompt responses from administrators or property owners. The implementation of this system has not only streamlined real estate operations but also reduced manual effort and improved the speed and reliability of transactions. It provides a structured database, secure login system, and an easy-to-use interface that caters to both technical and non-technical users. Admins now have complete control over user management, property listings, and customer support, enhancing the overall operational efficiency. In conclusion, the Real Estate Management System delivers a complete, secure, and scalable solution that addresses the core needs of real estate businesses.

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