IJIREEICE ISSN (O) 2321-2004, ISSN (P) 2321-5526

International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering

Impact Factor 8.021 ⁜ Peer-reviewed & Refereed journal ⁜ Vol. 13, Issue 4, April 2025

DOI: 10.17148/IJIREEICE.2025.13428

GREENARY ACRES SALES AND FARMER HIRING PORTAL

Vishal N[1], Mrs. Vishnu Priya S[2]

Student, Dept of computer Science with Cognitive Systems, Dr. N.G.P Arts and Science college, Coimbatore, India[1]

Assistant Professor, Dept of computer Science with Cognitive Systems, Dr. N.G.P Arts and Science College, Coimbatore, India[2]

Abstract: The agricultural real estate sector is also evolving with the increasing reliance on digital platforms. This paper presents "Greenary Acres Sales and Farmer Hiring Portal" a web-based system designed to enhance farm property transactions, workforce hiring, and agricultural business management. The platform streamlines real estate activities such as property listing, buying, renting, and workforce recruitment, ensuring transparency and efficiency. The system addresses existing challenges in real estate platforms by integrating farmer-specific requirements, secure transactions, and digital hiring processes.

1. INTRODUCTION

1.1 Project Purpose

The Greenary Acres platform is designed to address the inefficiencies of traditional agricultural real estate and workforce management. It acts as an online marketplace that enables users to list, update, and manage farmland properties for sale, lease, or investment. Facilitate direct hiring of farm labour based on experience and availability. Automate payroll processing for hired farmworkers. Ensure transparency in transactions through secure digital payment integration. Enhance communication between farmers, buyers, and workers using real-time messaging. Provide a structured marketplace for buying, selling, and leasing farmland. Enable direct workforce hiring by connecting farmers with skilled labourers. Automatic salary calculations based on tracked work hours. Enhance transparency and security in real estate transactions. Improve decision-making through farm-specific insights such as soil quality and crop suitability. By digitizing these processes, the system helps farmers, investors, and agricultural firms streamline their operations, reducing reliance on manual negotiations and paperwork. The platform aims to bridge the gap between real estate transactions and labour hiring in agriculture by providing a one-stop digital solution.

1.2 Keywords

Agricultural Real Estate, Farm Workforce Management, Online Marketplace, Farmland Leasing & Sales, Farm Labour Hiring, Payroll Automation, Digital Payment Integration, Real-Time Messaging, Workforce Transparency, Automated Salary Calculation, Secure Transactions, Decision-Making Insights, Soil Quality Analysis, Crop Suitability Assessment, Agricultural Operations Digitization, Farmer-Buyer Communication, Investment in Farmland, Smart Farming Solutions, Farm Management System, Efficient Land Utilization.

1.3 Project Scope

Greenary Acres serves multiple stakeholders Farmers Sell, lease, or manage farmland properties and hire farm labourers. Investors Identify and invest in agricultural properties based on verified data. Real Estate Companies Manage property listings and interact with clients efficiently. Farm Workers Register for employment opportunities based on skill sets. The system enhances accessibility by providing an intuitive interface for stakeholders while reducing dependency on intermediaries. It also ensures the authentication of land records, workforce qualifications, and financial transactions.

1.4 Project Overview

The platform consists of key modules designed for seamless operations:

- User Authentication & Role-Based Access - Secure login and account management.
- Property Management - Farm property listings, status updates, and transaction handling.
- Farmer Hiring Module - Job postings, applications, and worker database.
- Attendance & Payroll Automation - Work-hour tracking and salary calculations.
- Real-Time Notifications & Messaging - Communication among stakeholders.

By incorporating these features, Greenary Acres ensures a digitally streamlined approach to agricultural real estate and workforce management.

IJIREEICE ISSN (O) 2321-2004, ISSN (P) 2321-5526

International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering

Impact Factor 8.021 ⁜ Peer-reviewed & Refereed journal ⁜ Vol. 13, Issue 4, April 2025

DOI: 10.17148/IJIREEICE.2025.13428

2. SYSTEM OVERVIEW

Current real estate platforms focus primarily on urban properties, with limited support for farm-specific needs. Most platforms lack dedicated modules for farm leasing, worker hiring, and property management, leading to offline dependencies and inefficiencies in transaction handling. The proposed system provides a unified platform with: User management for buyers, sellers, and farmworkers. Secure real estate transactions with listing management. Integrated workforce hiring and salary management. Admin control for monitoring activities and ensuring compliance. Notification system for real-time updates on listings and job postings.

3. METHODOLOGY

3.1 System Architecture

The system follows a structured development model consisting of: Requirement Analysis: Identifying stakeholder needs and system specifications. System Design: Creating database structures, UI prototypes, and workflow diagrams. Implementation: Developing the platform using front-end and back-end technologies. Testing & Validation: Ensuring system performance, security, and usability. Deployment & Maintenance: Hosting the system, monitoring performance, and making improvements.

3.2 Technology Stack

- Front-end: HTML, CSS, JavaScript for a responsive user interface.
- Back-end: PHP and Laravel for server-side processing.
- Database: Django for storing user, property, and transaction data.
- Payment Integration: Secure digital transactions through banking APIs.
- Communication: Real-time messaging using WebSockets

3.3 Data Flow

- Users (farmers, investors, workers) register and authenticate.
- Farmers list farmland properties and hiring requirements.
- Buyers browse and interact with sellers via messaging.
- Workers apply for jobs and track attendance.
- Payments and payrolls are processed securely.
- Admin oversees transactions, compliance, and user activity.

4. SYSTEM DESIGN & IMPLEMENTATION

4.1 Module Description

- User Management Module: Registration, authentication, and access control.
- Property Management Module: Farm property listing, search, and transaction handling
- Farmer Hiring Module: Job postings, applications, and worker management.
- Worker Attendance Module: Attendance tracking and work-hour management.
- Salary Calculation Module: Automated payroll processing.
- Admin Panel Module: User control, property approvals, and system monitoring.
- Notification & Communication Module: Alerts, messaging, and status updates.

IJIREEICE ISSN (O) 2321-2004, ISSN (P) 2321-5526

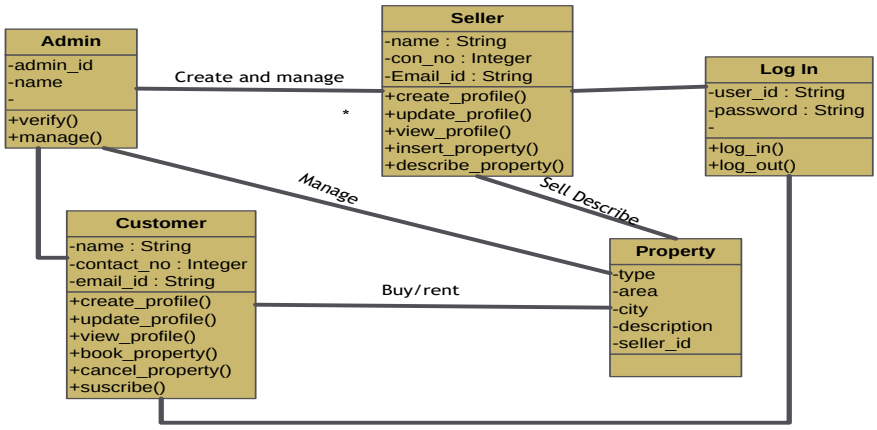
International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering

Impact Factor 8.021 ⁜ Peer-reviewed & Refereed journal ⁜ Vol. 13, Issue 4, April 2025

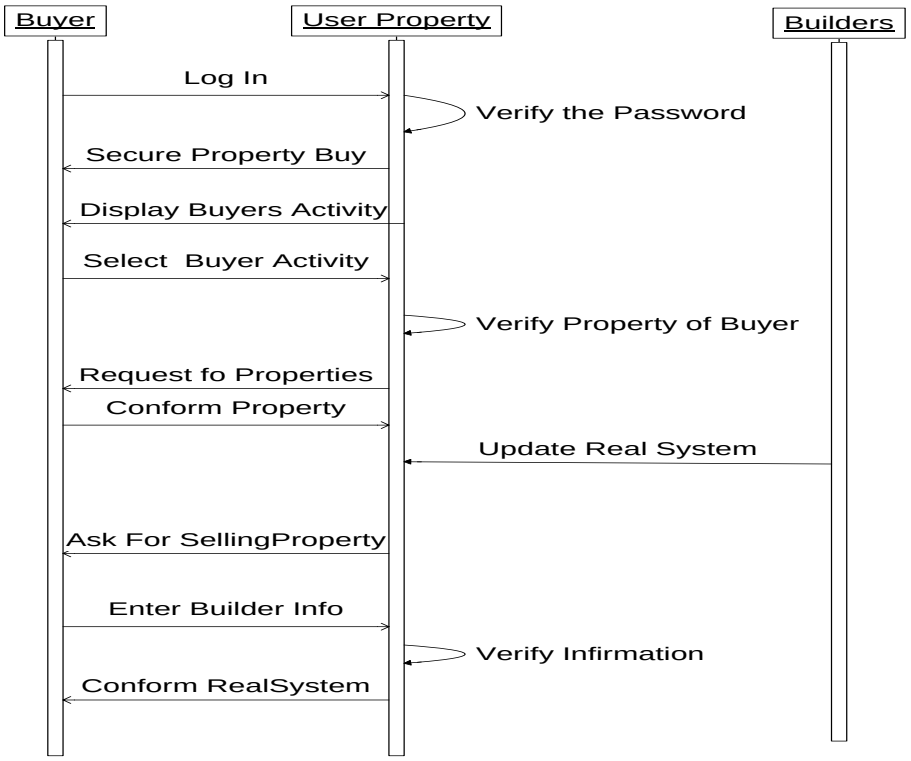
DOI: 10.17148/IJIREEICE.2025.13428

4.2 System Diagrams

• Class Diagram



• Sequence Diagram



5. SYSTEM TESTING AND IMPLEMENTATION

5.1 System Testing

Unit Testing: Validates individual modules.

- Integration Testing: Ensures seamless interaction between components.
- Functional Testing: Confirms that core functionalities operate correctly.
- Performance Testing: Evaluates system response and database efficiency.

IJIREEICE ISSN (O) 2321-2004, ISSN (P) 2321-5526

International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering

Impact Factor 8.021 ⁜ Peer-reviewed & Refereed journal ⁜ Vol. 13, Issue 4, April 2025

DOI: 10.17148/IJIREEICE.2025.13428

- Security Testing: Identifies vulnerabilities such as SQL injection and XSS attacks.
- User Acceptance Testing (UAT): Validates usability and collects feedback.

5.2 System Implementation

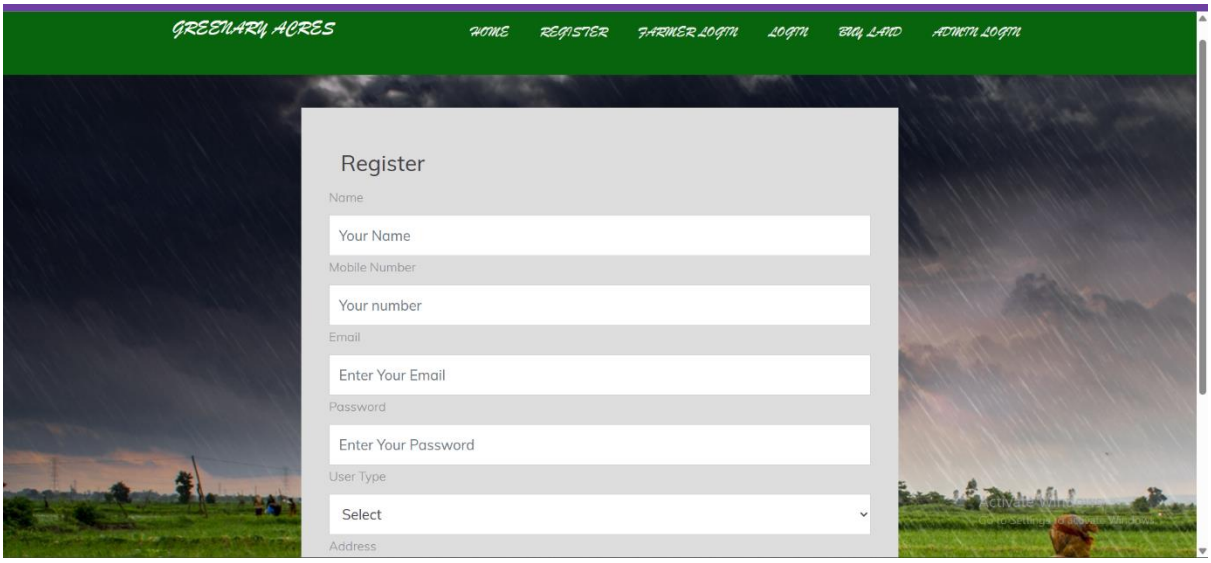
Pilot Implementation: Limited deployment for initial feedback.

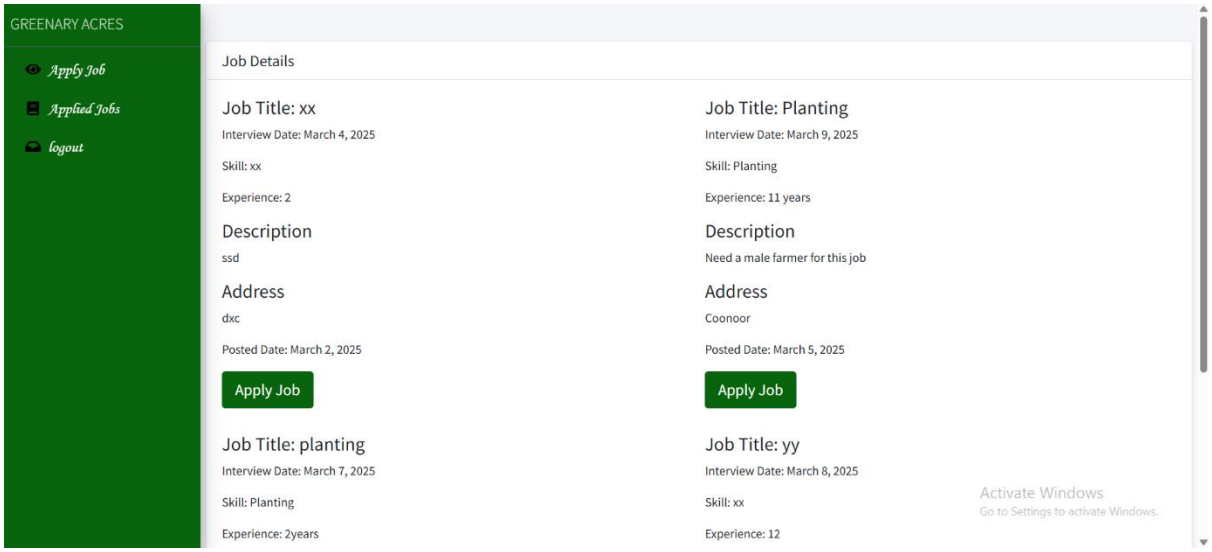
- Parallel Implementation: It runs alongside existing platforms.
- Phased Implementation: Gradual release of key features.
- Full Deployment: System-wide rollout with ongoing technical support.

6. CONCLUSION

The "Greenary Acres Sales and Farmer Hiring Portal" addresses key challenges in agricultural real estate management by integrating property transactions, workforce recruitment, and automated salary processing into a single platform. The system provides transparency, security, and efficiency, offering significant benefits to farmers, buyers, and real estate developers. Future enhancements will further expand its usability and impact on the agricultural sector.

7. SCREEN SHOTS



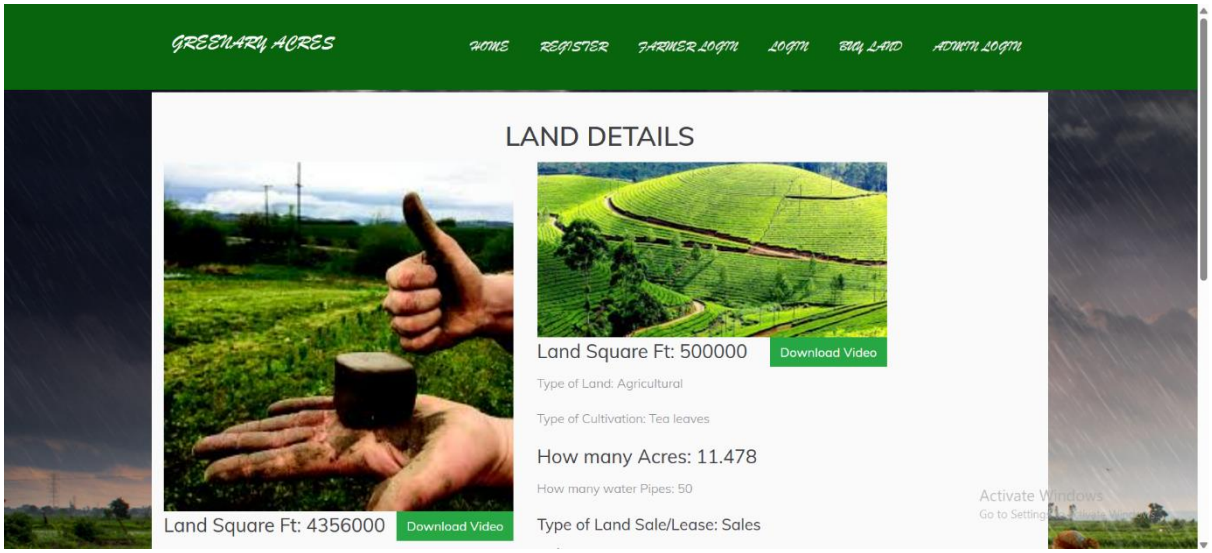


IJIREEICE ISSN (O) 2321-2004, ISSN (P) 2321-5526

International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering

Impact Factor 8.021 ⁜ Peer-reviewed & Refereed journal ⁜ Vol. 13, Issue 4, April 2025

DOI: 10.17148/IJIREEICE.2025.13428



REFERENCES

[1]. Welling, L., & Thomson, L. (2008). PHP and MySQL Web Development. Addison-Wesley.
[2]. Duckett, J. (2022). PHP & MySQL: Server-side Web Development. Wiley.
[3]. MySQL Developer Zone. "MySQL 8.0 Reference Manual." Oracle Corporation.
[4]. Mozilla Developer Network (MDN). "PHP: Hypertext Preprocessor." Mozilla Foundation.
[5]. Stack Overflow. "Questions tagged 'PHP'." Stack Exchange Inc.