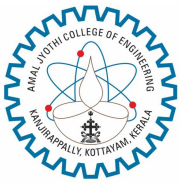

AMAL JYOTHI
COLLEGE OF ENGINEERING
(AUTONOMOUS)

FEATHER FARM SOLUTIONS

23MCA245 - Mini Project

Scrum Master
Ms.Rini Kuriyan
Assistant Professor
Department of Computer Applications

Nimya Thomas
AJC23MCA-2047
RMCA2023-25
https://github.com/nimyathomas/Feather-Farm-Soloutions
nimyathomas2025@mca.ajce.in

DEPARTMENT OF
COMPUTER APPLICATIONS

ABSTRCT

1.Feather Farm Solutions

Introduction:

The poultry farming industry, in particular, demands precise oversight and innovative solutions to maintain high standards of bird care, optimize resource utilization, and streamline operations.
This project presents a comprehensive Poultry Farm Management System designed to address these challenges through the integration of advanced machine learning (ML) techniques. Built on the robust Django framework, this system offers a multi-faceted platform that caters to the diverse needs of administrators, stakeholders, employees, and wholesale buyers.

Front-end:HTML,CSS,JavaScript

Back-end:Python Django Framework,MySQL

1.Stalkholder

- **Overview Section:**

- **Summary of Chick Health:**

  - Number of healthy chicks, sick chicks, and mortal ones that is daily updates from day 1 to day 40.

- **Upcoming Tasks:**

  - Scheduled tasks like vaccinations and medication in case of sudden disease detection.

- **Alerts and Notifications:**

- High mortality alerts.
- FCR hike alerts.
- Low stock level alerts.

• Medication Management:

Scheduled Medications:

- List of upcoming medications and vaccinations (with dates).

• Request Medication:

- Form to request on-demand medication.

• Vaccination Schedule:

- Detailed schedule for vaccinations (7th, 14th, 20th days).

• Feed Management:

Current Feed Levels

• Status of Feed Levels: This refers to the current amount of different types of feed available.

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- **Pte-Starter Feed**: Used from day 1 to day 10.
- **Starter Feed**: Used from day 11 to day 30.
- **Finisher Feed**: Used during the last 10 days of the chick's growth period.

• Request Feed:

- Form to request feed from admin.**• Feed Program:**
- Feed content display

• Health Monitoring:

• Chick Health Status:

- Visual representation (charts or graphs) of health metrics.

• Mortality Reports:

- Report and log mortality rates and reasons.
- Image recognition of diastase of chicks,mortal ones(reason for death)

• FCR Analysis:

• Current FCR:

- Display the current Feed Conversion Ratio.

• FCR Trends:

- Graphical representation of FCR trends over time.
- Predict Financial Year-End Metrics Using ML

• Emergency Contacts:

- **Connect to Veterinarian:**
  - Option to contact a veterinarian in case of emergencies.(redirecting to audio call)

• Profile Management:

- **Profile Information:**
  - View and update profile information.
  - Login ,registration

Payment to Stakeholder

module that covers the entire process—from entering bank details to generating and downloading payslips or bills

Key Features

Order Summary:

- Display details of the orders placed, including quantity, price

Payment Options:

- Provide multiple payment methods (e.g., bank transfer, credit card, online payment gateways).

Payment Processing:

- Securely process payments and update the payment status in real-time.

2.Admin

- **Finance Management:**

Track income and expenses, generate reports.

- Salary **Management:**

provide salary to employee,share to stalkholder ,receive payment from wholesale buyer.

- **Payments:**

Manage and automate payments.

- **Employee Management:**

Maintain records and track performance.(crud)

- **Attendance Tracking:**

Monitor employee attendance.

- **Low Stock Alerts:**

Receive alerts for low feed or supply levels.

- **On-Demand Requests:**

Allow medication requests.

- **FCR Analysis:**Calculate and analyze feed efficiency.on behalf of admin to cross check the fcr obtained by stalkholder are same

- **Bird Lifting Management:**

Manage bird lifting processes.

ML implementations

- **Finance Management:**

Use forecasting models to predict financial trends.

- **Payments:**

Apply anomaly detection to identify fraudulent transactions and automate processing.

- **Employee Management:**

Analyze performance using classification and clustering models.

(ML) can be used to identify the best-performing employees based on various performance metrics.

Here's how you can implement ML to evaluate and rank employee performance:

Advantages

1.Enhanced Operational Efficiency

1. Streamlined processes for medication, feed management, and task scheduling.

2. Automated alerts and notifications ensure timely actions and reduce manual oversight.

2.**Improved Health Monitoring**1. Detailed health metrics and mortality reports allow for better tracking and management of chick health.

2. Visual representation of health data aids in quick decision-making.

3.Predictive Insights with ML

1. Accurate FCR analysis and trends help in optimizing feed usage and improving financial outcomes.

2. Seasonal order management forecasts demand, aiding in inventory and resource planning.

3. Performance analysis of employees ensures better workforce management and productivity.

4.Comprehensive Financial Management

1. Integrated finance and salary management modules simplify tracking of income, expenses, and payments.

2. Automated payment processing reduces administrative burden and ensures accuracy.

5.Improved Stakeholder Communication

1. Real-time updates and detailed status reports keep stakeholders informed and engaged.

2. Emergency contact options provide quick access to veterinarians and support in critical situations.

6.Efficient Order Management

1. Detailed order placement and tracking interface for wholesale buyers ensures smooth transactions.

2. Real-time status updates on bird readiness streamline the lifting process and improve buyer satisfaction.

7.User-Friendly Interface

1. Intuitive design and easy navigation enhance user experience for all stakeholders.

2. Accessible profile management and registration features ensure smooth on boarding and account maintenance.

8.Robust Data Security

1. Secure payment processing and transaction history tracking protect sensitive financial information.

2. Comprehensive profile management ensures data privacy and integrity for all users.

9.Scalability and Flexibility

1. Modular design allows for easy integration of additional features and scaling as the business grows.2. Customization interfaces and functionalities cater to the specific needs of different user roles.

10.Long-Term Sustainability

1. Data-driven decision-making supports sustainable growth and improved resource utilization.

2. Continuous monitoring and predictive analysis help in maintaining high standards of bird care and farm management.

Conclusion:

FEATHER FARM SOLUTIONS" is an innovative and comprehensive Poultry Farm Management System that leverages advanced machine learning (ML) techniques to address the complexities of modern poultry farming. By integrating robust features within the Django framework, the system provides a multi-faceted platform catering to the diverse needs of administrators, stakeholders, employees, and wholesale buyers.

The platform enhances operational efficiency through precise health monitoring, feed and medication management, and automated alert systems. The integration of ML for FCR analysis, seasonal order management, and employee performance evaluation offers predictive insights and data-driven decision-making capabilities.

Key features such as real-time updates, emergency contact options, order management, and a detailed

payment interface ensure seamless coordination between stakeholders and wholesale buyers. The administrative tools for finance and salary management, employee tracking, and bird lifting processes streamline operations and improve overall productivity.

With its user-friendly interface, robust back-end, and intelligent use of ML, "FEATHER FARM SOLUTIONS" stands out as a state-of-the-art solution, poised to transform the poultry farming industry by optimizing resources, enhancing bird care, and simplifying management tasks. This system not only supports the immediate needs of poultry farms but also positions them for sustainable growth and success in the long term.