



FAST NUCES ISLAMABAD

PROJECT

Subject name:

SL3003 Web Engineering

Title:

Layer Poultry Farm Management System

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Group Members

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Introduction

The **Poultry Farm Management System** (PFMS) is a specialized data-driven application designed to streamline operations in a **layer poultry farm**. This system is tailored to manage farm activities for the entire two-year production cycle. The system will feature independent modules, each focusing on a critical aspect of farm management, and offer robust CRUD operations.

The PFMS will provide detailed tracking of feed, egg production, vaccination schedules, inventory, and financial performance while integrating key third-party APIs for notification.

System Modules and Features

1. Feed Inventory Management

- Track feed stocks with quantity and usage records.
- Manage feed orders, including date and supplier details.
- Monitor daily usage of feed to ensure stock availability.

2. Health Management

- Schedule vaccination dates for flocks.
- Maintain records of all previous vaccinations, including vaccine type and administration date.
- Track mortality of hens.

3. Egg Production Tracking

- Monitor daily egg production with date-specific logs.
- Maintain historical records for analysis and tracking.

4. Egg Inventory Management

- Record eggs sold with buyer details and sale dates.
- Maintain updated records of eggs in inventory.

5. Cost Tracking

- Track standard expenses like feed, labor, and electricity.
- Allow users to add custom expenses dynamically (e.g., plumbing).

6. Revenue Tracking

- Record total sales and income generated from egg sales.
- Calculate and display total expenses and profit/loss.

7. Dashboard Module

- Display daily, weekly, and monthly trends for egg production, mortality, feed usage, and financial data.
 - Provide a profit/loss overview with dynamically updated figures.
 - Visualize data using charts and graphs, such as bar graphs for expenses and line charts for revenue trends.
 - Highlight critical alerts like low feed stock, missed vaccination schedules, and high mortality rates.
 - Allow filtering and customization of displayed data by time range or category (e.g., feed, revenue).
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Database Design

The database will include the following main entities:

- **Feed Inventory:** Tracks feed stocks, orders, and usage.
 - **Vaccination Records:** Logs vaccine schedules and administration details.
 - **Egg Production:** Records daily production logs.
 - **Egg Inventory:** Tracks egg sales and inventory levels.
 - **Expenses:** Monitors standard and custom expense categories.
 - **Revenue:** Records sales and calculates profit/loss.
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Work Division

Group Member	Module Assigned	Git Repository Link (to be updated)
Faraz Hayder	Health Management, Feed Inventory Management, Dashboard Module	[GitHub Repository Link]
Ahmed Ayyan	Revenue Tracking, Cost Tracking	[GitHub Repository Link]
Ahmad Farooq	Egg Production Tracking, Egg Inventory Management	[GitHub Repository Link]

Third-Party API Integrations

Gmail Notification API: For reminders about vaccinations and inventory alerts.

More Api's might be integrated in the future according to specific use-cases and requirements.

Screens and Layouts

Each module will have its own basic UI screen for:

- Adding, updating, and deleting records.
- Viewing data with simple tables or lists.
- Search and filter functionality where applicable.

Features Tailored for Layer Poultry Farms

- **Long-Term Data Management:** Maintain records for the full two-year layer poultry production cycle.
- **Comprehensive Egg Tracking:** Includes production, quality, inventory, and sales.
- **Customizable Expense Tracking:** Users can define new expense categories as needed.

Conclusion

The PFMS is designed to comprehensively manage the operations of a layer poultry farm, with features focused on inventory, production, vaccination, and financial tracking. Each module will be independently developed, ensuring scalability and modularity while providing seamless integration.