

Milk Dairy Management

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Abstract –

The dairy industry relies on trust between farmer and owner of the dairy. The software we are introducing is basically designed for maintaining this trust between farmers and owners. It is designed to provide dairy farmers with a real-time notification of the milk they provided as it is mentioned on the receipt. This contents generally tell the value of the milk. So if, somehow farmers lost their receipts, they would still have data stored in their messages protecting them from any potential scams

1. Introduction

The dairy industry is a pillar of our nutrition. This software has been designed with a singular focus: to protect and empower dairy farmers and to enhance transparency in the dairy industry. The dairy farmer, often the unsung hero in the supply chain, can sometimes be vulnerable to unscrupulous practices. Our software aims to change that by allowing dairy farmers to have real-time verification of their milk content and how much is the value of the milk they have provided.

Why to use this software?

- The software provides real-time milk content verification, ensuring that farmers have immediate access to vital information about the quality of milk deliveries. Actually that's the main purpose of this software
- Dairy farmers can verify the content of their milk deliveries independently, reducing their vulnerability to potential scams or miscommunication.
- The software protects the interests of dairy farmers by sending them immediate text message about the milk's quality

2. Review of Literature

2.1 Study of Existing System

This type of software exists in like every dairy owner. Features of that software are as follows:

1. The software can maintain historical data, which is essential for long-term record keeping.
2. The software can be easily handled by any dairy owner

2.2 Findings from Literature review

By studying deeply the existing software, we came to conclusion that this software lacks a feature such as:

1. Real-time notification of the milk **with its** date ,fat ,type of milk, its amount in morning and evening contents in Marathi language it will be send through Sms and Whatsapp Number.

3. Problem Statement/problem Definition

3.1 Problem statement

In the world of running a milk dairy, effective communication is key for happy customers and smooth operations. However when a farmer delivers milk to the dairy owner, they give farmers a kind of receipt where all the contents of the milk is given. Based upon this receipts the value or price of milk is determined, once a week or once a month. So, for money to be received farmer has to keep the receipt for day, maybe even months. Sometimes the receipts could get lost and there will be issues with the determining value of the milk. The farmer may get scammed because of this. Even both of the farmer and dairy owner face challenges. So basically here's a need of a software which can store the data of contents of the milk to both farmer and dairy owner.

3.2 Project Scope

- Develop a specialized software solution for dairy industry that focuses on milk contents verification with the help of real time MSG
- Milk content verification: The software will send a message of milk contents to the farmers once the owner or manager of dairy has filled specified information
- Data Record Keeping: Proper records of milk contents are stored in the database ensuring quality control.
- Transparency and Trust Enhancement: Enhance transparency and trust between dairy owners, farmers, and other stakeholders in the dairy supply chain by providing real-time data and feedback mechanisms.

4. Objective of Proposed System

1. Improve transparency within the dairy supply chain by providing real-time access to milk content verification results for dairy farmers .
2. Establish a robust data storage system to maintain comprehensive records of milk content verification results.
3. Develop a user-friendly interface to ensure that the software is accessible to all the dairy owners and managers.
4. Foster trust between dairy farmers and dairy owners by providing a real-time notification of milk its date ,fat,type of milk, its amount in morning and evening contents in Marathi language on Sms and Whatsapp Number contents.

5. Methodology

1. Competitive Analysis:

Analyze existing milk diary websites and similar platforms.

Rationale: Understand the strengths and weaknesses of competitors, identify best practices, and uncover opportunities for differentiation.

2. Technology Stack Research:

Research appropriate technology stacks for website development, including web development frameworks, databases, and SMS integration tools.

Rationale: Ensure that the chosen technology stack aligns with the project's technical requirements and scalability.

3. Security Research:

Research security best practices for safeguarding user data and ensuring the website is secure.

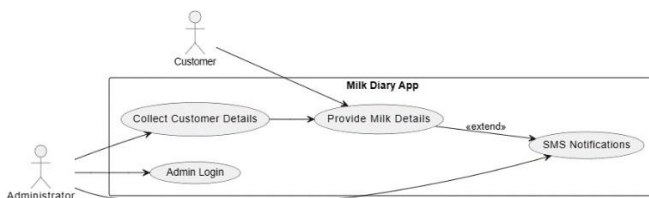
Rationale: Protect user data from potential security threats and vulnerabilities.

4. Use Case Analysis:

Develop detailed use cases based on the scenarios provided and potential user interactions.

Rationale: Ensure a clear understanding of the core functionalities required for the website.

5.1 System Architecture/Flow/ER/DFD Diagram



5.2 Modules of Software System

1. Admin Management Module:

Administrators use this module to manage their accounts. It includes features like updating profiles,

2. Customer Management Module:

Admins utilize this module to manage customer information. Features include adding new customers, updating customer details, and deleting customer profiles.

3. Dashboard Module:

Both admins and customers have access to dashboards with summarized information. Admins can see customer transaction data, while customers can view their own transaction history and receive SMS

4. Transaction and SMS Module:

Admins use this module to review the milk supply data provided by customers. They can select specific transactions and send SMS notifications to customers containing transaction details, such as milk type, fat content, and rate.

5. Milk Collection Module:

Allows dairy farmers to record the quantity of milk collected from each cow or supplier. This helps in keeping track of the milk supply.

6. Billing:

Generates bills for customers who purchase dairy products. This module helps in maintaining financial records and ensuring timely payments.

7 .SMS Gateway

Telesign SMS gateway is used offers businesses a flexible and versatile solution for integrating automated SMS and notifications into their existing systems

6. Requirements

6.1 Software Requirement

6.1.1 Frontend

1. Html
2. Css
3. JavaScript

6.1.2 Backend

1. .C#
2. . Database
3. Java

6.2 Hardware with specification

1. Main Processor - Intel core i3,i7
2. RAM - Minimum 8Gb or More
3. Storage - 256gb
4. Printer

7. Application of Proposed System

1. Streamlined Transactions: The app facilitates and streamlines the process of buying and selling milk. It provides a convenient platform for both parties to record and confirm transactions.
2. Notification History: Users have access to a history of sent SMS messages within the app, making it easy to refer back to previous transactions

8. Advantages, Disadvantages

8.1 Advantages

1. New system:
Provide useful platform for people associated in the field of dairy which makes it a must-develop method for improvising the field.
2. Data Accuracy:
By digitizing data collection and record-keeping .It reduce the risk of errors that can occur with manual record-keeping, ensuring data accuracy
3. Resource Management:
Helps in maintaining inventory and keep track on essential supplies which are available.
4. Accessibility:
SMS messages are accessible to users with basic mobile phones, ensuring that even those with limited access to smartphones can receive transaction details
5. Customer Details:
Manage customer details.
Eg:- customer name, address, phone number
6. SMS History:
Maintain a history of sent SMS messages within the app so that users can reference them later.

8.2 Disadvantages

1. Delivery Reliability:

SMS delivery is generally reliable, but it's not guaranteed. Messages may be delayed or not delivered due to network issues, phone number changes, or other technical problems. Users may miss important information if SMS delivery fails.
2. Security and Privacy Concerns:
Strong security measures have to be in place so as to guarantee protection.

3. Resistance to Change:
People may face challenges to adopt a new change in the market which make it unique but a difficult to handle methodology.

9. Conclusions and Future

Work The "Milk Dairy" is designed and developing to fulfilling the necessary requirements, as identified in the requirements analysis phase, such as the system is very much user friendly , that will save data of dealing between dairy admin and farmers with real time notifications i.e SMS Format which includes fat of milk ,date ,time, Quantity , rate, and total. This will ensure proof of delivery and strategic follow-ups. Nowadays , some of them are using receipt .if receipt would be lost it will difficult for them so this software will would still have data stored in their messages and protecting them from any potential scams This app would be allowing dairy farmers to have real-time notification.

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