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Smart Dairy Android Application

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ABSTRACT: A smart dairy management system for ordering products and delivering milk, a resourceful dairy management system for ordering and delivering milk Managing deliveries of dairy products and placing orders for related products is quick and easy with an Android app. The concept aims to simplify and streamline the delivery of fresh dairy milk and other dairy products to customers' doorsteps.

the procedure for ordering and obtaining dairy products. By offering a user-friendly interface and a number of features to improve the overall experience, the effort seeks to close the gap between dairy farms, regional suppliers of dairy products, and consumers. Users of the app may browse and view the nutritional facts, costs, and ingredients of a variety of milk products such as milk, cheese, yogurt, and butter. through this application we can make an online payment.

KEYWORDS—Smart dairy; Mobile Application; product ordering; make online payment on this application.

I. INTRODUCTION

The android application smart dairy, a user-friendly for managing and distributing various products from milk to cheese, butter, and yogurt, our android application streamlines the process for admins, distributors, customer, Operators. Experience convenient dairy product management to your fingertips. Our android application aims to revolutionize the dairy industry by providing a seamless platform that connects consumers directly with local dairy farms and producers. Through this application.

Milk Delivery and Product Ordering Using a Smart Dairy Management System Controlling the delivery of milk products and placing orders for associated products via a mobile application is a practical and effective way using an Android application. The application's goal is to make the process of delivering fresh dairy milk and other dairy products to customers' doorsteps as efficient as possible. Purchasing and shipping procedures for dairy products. By offering a user-friendly interface and a variety of features to improve the overall experience, the effort seeks to close the gap between dairy farmers, local dairy product providers, and consumers. Through the app, customers may browse and pick from a selection of dairy goods like milk, cheese, yogurt, and butter. Additionally, they can research data. They can make online payment. Through this android application.

II. LITERATURE REVIEW

Existing system

The existing system is manual in nature, it is not automated. The existing system needs the person to fill necessary details in distributorship registration form and pay deposit amount to start franchise by going to MILK FEDERATION. Then officers present will verify the necessary documents and acknowledgement will be given regarding the approval. After the approval the distributor needs to give details on which all products which to be delivered at the parlor.

Customer can buy dairy products from the parlor.



Disadvantages

- An ample amount of time is wasted for the distributor by going to milk federation to apply for distributorship in order to own franchise of the dairy products.
- There is a specific timing for submission of the registration form and approval acknowledgment.
- They have to wait for days to get approved from the officials.
- They have to call and order the dairy products followed by distributor ID.
- Customer has to wait for the parlor to open in order to purchase fresh dairy products, as a dairy parlor is not 24/7 available.

Proposed System

The proposed system for our android API cow to cart is a comprehensive and integrated platform that automates and streamlines the entire distribution process. It includes modules for admin, distributors, customers, and vending machine operators. The system allows admins to manage registrations, approve distributors and customers, and oversee operations. Distributors can place orders, manage sales, and track inventory. Customers can browse and purchase products, make payments, and view transaction history. Vending machine operators can access supply information and receive notifications. The system ensures smooth communication, efficient inventory management, secure financial transactions

Advantages

- The android API can be used anytime and from anywhere by the distributor .
- The distributor can order dairy products over the internet.
- The distributor can make online payment for the ordered products .
- The dairy vending machine will be available for the customer 24 hours a day throughout the week
- The customer can pay through online payment
- The customer can vend dairy products from vending machine by scanning QR code

II. METHODOLOGY

Admin

Admin can register, login and provide their contact details. admin users can , approve customer, add distributor ,delete customer delete distributor ,view distributor, View customer

Distributor

Distributor can login to the android API by using the credentials provided by admin, and distributor can deposit amount to order Dairy products. Distributor can order Dairy products by entering the ID provided during registration distributor can add the sales details of the day, this helps him to keep an account of regular sales which helps him gain profit, distributor can edit his profile details like password, Contact Number and profile photo, Distributor can view his personal details



Customer

The customer module allows customer to register and login to the app after admin approval. Customers can make payments by scanning QR codes on a dairy or monthly basis, using debit/credit cards or online UPI payments. They can view their payment activity, manage their profile details, and access personal information.

III. SYSTEM DIGRAM

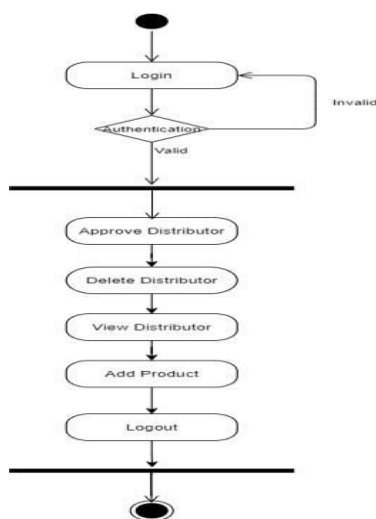


Fig 1.1 Activity Diagram admin

The android application offers an admin module that serves as the central control hub. Admin have privileged access and can log in using predefined credentials. They have the authority to manage various aspects of the application, include approving customer registrations and adding new distributors. The admin can also view detailed information about approved distributors and customers, allowing for effective oversight and management.

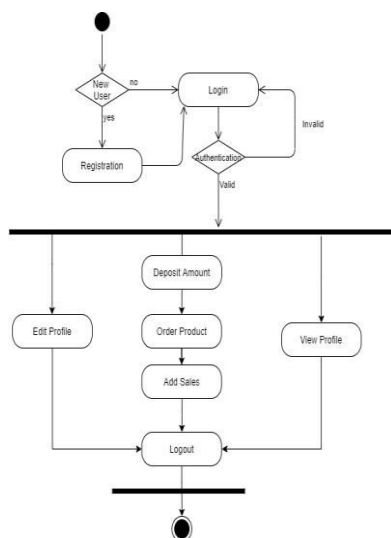


Fig 1.2 Activity Diagram Distributor



The Distributors, the application provides a dedicated module that enables them to log in using their provided credentials. Distributors have access to a range of functionalities, such as depositing funds for purchasing cow products, placing orders by selecting products

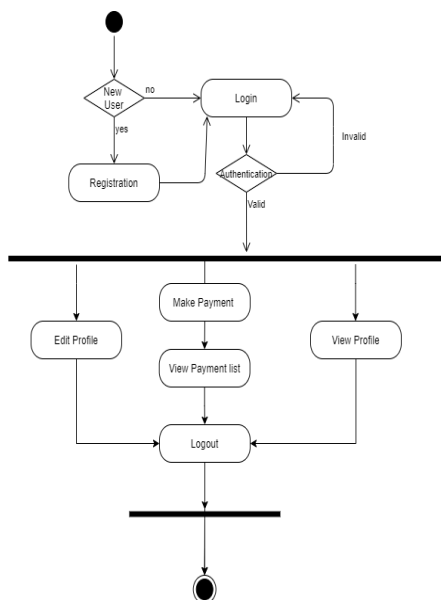


Fig 1.3 Activity Diagram Customer

Customers are also an integral part of the cow product application. They can register within the application, and once approved by the admin, gain access to features tailored to their needs. Customers can browse and purchase milk products, make payments using integrated payment method such as debit/credit cards or online UPI payments, and view their payment activity and transaction history. The ability to edit details and view personal information further enhances the customer experience.

System Architecture

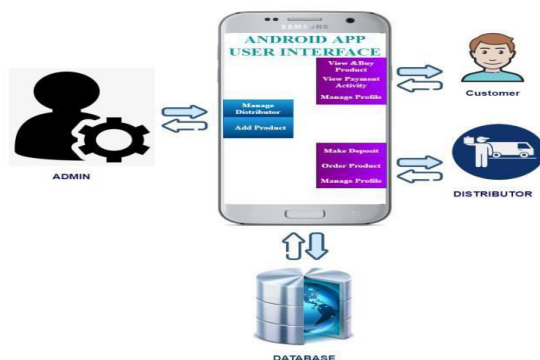


Fig 2.1 System Architecture



In the above figure 2.1, The smart dairy android application architecture would involve various components working together to provide its functionalities. Here's an overview of the potential system architecture for the application.

1. customer interact with distributor through the android application using an android phone.
2. The UI layer is the front end of the application that includes screens for registration, login admin and where all the customer and distributor get an approval by the admin
3. The distributes will get approval by the admin and distributor will supply the order products.
4. Customer are register to the smart dairy application and its will approval by the admin and customer will order a product and they will make a payment through this phone like online payment activity services are available. And edit their profiles. And view the profile. And they can view the payment activity.
5. The application back end comprises server and data base that store user information. All the activity of the distributor and customer activity. And payment activity is store in the data base.

IV. SYSTEM LIMITATIONS

Data accuracy: This application relies heavily on accurate data about milk availability, stock levels, and delivery routes. Ensuring data accuracy and real-time updates can be challenging.

Connectivity Issues: The application functionality may be affected by the network connectivity problems, especially in remote or rural area where internet access might be limited.

Payment Security: Handling financial transactions requires robust security measures to protect user payment information and prevent potential fraud.

Customer Support: providing effective customer support for any application related issues or queries is essential for user satisfaction

V. FUTURE SCOPE AND IMPROVEMENTS

Customer Loyalty: Implement a loyalty program to reward loyal customers with discounts, free products, or special offers based on their purchase history.

Real-time Delivery Tracking: Integrate a real-time tracking system that allows customers to track the status of their milk delivery and receive notifications when it's out for delivery or has been delivered.

Product Reviews and Ratings: allow customers to leave reviews and ratings for the products they purchase. This feature helps other customers make informed decisions and provides valuable feedback to dairy business.

Sales Analytics: Incorporate data analytics and reporting capabilities to provide insights into sales trends, popular products, and customer behavior. This information can guide decision-making and help improve marketing and sales strategies.

Multi-Language Support: provide language options to customer who prefer using the android application in their native language. This expands the user base and improves accessibility for a wider audience.

Social Media Integration: Integrate the android application with popular social platforms to allow customer to share their purchases or experiences with friends and family. This can help increase brand visibility and attract new customer.

VI. CONCLUSION

The "smart dairy" android application project introduces an Android application that transforms the dairy management system. By automating distributorship registration, facilitating online ordering and payment, and enabling 24/7 access to dairy products through smart dairy, the project significantly improves efficiency and convenience. Distributor can easily apply for franchise ownership and manage their operations, while customers enjoy the flexibility of purchasing dairy products anytime, anywhere. With streamlined processes and enhanced customer satisfaction, the "smart dairy" project presents a modern and comprehensive solution for the dairy industry, benefiting both distributors and customers alike.



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