

Eazy Dairy

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Abstract

In the traditional milk delivery system, the milkman deliver the milk door to door. In this paper, we have proposed an Easy Dairy system. This system is especially for all the information and delivery of the milk which is entered and we can keep track of all transactions. This system is web and android based application that helps people who want to manage milk activities and places like milk booth, milk shops, dairy farms. E-commerce is booming very much and is projected to grow even further with increasing number of people relying on mobiles apps for day to day needs and the convenience it provides. our aim is to delivery milk to the customers via the delivery application through the delivery boys. The proposed system is evaluated and compared with the existing system.

Keywords: E-commerce, booming, convenience, application

1. Introduction

We know that milk is required every morning for a household and it is a must to have in-time delivery as one's schedule depends upon these items. Our application empowers consumers with choice of milk and real time information about milk quality. The traditional process of buying dairy products manually includes many inconsistencies and includes problems like the order details regarding the quantity may vary some day and the customers may wish to buy some more or less quantity of milk which the ordinary manual based

Process may lack to update during the real time delivery during morning or evening. The old system is highly prone to human errors as the manual work may sometime lead to minor or major inconsistencies. This may also be another cause for data inconsistencies like not maintaining the transactions logs properly, not listening to the customer order details accurately. These all reasons lead the whole traditional system of buying and selling of products highly inefficient. Eazy Dairy is a web-based/android-based application which is a dairy management application. This system will eliminate the traditional work process of buying and selling of dairy products with timely delivery and efficiency in work. It is totally compatible in both android and web (web- based application). The main goal of our proposed system is to transform all tedious manual process into a fully functional automated management system. The customers can make use of our project and buy their desired dairy product from the vendors of their choice in the quantity which they want to buy. Primarily in this system there will be three entities namely Vendor, Customer and Delivery boy. The database information of all these entities will be responsive and interconnected with the respected order details. A dairy food product is our daily need products of regular life. The dairy products application shows price catalogue of products (eg milk, curd, butter, paneer, ghee, etc.), purchase order summary, payment history, feedback, offers, and indent order.

In addition of milk several dairy products such as cream, butter, cheese, and ghee even though have been categorized milk into varying types of milks. The impact of milk and dairy products are useful and helpful for all agents and distributors. The agents are having account to login this application, and to view the order history and payments detail, due balance, schemes, and register a complaint for any queries and report.

The old manual or non-digitalized system which has been used so far is comparatively less efficient. Handwork of maintaining records of customers, dairy products, payments etc. are tedious and complicated. This may result in sort of inconvenience to the customers as well as the vendors to remember or to maintain the transaction log. This whole traditional process of buying and selling of dairy products on daily basis manually is hectic, time-consuming, inconsistent and less efficient.

The traditional process of buying dairy products manually includes many inconsistencies and includes problems like the order details regarding the quantity may vary some day and the customers may wish to buy some more or less quantity of milk. This may also be another cause for data inconsistencies. People in our country are becoming more and more dependent upon more into digital platforms for exchanging services. On the basis of the experimental analysis performed by us, we found that nowadays the need for online food ordering application platforms has been drastically increased and usage of online services is close to 45% as compared to the other methods of ordering food and pantry services.

2. Literature Review

This article mentions the four important and crucial stages of the management of vendor program which are selection and contract, execution, and renewal, along with other useful components and actions for each stage. In addition to this steps, critical strategic theory and best practices are outlined. Companies can use this article for assessing the state of their vendor program, as well as incremental steps which are required for program improvement.[1]

The growing Internet, accompanied by the development of other useful technology, has helped us made a significant impact on people's life. The emergence of stores that sell products and services online has significantly impacted many organizations across the country. Due to this, consumers are now able to purchase goods and services anywhere, and anytime.[2]

A dairy food product is our essential daily need in our regular life. The dairy product application shows price catalogue of products (e.g. milk, curd, butter etc.), purchases summary, payment history, feedback, offers, and indent order. In addition of milk and many products of diary such as cream, cheese, and ghee even though have been categorized milk into varying types of milks. The impact of this products is useful, helpful for all agents and distributors. The agents are having account to login this application, to view the order history, payments detail, remaining balance, schemes, and register a complaint for any query. [3]

As long as the stock of production of low quantity of milk and its potential continue to be the main source of milk in rural areas in our country. As it is the traditional approach of collection of milk. In order to change that, the paper designs an efficient Android-based management system which applies to various dairy shops and farms. In this system, the terminals on mobile are based on Android platform. [4]

3. Existing System and Proposed System

3.1. Existing System

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3.2. Proposed System

The main goal of our proposed system is to transform all tedious manual process into a fully functional automated management system. The customers can make useful of our project and buy their desired dairy product from the vendors of their choice in the quantity which they want to buy. Primarily in this system there will be three entities namely Vendor, Customer and Delivery boy. The database information of all these entities will be responsive and interconnected with the respected order details The main objective of our proposed system is to eliminate the old traditional or manual process of buying and selling of dairy products and transform it into automated fully functional application that is way more efficient in terms of time, payment and maintenance of transaction logs.

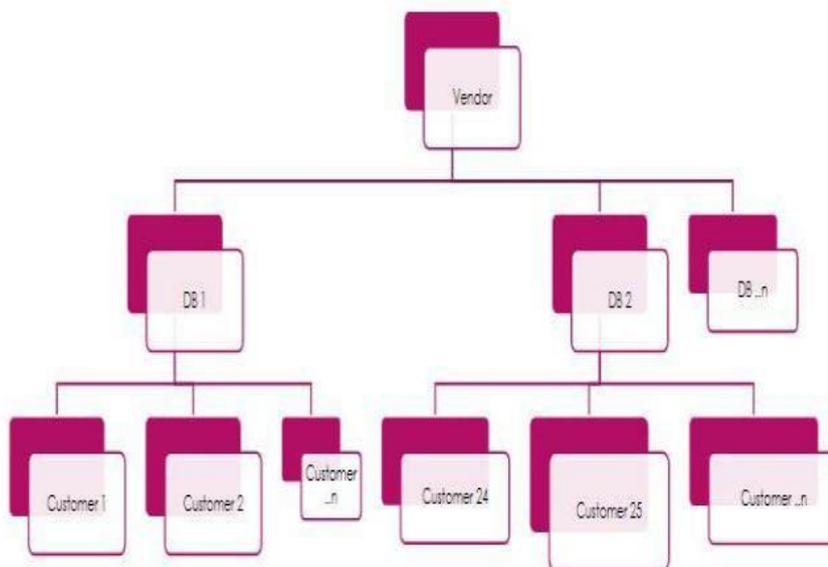
Some of the features included in our proposed system:

- Set delivery charges per month
- Set subscription – post-paid, prepaid or both
- Set cut-off time of accepting milk. Example: 21:00 pm
- Share vendor details to connect to other apps
- Get view of any record from history about delivery boys, customers etc
- Get record of milk to be delivered tomorrow after cut-off time
- Get view of total customers, delivery boys under him. Edit any of the above from settings as he wishes.

The Main Problems in Existing System are-

- Adulteration
- Data inconsistency
- Lack of coordination
- Unavailability of services
- Human errors
- Less efficient

SYSTEM BLOCK DIGARAM



4. Implementation

Approach the vendors and take a whole brief survey about the old manual work and try to understand the challenges faced by them while exchanging of products with the customers. The

survey will give a basic idea about the problems that we were unable to find. After the Survey is completed, we will explain the vendors about the whole functional features of the system and the feasibility of our proposed system. After the feasibility is being cleared and explained to the vendor, we will assign a beta web-based application to vendors and ask them to use it by giving us a review at the end of the month. We will try and ask vendors to assign delivery boys under them in the application. Delivery boys will be assigned customers by vendor himself according to the respective locations and the customer order demand ratio. On the other hand, customers will have the free will to choose any vendor or switch between any vendor whenever required. Our system has 3 main entities Vendor, Delivery boy and Customer.

4.1 CUSTOMER SIDE

- Customers sign-up / login to be done.
- Customer is offered a variety of choices.
- Customer can select order details as per needs.
- Order request gets forwarded to vendor.
- Order gets accepted by vendor
- Order is confirmed and ready for delivery.

4.2 DELIVERY BOY

- Each vendor has it's own delivery boys
- Delivery boy's login is done
- Delivery boy enters unique pin of their respected vendor and send request
- Vendor accepts the request if valid
- Delivery is assigned as per location of customer and delivery boy
- The parcel gets delivered respectively
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4.3 VENDOR SIDE

- Share vendor details to connect to other apps
- Get view of any record from history about delivery boys, customers etc.
- Get record of milk to be delivered tomorrow after cut-off time
- Get view of total customers, delivery boys under him
- Edit any of the above from settings as he wishes
- Convert into delivery boy if any one of them is absent

5. Results



Fig 2. Customer panel



Fig 2.1 Vendor panel

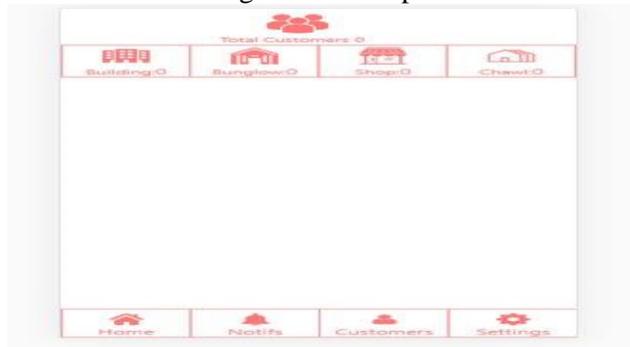


Fig 2.2 Delivery Boy Panel

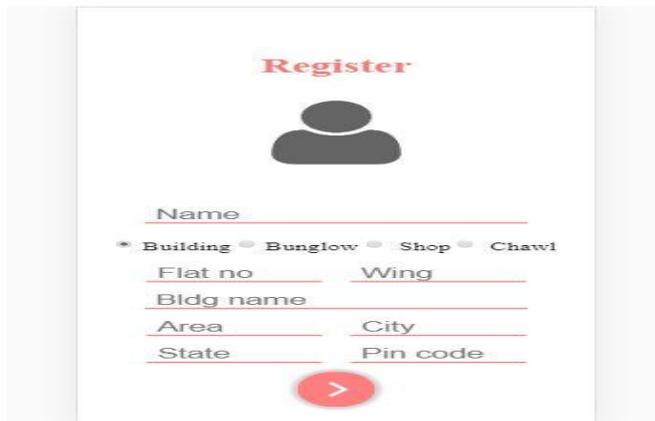


Fig 2.3 Registration Panel

5.1 Experimental Analysis

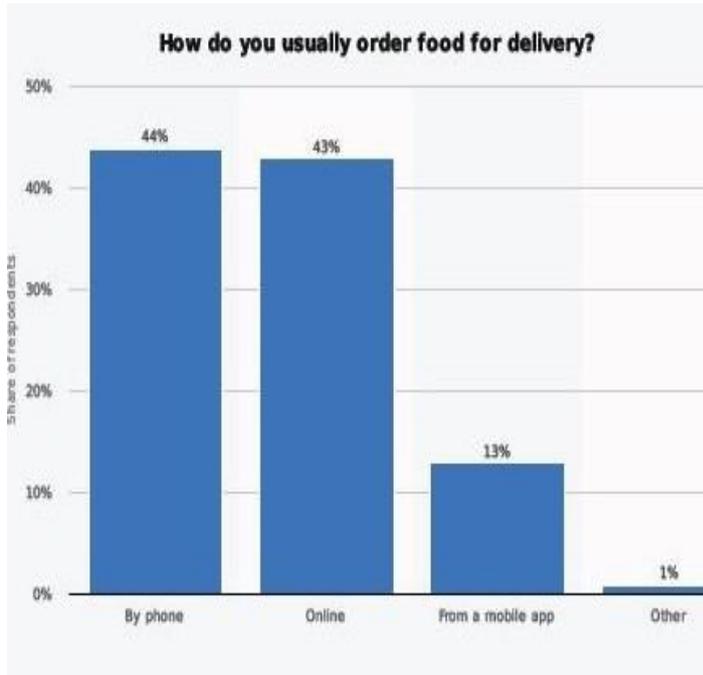


Fig 3 shows usage of food delivery apps

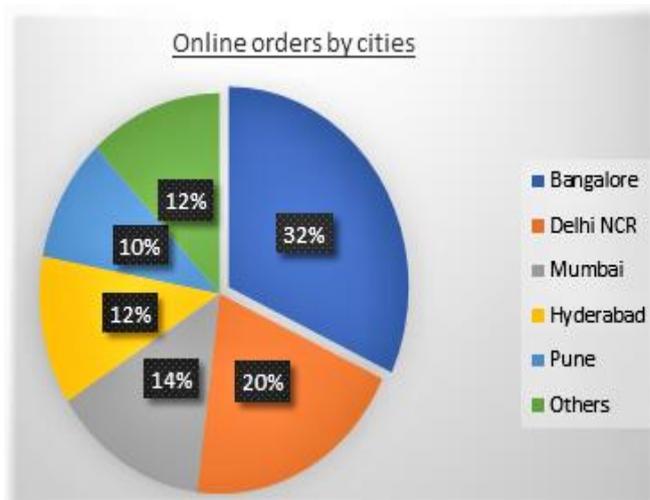


Fig 3.1 shows percentage of online food ordering in Cities

6. Future Scope

The current application design has functionalities which include setting up orders by the customers, accepting those orders by the vendors and assigning the delivery work to the delivery boys with respect to the vendors. The system also has the functionality of dynamically updating the orders as per the needs of the customers accordingly. In future versions of our proposed system the vendors may get the notifications about whether the customer may continue the subscriptions. The customers may also get the recommendations about their desired products and new offers which they order. This will/can be implemented using machine learning algorithms, python, data-analytics.

7. Conclusion

The proposed diary food product delivery application system reduces and eases manual work of order tracking and its analysis, it also helps retailer/distributor to easily predict properly and optimize price for sales and its distribution. Having an easy access to information and feedback for convenient communication among all people in proper supply chain management, efficient combination, management of different types of data that come from different and authenticate sources. In future, we plan to add the following features into the application. User can store important information related to friends, accounts, reminder and other information. He can send information which is stored with the help of e-mail, also he can use other means like G-Drive, Skype etc. He can search for the stored information through search bar that will help user for easy access. He will receive an immediate alert for reminder.

References

- [1] S. Brintha Rajakumari, T. Susendran “An Implementation of Diary Food Products using Android Application”,2019
- [2] Komal Mahangare,Rutuja Dhakne,Prerana Gayke “Web Base and Android Base Automatic Dairy System”, 2017
- [3] Gharge Amruta D., Gaikwad Ashwini B., Deshmukh Arti S., Kinika “Milk Dairy Automation Using „CAN Protocol”, 2016
- [4] N.Indumathi, K.Vijaykumar, “Well-organized Milk Distribution Monitoring System based on Internet of Things (IoT)”, 2018
- [5] Zhenlai You and Yang Jiao, “Development and Application of Milk-Run Distribution Systems in the Express Industry Based on Saving Algorithm”, 2014.
- [6] Yaroslava Zhukova , Yuriy Demikhov, “The Effects of Dairy Management on Milk Quality Characteristics”, 2016.
- [7] Anita Vinaik, Richa Goel, Seema Sahai, Vikas Garg “The Study of Interest of Consumers In Mobile Food Ordering Apps”, 2019
- [8] Dr. Mitali Gupta “A Study on Impact of Online Food delivery app on Restaurant Business special reference to Zomato and Swiggy”, 2019.
- [9] Jyotishman Das “CONSUMER PERCEPTION TOWARDS ‘ONLINE FOOD ORDERING AND DELIVERY SERVICES”, 2018.
- [10] Mrs I.Karthika, Miss. A.Manojanaranjani “A Study on the various food ordering apps based on consumer preference”, December 2019