

Doodh Dairy App

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Abstract: *Dairies are the most critical part of management used in societies and their surroundings. Milk plays a major role on the daily basis in our lives and offers a good source of nutrition like calcium, especially for children as well as older people. This research focused on the online Android application 'Doodh Dairy' for the sake of the Dairy owners and their customers. The development of this application 'Doodh Dairy' was aimed at addressing the problem which was, the dairy owner has to follow the traditional method to store dairy data of how much dairy products are sold daily to the customers. In COVID-19 we have to follow the rules of social distancing. In dairy, it is impossible to maintain social distancing as Customers have to be physically present at the dairy and due to this effect we have designed and developed an online dairy application. By doing a survey we came to know about the problem of Sellers, It is difficult for them to maintain data in hard copies and need to store a soft copy of data, So the system was thus developed to provide the solution to these problems and help its users to manage their work in a fast and friendly manner. Its feature includes, allowing sellers to update, record delete and save data. Our finding highlights the importance of the Doodh Dairy Application. We conclude with a discussion of the theory's implication for study and suggestions for future research.*

Keywords: Android Application, Android Studio

I. INTRODUCTION

The use of smartphones has significantly increased over that of laptop or desktop computers. Nowadays, customers want their applications to be mobile-friendly in every industry, including the financial services, medical care, and insurance sectors. The process by which application software is created for compact handheld devices like smartphones, tablets, etc. is known as mobile application development. Android currently holds the largest market share among mobile applications. The Android ecosystem as a whole got numerous advancements.

The IDE known as Android Studio was created exclusively for the building of Android applications. Numerous businesses are spending a lot of capital developing Android applications. As compared to other OSes, the Android operating system has undergone an incredible amount of updates, leading to a web-based service that is significantly distinct from the mobile operating system's first release. The standard IDE for creating Android applications is now Android Studio.

We achieved our project objective by calculating daily sales of dairy products. In this application, our system offers a mobile app that allows the user to place an order by simply following a few simple steps. From the dairy seller's list, the buyer can choose the dairy products they need. Customers can access the most recent prices for dairy products through our 'Doodh Dairy' app. The price of the products may be added, removed, or changed by the seller. The seller can also monitor the buyer's daily activities. The 'Doodh Dairy' application offers both online and offline payment methods. Here, the application offers balance sheets that display all payment information.

A diary's owner should be aware of the significant and careful effort required to maintain it because diaries involve a lot of paperwork. If their owners don't regularly check them and update their diary entries daily, diaries become useless. However, the 'Doodh Dairy Application' enables the automation of administrative procedures, reduces the use of paper documents, maximizes work time, and suggests a general turning point in terms of task management and compliance efficiency.

II. LITERATURE SURVEY

For the management of milk distributing activities, there are numerous applications already available. Every application has unique traits, drawbacks, and benefits. These applications (apps) were created by taking the requirements of a specific dairy owners.

[1] Field Survey provides us the knowledge of the requirements of the customers.

Ghandi et al. [2] presented the different methods, standards, and guidelines used in the "Mobile application development - a practical approach," which was also listed.

Khafa et al. [3] defined and examined mobile learning techniques from a technological and educational point of view

Li et al. [4] presented the layout of the client terminal.

Chou et al. [5] stated the necessity and essentiality of mobile technology in our daily lives.

III. METHODOLOGY

This paper is based on the available survey data. To understand the trends and patterns in the Indian dairy market, a thorough analysis of the literature was conducted. Survey data were investigated to find and explain different factors that affect a mobile application's acceptance in the context of Indian milk marketing, newer trends, and the future market. Sales reports that were made available from the survey reports served as the data sources.

It is a case study investigation. A "5" question questionnaire with predetermined interview questions was used for the milk seller. It is an honest attempt to shed light on this special type of dairy business. According to the survey, the vast majority of sample respondents are illiterate and adhere to traditional values. To select samples, the researcher took into account factors such as geographic location, age, buffalo population, experience level, turnover, etc. It is a case the study, so it has its own limitations regarding research methodology is a concern.

IV. METHOD

The dairy application that is the subject of this paper is called Doodh Dairy App. Java and XML are the languages used for the application's development on the 8.0 platform.

On the backend, SQLite is used.

The first step is to download Android Studio 3.0, which includes the Android SDK and Android Virtual Device.

The studio has been installed, and its environment has been set up, including the API level. The process for setting the API level is to start a new project by clicking on File>New>New Project. Enter the values listed below in the Create by selecting the "New Project" window. Name of the programme: "Doodh Dairy App".

The package name will be created using all of these data: package com. mini project.dairy_milk_application. This contains all of the information related to the development of Android; it is referred to as the "Android package file," which must be uploaded to the Google Play store. Enter the location where you want the application file saved last.

Developers must select Empty Activity as their project template if they want to create a new application with different requirements. Select Next. Accept the Main Activity (Default Activity) name. To finish, click. All of these are allegedly Android package files that you must upload to the Google Play store.

The path where you want to save will be entered in the final field. You must choose the blank activity from the activity module if you want to customise your application. You will add more items that you want to display to your application, similar to this Activity. 'activity_main.xml' and 'content_main.xml' are the first two files you'll see when you open your application in Android Studio. Both essentially accomplish the same task, but the activity_main.xml file contains the fundamental layout from when you chose Basic Activity. You can edit the content in content_main.xml.

Widgets are a group of options in Android where you can drag and drop objects. A rendering of the layout as it will appear on the screen rather than XML code is displayed in Android Studio. You must first open MainActivity.java in order to define the behaviour of your application. These tabs are located in the Application>Java section. Run your application once you've finished setting up your code or layout design.

On an Android virtual device known as an emulator, you should first test your application. The next step is to test your application on a real device after a successful test. In order to proceed, you must first connect your device via a USB cable to your development computer. Enable USB debugging on your device by opening the Developer option. You can

then select Run from the toolbar in Android Studio's toolbar after clicking the application module in the project window. You must choose your device in the Select Deployment Target window before clicking the OK button. On the connected device, Android Studio launches and installs the application. The application you created is currently running on your device, as you can see.

DESIGN MODULES OF THE DOODH DAIRY APPLICATION

The viewer side consists of a splash screen, registration screen, and buyer dashboard which includes a View profile, Buy product, and Balance amount. The categories' specifics are detailed below.

SPLASH SCREEN

The very first splash screen that appears when an Android application is launched blinks for 15 seconds. Application names are displayed on the splash screen alongside the logo. Basically, the Android Studio tool has an inbuilt feature for the splash screen, and after selecting the module, it opens the inbuilt design of the screen, which can be modified as needed.

REGISTRATION

Later on, this window will redirect us either to a Buyer login or to a Seller login. Here the system requires a database which can be used for storing or retrieving data, processing transactions, or various machine learning calculations. In our application, we have used four database tables, they are the Seller table, buyer table, product table, and purchase table. From this buyer and seller login page, the user can also register themselves. While registering, the system will store the information of the user in the buyer table or in the seller table (depending upon whether the user is the buyer or the seller). If the user has already registered themselves they can enter the user id and password in their specific domain, the system will check whether the entered data is valid or not (by reading the data from the buyer table or the seller table).

HOME SCREEN AND MENU SCREEN

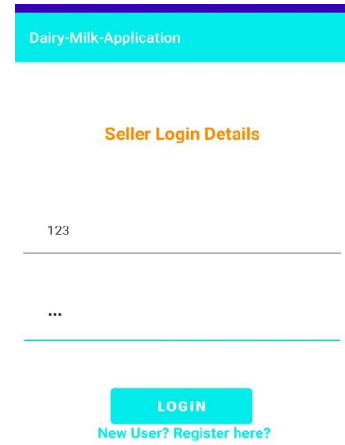
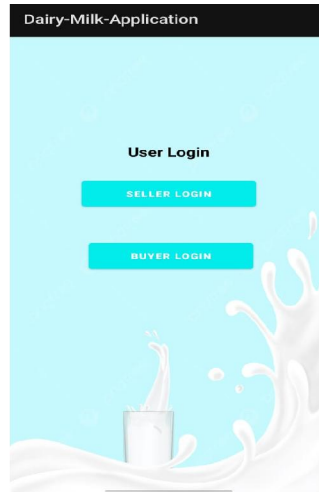
Moving further, if the user is here to buy dairy products then the system will redirect them to the dashboard which contains: View Profile, buy the product, balance amount and one important feature called 'recent purchase' which will show the recently ordered products so it will be convenient for the user to order the product again. In the 'view profile' section he/she can also update their information. In the Buy product, the user can start adding the product and the system will display the total amount. The 'Balance amount' screen will show the payment-related details which will be stored in the purchase table.

SELLER SIDE

The seller dashboard will display components named add product, view buyer, daily update, view product, Balance sheet, and orders. The seller can add the available dairy products in the add product section (Doodh, paneer Dahi, etc) which will be stored in the product table. View buyer and view product screens will read the data from the buyer table and product table respectively. If the end user i.e. seller wants to make some changes (altering the prices) in the already added product then he/she can click on daily update. The balance sheet is present in the system so that the seller will get daily, monthly and yearly updates about her/his sales. The order screen will display the requirements of the buyer which he/she has added in the Buy product section.

V. RESULT

The result of the project is fully functional Android application that allows Dairy owners and customers to maintain their daily dairy data. However, this project provides a strong foundation for future improvements and enhancements. Overall this project serves as a useful tool for milk sellers and customers to store their data in the on-line mode without the use of hardcopies.



Dairy-Milk-Application

Register

Name : Santosh Hiwale

Dairy Name : Santosh Dairy

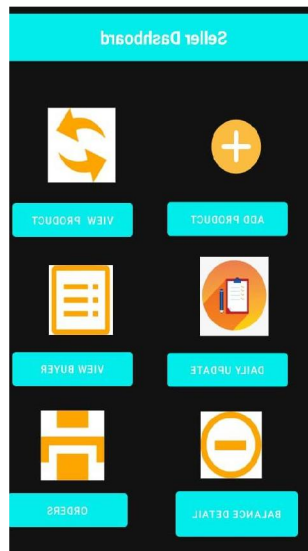
Address : Vardha

Mobile No. : 64257864

User ID : 123

Password : ...

REGISTER



Dairy-Milk-Application

Add New Product

3

Paneer

24

250

70

CM

ADD



Product_ID	Product Name	FAT	
1	Milk	30	1
2	Dahi	45	2
3	Paneer	250	2



Register

Buyer ID : 111

Buyer Name : John Clarke

Address : California

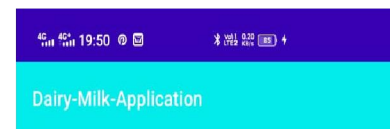
Mobile No. : 56423594

Requirements : Doodh

Payment Mode : Debit

Password : ...

REGISTER



Buyer_ID	Buyer Name	Mobile
111	John Clarke	56423594

Dairy-Milk-Application

Buyer Dashboard

View Profile

BUY NOW Buy Product

Balance Amount

Today's Purchase
900.0

Recent Purchase

Date	Product Name	Price
2023	Paneer	665.0

Dairy-Milk-Application

Purchase Order

Date: 20/04/2023 Shift: 07.47 PM

Balance	00	Fat Rate	24.0
Amount	250.0	In Stock	70

Select Product: Paneer

Rate: 250.0

Quantity: 2

Total Amount to be Pay: **1135.0**

ENTER AMOUNT: 900

PLACE ORDER

Product_ID	Product Name	Rate
1	Milk	30.0
2	Dahi	45.0
3	Paneer	250.0
3	Paneer	250.0

Dairy-Milk-Application

Outstanding Balance

665.0

Enter Amount

500

Dairy-Milk-Application

Balance Sheet

Buyer ID	Buyer Name	Amount
111	California	665.0

Grand Total : 665.0 Rs.

VI. CONCLUSION

In conclusion we have designed and developed user friendly an Android application, 'Doodh Dairy' for the dairy owners as well as their customers .This app allow the Dairy owners to See the buyers data ,in which customers list is mentioned and the product they ordered and also shows the outstanding amount .It also allow buyers to register themselves and Buy product from the dairy and the daily Milk ,dahi data etc.

[1] Field Survey

Name-_____

Dairy Name-_____

Phone number-_____

Sr.no Questions Yes No

1. Do you face any difficulty while maintaining the orders?
2. Are you satisfied with this process for managing your dairy?
3. Are your costumers satisfied with this process?
4. Are you using existing online dairy apps available on Play Store?
5. Do you feel of having an user friendly system for running your bussiness more smoothly?

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