

# **Android Application “DailyDairy”**

**A Major Project Synopsis Submitted to**



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towards partial fulfillment for the award of**

**Bachelor of Technology  
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**Under the Supervision of  
Prof.Kamal Sethi (HOD)  
Prof.Krupi Saraf**

**Submitted By**

**Aditya Deshmukh(0827CS181016)  
Aditya Purohit(0827CS181018)  
Aman Pratap Singh(0827CS181028)  
Anirudha Singh(0827CS181033)**



**Department of Computer Science and Engineering  
Acropolis Institute of Technology & Research, Indore**

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## 1. Abstract

This project idea includes the complete solution of a problem that is faced by daily distributors/vendors and consumers. With this solution we are solving the problem on a large scale and solving the major differences between users and consumers.

Our solution will solve the issues like purchasing, daily management, accounting and billing of daily essential products and grocery items. It helps in budget control by tracking the expenses.

## 2. Introduction of the Project

Difficult to keep a tab on your daily expenses? Need your own daily calendar to check out your daily expenses. “Ease On Essentials” is a general purpose app for every user. Users can keep track of their personal daily expenses on a touch. This application is a kind of digital and more elaborate version of ration card which records expenses, manages minor changes in real time, gives ability to overlook false delivery claims and makes payment online directly. Many features provided by our platform can make the daily problems faced by local distributors whom we deal with an offline subscription basis can be organised, updated and made convenient.

## 3. Objective

The main objective of this project is to automate the complete process of distribution of daily needed products. Our main intent of developing this application is to encourage the dairy industry. This will help to maintain daily day to day transactions. They need to maintain hundreds of thousands of records in paper books, ledgers so it helps in paperwork reduction. Also searching should be faster so they can find required details very easily and instantly. This will help the operator to track details of its suppliers, customers, and how gradually customers of every supplier are increasing or decreasing and what purchase they are making and their sales related details. It can be used for viewing reports on a daily basis and it will be a good initiative towards digital india campaign.

## 4. Scope

The scope of the project is to design and deploy a “*Daily Essentials Delivery system*”. The vision of this project is to develop and deploy an open source project to help out the service providers like distributors/vendors of daily supplies like milk, newspaper, etc. in organising their daily management and their delivery network. This application is built in such a way that it should suit distributors like Milk distributor, News Paper distributor, etc in future. We can integrate marketing tools, such as call, email, text, coupons, etc., to send special offers to the customers and motivate them to use the “Ease On Essentials” application. Also we can apply some machine learning algorithms on the data that we gather and can use it to gain some useful information regarding price change(increase/decrease), or rate of number of customers increasing or decreasing and show these results to the service providers, distributors so that they can work on these matters.

## 5. Study of Existing System

There are many existing systems that exist in the market but none are like ours and the disadvantages of their platform which we can counter can be easily understood.

Country delight<sup>[1]</sup>:

- The problem they addressed was low quality or adulterated milk and vegetables.
- Quality control of product, good model for a single company.
- Not available for local vendors and small scale businesses.
- It's built by a big dairy company and its app is to provide expensive pure products of their own company.

Bigbasket daily<sup>[2]</sup>:

- Problems addressed-delivery service of grocery.
- All grocery of all types in addition to all subscription services.
- Not available for local vendors and small scale businesses.
- It's built for a big and capable ecommerce platform with big fundings and only for products they produce.

Grofers<sup>[3]</sup>:

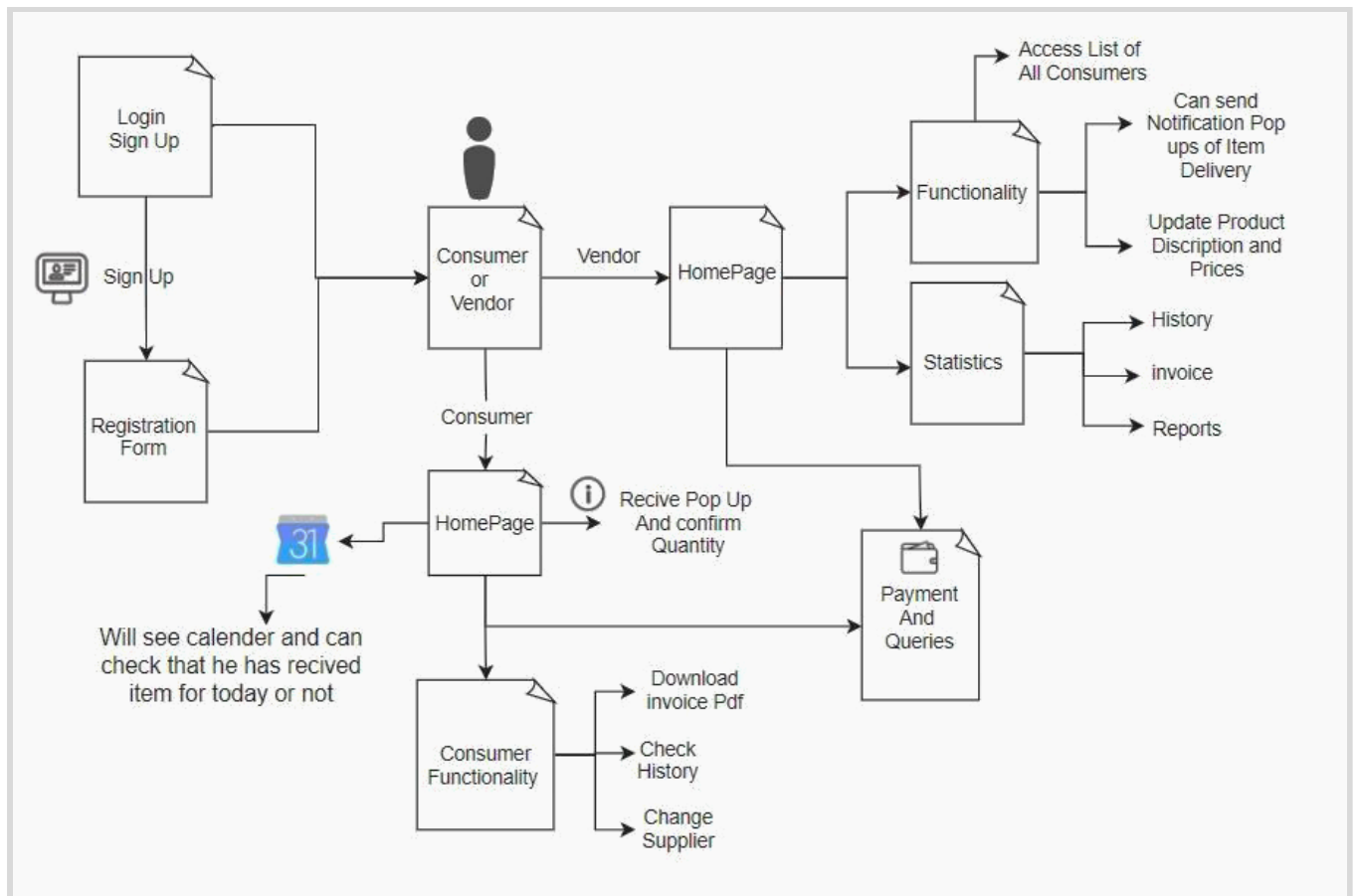
- Problems addressed-delivery service of grocery turned into an ecommerce platform.
- Sales mostly focus on fresh materials which come from their partners or self owned factories.
- Not available for local vendors and small scale businesses.
- It's built for a big and capable ecommerce platform with big fundings and only for products they produce.

## 6. Project Description

In this project we will be working on an android application that is solving the problem of consumer and vendor facing issues regarding quantity of different products & their payment. This application will mainly be focusing on development of a real time application using firebase as database and react-native as javascript based android development framework.

The application itself has many different features that will enable a consumer to make his life easy such as pdf generation, contacting, online payments, and statistical analysis of data using data analytics and machine learning algorithms and providing real time FAQs to have better user experience. By developing this application we are rapidly moving forward towards a very great initiative taken by the government to make our rural India more advanced with the Digital India program.

Using this flowchart we can understand the working of this android application in which we can see all functionalities given to the consumers and vendors.



**Figure :- Flowchart**

## 7. Methodology

According to research the best methodology for working on our android application project is “**Agile Methodology**”. This app development methodology is one of the most effective approaches to all software development.

Agile is based on the adaptive software development methods, whereas the traditional SDLC models like the waterfall model are based on a predictive approach. Predictive teams in the traditional SDLC models usually work with detailed planning and have a complete forecast of the exact tasks and features to be delivered in the next few months or during the product life cycle.

Complete project is divided into these 4 Modules :-

### 1. Frontend-

In this we will be working on the UX/UI designs to make application experience effective for both vendor and consumer. They will be having different user interfaces to interact with our application .We will be using **React-Native**<sup>[4]</sup> for the front end development that is a very popular javascript based android development framework.

## 2. Backend

In this module, we will be working on our backend to maintain and manage the data of both vendor and consumer, as the application is completely real time we will be using **Firebase Firestore**<sup>[5]</sup> provided by google as database management system which is a NoSQL database and real time to make our android application more efficient and resourceful.

## 3. Payment Integration-

In this module, we will be using **third party APIs** to integrate direct payment with records of each purchase which will bring convenience to both vendors and users .

## 4. Data Analysis-

In this module, we will be covering the statistical analysis of data which will be collected from the application itself. This will help us in gathering the necessary information from the data which is collected in the database to determine future sales and price prediction and will help in generating business strategies for different vendors out there.

### Functional Requirements -

- Need to have 2 account holders 1.User 2.Vendor
- Login :- User and vendor can login separately .

#### User :-

- Enable users to maintain records of daily and monthly product receiving and to use other services.
- Users can check and retrieve the past data of any day of any month of any year.
- Users can pay their monthly bills and track the price of a product with the help of graphical representation.
- Users can generate a pdf file to keep in their records.
- Complete app is real time when a vendor updates any item which has been delivered it will notify and show all details to the user.
- The user can contact the vendor any time.

#### Vendor :-

- Display the list of consumers on the screen.
- Vendors can add new items and details regarding the product or item for any particular user connected to him.
- Also provided the facility to check past product deliveries and payment history which reduces lots of paperwork and time.
- Vendors receive payment directly through the app.
- Vendors send notification pop ups confirming the quantity of the product delivered to the user.
- Vendors can update the product related description.
- Vendors can gather relevant information from users to contact them.

## Non - Functional Requirements -

Quality attributes that can serve as requirements are described below:

- Use of *third party and external apis* to make working of application efficient and resourceful
  1. Calendar api to maintain daily records.
  2. PDF generating api to make pdfs.
  3. Payment api.
  4. Phone api to contact.
- *Performance* : The application has better speed, faster retrieval of information with low cost.
- *Reliability* : The application will be very reliable as it will not interfere in the execution of other applications that are running simultaneously on the same system.
- *Availability*: The application will be freely available on the app store.
- *Security*: The application is fully secured as it has a login facility.
- *Maintainability*: The application is easy to maintain and regular updates will be provided.
- *Portability*: It is supported by the android operating system.

## 8. Expected Outcome

- This project will be an escalating step towards [Digital India Campaign](#).
- Paperwork reduction will be the most prominent outcome for nature.
- Instant & quick access will allow users to experience good quality of service.
- Product distributors can view their stats about their customers.
- Consumers can view reports anywhere anytime.
- Less human efforts on marking product delivery dates on calendars, calculating bills, etc. So this application will reduce the discordance between consumer and vendor regarding payments and dates.
- No stress on management of old data.
- Since billing is automated so error probability will be much less and efficiency of business will grow rapidly.

## 9. Resources and Limitations

The requirements of the resources for designing and developing the proposed system are as described below:

### 9.1 Hardware Requirements -

- Android Device
- System for maintenance

## 9.2 Software Requirements -

- React Native :- React Native is a Javascript based framework for writing real, native rendering mobile applications for iOS and Android. It is based on React, Facebook's Javascript library for building user interfaces, but instead of targeting the browser, it targets mobile platforms.
- Firebase :- Firebase is a toolset to build, improve, and grow your app and it helps you to cover a large portion of the services that developers would normally have to build themselves, but don't really want to build because they'd rather be focusing on the app experience itself.
- Visual Studio Code :- It is an IDE with less features than the actual Visual Studio and it could be used on Linux and Mac platforms.

## 9.3 Limitations:

- Requires network access.
- May stop due to network problems.
- Can only be used through android smartphones.
- Users and vendors should be educated enough so that they know how to operate a smartphone & use the application.

## 10. Conclusion

In 2021, where all the sectors of the industry are turning towards the digital ecosystem and big tech companies are taking over by controlling the whole chain of business from manufacturing, sales, small vendors like milkman, newspaper, vegetable sellers and many more small scale businesses suffer due to inadequate knowledge of creating digital platforms. To improvise their services this app can be a game changer by giving a one stop solution to both the vendors and their customers. This application would help them to catch up and have a competing and even surviving the current quickly advancing scenario of vending and delivery services. In making this project we will be learning how to coordinate with our team members and try to solve a real life problem and brainstorm to bring an effective solution to it and create an app that mobilizes this industry to the digital world.

## 11. References

- [1]-<https://www.bigbasket.com/bbdaily/>
- [2]-<https://grofers.com/>
- [3]-<https://countrydelight.in/>
- [4]-<https://reactnative.dev/docs/getting-started>
- [5]-<https://firebase.google.com/docs>