

Baker's Company (An E-commerce Application)

Shivani Baliyan¹, Vishnu Sharma^{1,*}, Abhishek Rai¹, Vaibhav Panwar²

Abstract

Bakery industry is playing a very important role in the lives of people who like to eat baked foods like cakes, pastries, cookies etc. The market of bakery industry is categorized as cafes, restaurants that serve coffee, tea and baked food to customers who wish to consume them. As nowadays technology plays a vital role in our lives to make our life easier, the use of mobiles operating systems like iOS and android is becoming very significant. Nowadays, we can use a bakery product delivery application that provides a solution to a large number of consumers and with the help of bakery application we can order the bakery products online and can get it at our doorstep without any efforts. Based upon application of bakery market, there are supermarkets, cafes and online delivery of bakery products with the help of Bakery app. This research work is about the bakery application we developed to get the bakery items ordered online. The application Baker's Company helps bakery shops and home bakers to automate bakery selling online. Home bakers and passionate people can sell their bakery items and products on this application.

Keywords: E-commerce app for bakery items, android app to enhance home bakers, order online bakery items, online platform for home bakery, android app as college project, android app to automate selling of bakery items

INTRODUCTION

Nowadays, in this era of technology and computing, smart phones, tablets, laptops and other gadgets are becoming a very important part of our day-to-day life [1]. In this research work, we develop a bakery application that provides a platform for consumers to order the bakery products online. The objective of this research work is to provide a separate solution for the bakery industry to get the bakery products delivered online. There is a huge consumption of bakery products due to its high nutrition value. In the processed food industry, the Indian bakery industry is one of the biggest sections in the country. Due to the use of new technology and tends to be seasonally led that what is manufactured. The industry has gone through many changes due to this rapidly increasing technology. In this rapidly developing world, the internet and the information technology are emerging as solution to every kind of problem. According to a research that aims to determine the consumer behavior on

online food delivery application to determine market strategy, it was found that there was increment of consumers in the online food delivery application as compared to self-shopping [2, 3].

*Author for Correspondence

Vishnu Sharma

¹Student, Department of Computer Science and Engineering, IILM College of Engineering and Technology, Greater Noida, Uttar Pradesh, India

²Assistant Professor, Department of Computer Science and Engineering, IILM College of Engineering and Technology, Greater Noida, Uttar Pradesh, India

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The application Baker's Company allows users to check for various bakery products available at the online store and purchase online. There is no need of physical involvement of the consumers as they can get their orders at their doorstep by simply ordering it online through our app. The application shows the cafes and bakery shops of nearby locality to the consumers. Also, Baker's Company will play a great role for the home bakers. The home bakers will also be able to register on the app and could deploy their bakery items on the app so that the

consumers could get the items on a reasonable price. The application will provide a platform for home bakers who will be able to sell their bakery items on their own. The buyers and the customers will be directly connected through this application. According to a study by Sethu and Saini, the online bakery products or online food purchasing helps the people in managing their time better and helps in the ease availability of their favorite bakery products at any time [4, 5].

LITERATURE REVIEW

E-commerce application is rapidly growing worldwide; and the bakery industry is also showing continuously a steady growth and providing good services to users which is the main aspect of an online delivery application [6, 7]. Baker's company is an application that connects sellers to the wide range of consumers and provides a best and separate platform for all the bakery related shops and cafes. Mobile Bakery application offers effective searches for restaurants and cafes and provides a platform to order from them online. It explores each restaurant in the nearby locality, view menus, images, contact numbers, headings, surveys, and various information of the café and restaurant before placing an order. The application is highly informative app, easy to access and user interface is totally user friendly. The application gets a comprehensive view of a variety of products. The users can easily get registered with the application.

The features are added for product promos, cart promos and outlets distribution. We build an Android-based online food delivery application as Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project [8, 9]. We designed the application on the basis of waterfall development method which is based on Android API Inventor Framework.

Authentication and Authorization

The application is protected with user login to keep the sensitive data safe. User can login on the app with their login id and password. If the person is not registered with the app, he/she will have to sign Up with the app to generate login id and password.

Offline Support

Whenever client goes offline, Baker's Company App shows offline screen.

Scalable

Scalability means the application can be used by the multiple users at a single time on their respective platforms. The application includes a scalability setup for testing how the application scales to multiple users.

Architecture

The architecture of the Baker's company application is explained by the Figure 1 The application Baker's Company is designed using Android and is connected with the server using application server. Frontend is designed by using XML in android studio and is connected with the Firebase database to store all the files and data, and in the Firebase Realtime database is used; and to store the images, logos etc., Firebase Firestore is used.

EXPERIMENTAL WORK

This app provides detailed information on bakery products and offers provided by the restaurants and bakers on various bakery products. The users can easily get registered on the app by the simple signup option. The bakers will be able to login and register with their id and password to manage their profile as sellers. They will add their bakery items in their profile section with category and price of the item mentioned. There will also be option for adding items of different flavours. The buyers will be connected to the sellers where the buyer will choose the cake and then add to cart. When the buyer will place an order, the seller will be notified, and they will do the further delivery.

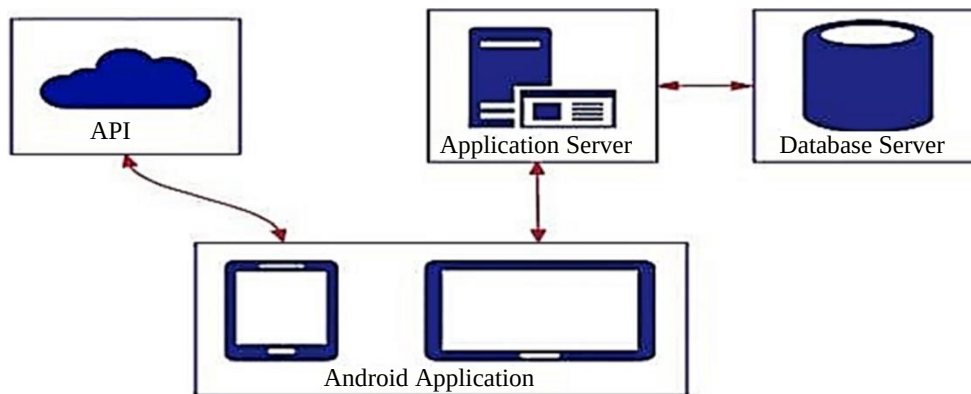


Figure 1. Architecture of Banker's application.

Users will be able to manage their profile that will contain all the order details and interests of the customers with the help of this app. One can add his/her favourite bakery products in the cart and get frequent notification related to the specific product. Users can get notified about the charges of the bakery products and can also get the information of the offers provided by the seller to the consumers. With the help of this bakery application, the consumers and users can check the status of their order placed time to time. The user's history can also be fetched to check the previous order details on the app. If someone wants to get a view of the bakery products, their price and flavours, it will be possible with the help this bakery mobile app. So, after downloading this bakery app (Baker's Company) users can enjoy their favourites bakery items at their home with the single finger tap only.

Baker's Company Application provides a platform for users to check for various bakery products available at the online store and purchase online. The application consists of list of bakery products displayed in various categories of different bakery with internal categorization of different flavours and price. The user may browse these items as per categories with restaurants or bakery name. If the user wants to buy a bakery product, he may add it to his/her shopping cart. Once user wishes to checkout to place the order, he must register on the site first, if he is not registered. He can then login with the same id password every next time. Now the consumer may pay through a Paytm, credit card or debit card or cash on delivery. It helps Bakery shops and home bakers to automate bakery selling online. As the demand of home baked item is increasing [10, 11] we will provide a platform for home bakers who will be able to sell their bakery items on their own. The buyers and the customers will be directly connected through this application. The customers will order the bakery items of their choice. The delivery facility will be provided by the buyers only. The block diagram of every component of the application and its flowchart is represented by the given two Figures 2 and 3.

Software and Hardware Requirements

We need the following tools to develop the Baker's Company Application. Here, we use android studio to make the entire frontend. We are using Firebase Database for storing the tables and all the data of every component of the app and Firestore is used for storing images, logos, etc.

Software Requirements

- Windows and above.
- Firebase.
- Android Studio.
- Android OS.

Hardware Components

- Processor: i3 (or above).
- Hard Disk: 5 GB.
- Memory: 1 GB RAM.

RESULT

This application contains:

- It helps Bakery shops and home bakers to automate bakery selling online.
- We will provide a platform for home bakers who will be able to sell their bakery items on their own.
- The buyers and the customers will be directly connected through this application.
- The customers will order the bakery items of their choice.
- The delivery facility will be provided by the buyers only.

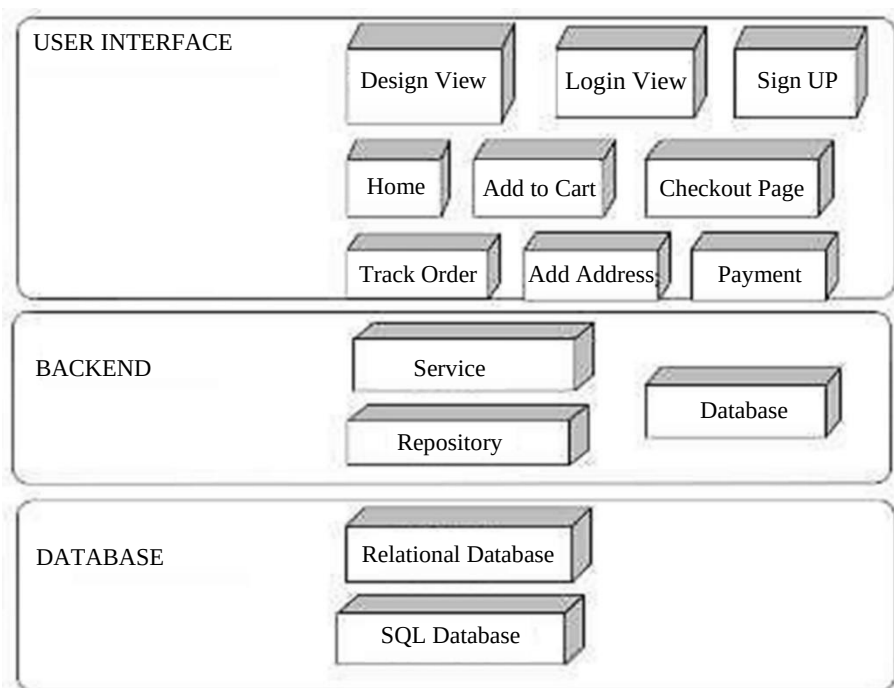


Figure 2. Block diagram of database for software.

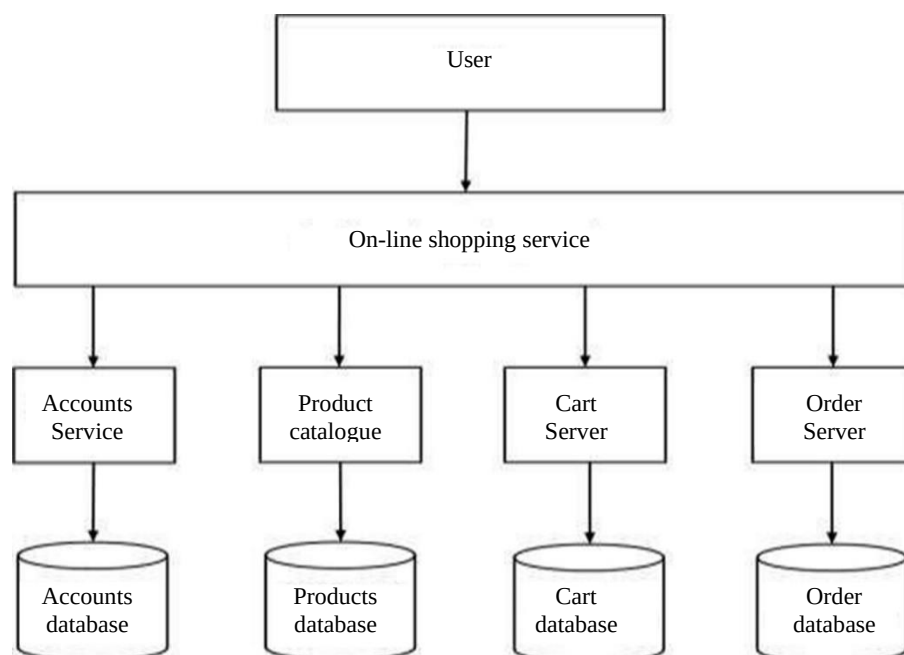


Figure 3. Flowchart for banker application.

User Registration

Users need to register on the system and then only the user will be able to explore the application.

User Login

Every user needs to provide their phone and password to check out the products.

Home Page

After being logged in, the users can view products as per their cities and locality. On clicking on the products, the user will be redirected to products' details section.

Add to Cart

In products' details section, there will be an option for adding the product to cart.

Order Confirmation

User will be able to place an order by providing the personal details like address and other instructions.

Custom Cake

Users can place an order as per their need and choice.

- The sellers will be able to login and register with their id and password.
- They will add their bakery items in their profile section with category and price of the item mentioned.
- There will also be option for adding items of different flavors.
- The buyers will be connected to the sellers where the buyer will choose the cake and then add to cart.

When the buyers place an order, the seller will be notified, and they will do the further delivery.

CONCLUSION

Bakery industry is playing a very important role in the lives of people who wish to eat baked food. Bakery industry is showing the upward graph of its growth day by day. There are a large number of cafes and restaurants from where we get the bakery food items. Some people bake bakery items like cakes, biscuits, pastries, etc. at their home also. We are living in the age of digital workplace, where everything is supposed to have an online interface. As this is the era of technology, technology plays a vital role in our lives to make our life easier. So, with the help of mobile app "Baker's Company" we can order the bakery products online and can get it at our doorstep easily and quickly. Baker's Company Application provides a platform for users to explore various products related to bakery like cake and cookies which are available on our application. We will provide a platform for home bakers who will be able to sell their bakery items on their own. The application connects a wide range of sellers to the consumers. It will be the best and separate platform to connect all the bakery related shops only. The application Baker's Company helps bakery shops and home bakers to automate bakery selling online. Home bakers and passionate people can sell their bakery items and products on this application. The application will provide a platform for home bakers who will be able to sell their bakery items on their own. It will provide opportunities to the people to start their career as bakers as the application will connect them to the consumers easily.

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