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RESEARCH ARTICLE OPEN ACCESS

Make Purchase Easy - A Purchase Recommendation Android Application

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ABSTRACT
The proposed android application aims to enhance the offline shopping experience by recommending shops based on the product and location of purchase. The app will utilize user preferences and location data to provide relevant shop recommendations to users. Once a user selects a shop, they can browse through the available products and place an order directly through the application. The app will also include features for shop owners to manage their inventory and orders. The goal is to streamline the shopping process by providing recommendations and enabling seamless purchasing of products while also supporting local businesses and communities. Additionally, the app will allow users to view their purchase history, track their orders, and provide feedback about the product quality and user experience.

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I. INTRODUCTION

Make Purchase Easy is an application that recommends shops based on user location and product needs. It allows users to place orders for products from any shop within their selected location, with shopkeepers receiving a list of items ordered. The application provides a platform for shopkeepers to add products, set prices and manage inventory. Customers can search for products in a specific city, and the application shows recommended results with the lowest price and highest quality.

II. PROBLEM STATEMENT

The rise of online shopping has brought with it various challenges such as trust and security issues, difficulty in assessing product quality, shipping and delivery problems, and lack of personalized customer service. Offline shopping, on the other hand, offers the advantage of physically inspecting products, personalized assistance from sales associates, and a more secure and trusted environment for purchases. However, it can also be time-consuming and costly. To help consumers reduce costs and make more informed purchasing decisions, a recommendation system has been developed that suggests value for money products available in the desired location and nearby areas. The system takes into consideration price, quality, popularity, and availability to provide personalized recommendations to users

III. OBJECTIVE

- Our system recommends the best shops based on quality and price.
- It considers user location and product requirements for personalized recommendations.

- Users can save time and money by purchasing high-quality products at the best prices.
- The intuitive user interface features a search bar, product filters, and a shopping cart for easy navigation and purchasing.

IV. OUTCOMES

Our Android application is designed to help users save money and time by recommending the best value for money products available in a particular location. Users can search for products and get recommendations from shops that provide the best value for money. The shopkeeper can add items and indicate if they are out of stock, while also being notified of any shortages in inventory. The application provides a two-step verification process for improved security, and users can provide feedback to help the shopkeeper improve the quality of the products. The application also allows users to rate their experience and the quality of the products purchased. Overall, the application provides a user-friendly interface for users to easily search, purchase, and rate products.

V. REQUIREMENT SPECIFICATION

5.1. HARDWARE REQUIREMENTS

Client Node:

1. Processor: Snapdragon 636 and above, MediaTek Helio P35 and above, Exynos 7420and above.
2. Speed: 1.1 GHz.
3. RAM: 2 GB (Minimum)
   4GB (Recommended).
4 Disk space: 2 GB (Minimum)
   4 GB (Recommended).
5 Mobile: Android- KitKat (Minimum).

Server Node:

1. Processor: intel i5 and above.
2. Speed: 3.6 GHz.
3. RAM: 8GB (Minimum)
   16GB(Recommended).
4. 4. Disk space: 512GB(Minimum)
   1TB(Recommended).

5.2. SOFTWARE REQUIREMENTS

Client Node:

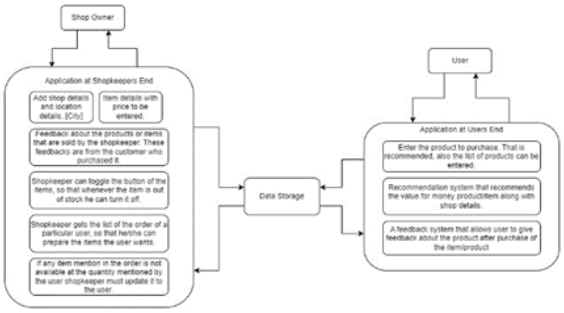
1. Operating System: Android (Handset).
2. Coding Language: Java 1.7.
3. Tool Kit: Android 4.4 KitKat

Server Node:

1. Coding Language: Java 1.7.
2. IDE: Android studio tool Kit.
3. The Java Development Kit (JDK).
4. Firebase Authentication, Firebase Realtime Database, Firebase Storage, Firebase, Firestore Database.

VI. SYSTEM DESIGN

The proposed e-commerce platform connects users with local shopkeepers, allowing users to search for products based on location and recommending the best shops based on price, quality, and value for money. The system has a user-friendly interface that allows users to add products to their shopping cart, and provides a feedback mechanism for users to rate the quality of products and the overall shopping experience. The application is designed to be simple and easy to use, with no complex actions required. The platform is intended for use by both users and shopkeepers, providing a convenient and efficient way to manage inventory and place orders.

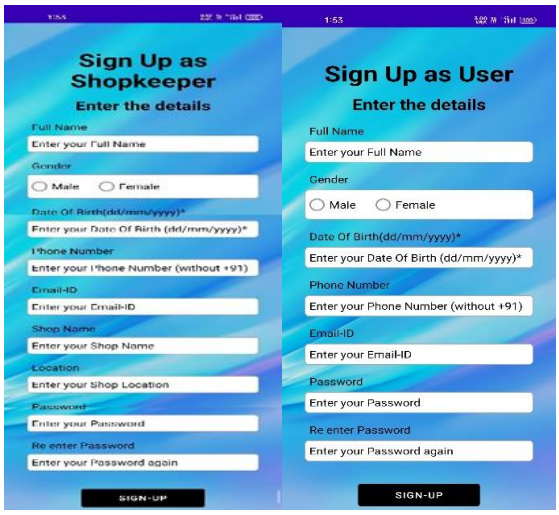


Block Diagram of the proposed system

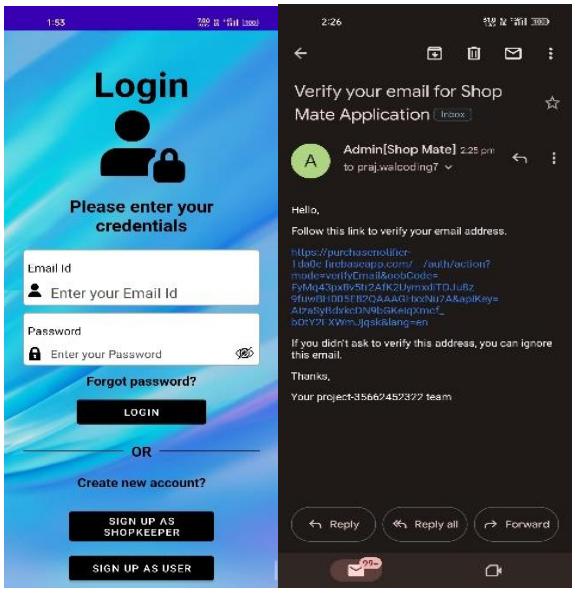
The proposed system uses a recommendation system to suggest the best value for money products to users. The system takes into account various factors such as price, quality rating, location, and product availability to recommend the best shop to purchase the product. The recommendation system is designed to provide users with good quality products at a reasonable price, promoting customer satisfaction and loyalty.

Recommendation system Design

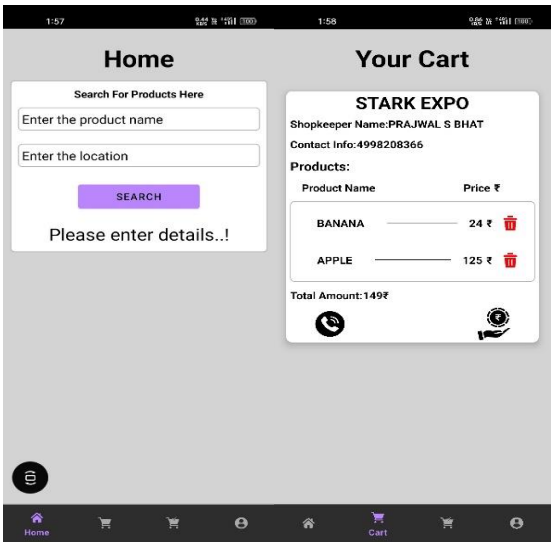
VII. IMPLEMENTATION



User Sign up pages

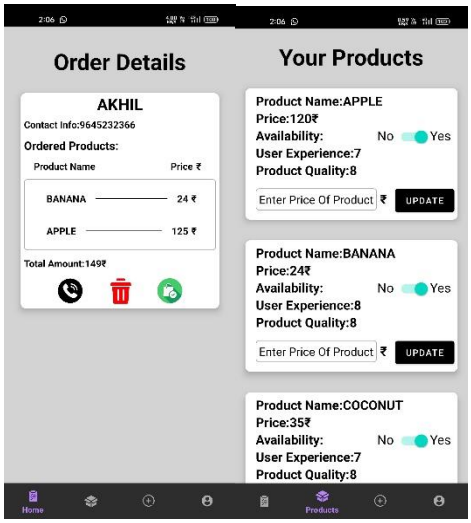


User Login Page and Verify Email message.

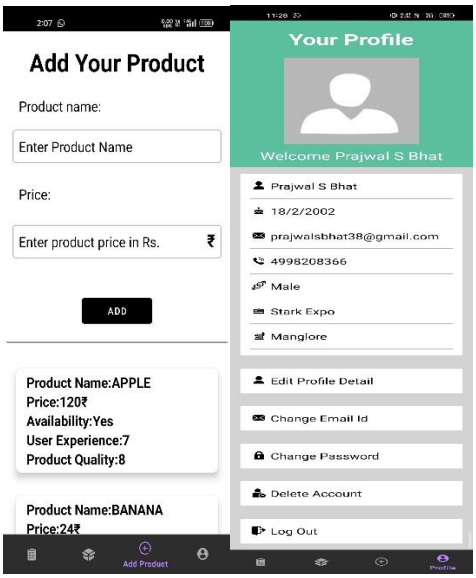


User Home and Cart

User Purchased Product Page



Shopkeeper Home and Products Page



Shopkeeper Add Products and Profile Page

VIII. CONCLUSION

The proposed e-commerce platform is designed to provide a convenient and efficient solution for both users and local shopkeepers. The system offers features such as inventory management, pricing and availability updates, and an advanced recommendation system that considers price, quality, and value for money. The system's user-friendly interface and advanced algorithms make it easy for users to find the best products at the best prices, while also allowing shopkeepers to manage their inventory and orders. The feedback mechanism ensures that the shopping experience is always improving. The system promotes and supports the growth of small businesses and local economies by connecting users with local shopkeepers. It is scalable and customizable, making it adaptable to the needs of different markets and industries. The proposed system has the potential to revolutionize the way people shop and make a significant impact in the world of e-commerce

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