Tastico: Food Price Comparison App

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Abstract -*The Food Price Comparison App is designed to help users compare food prices across popular online delivery platforms such as Zomato and Swiggy. With the increasing use of these platforms, users often need to switch between multiple applications to find the best deals, which can be time-consuming and inconvenient. The proposed system addresses this issue by providing a unified platform where price comparison becomes quicker and more efficient.*

The application is developed using a structured dataset containing information about food items and their corresponding prices. This allows users to view and compare different options in a clear and organized manner. The system includes key features such as a searchfunctionality, a user-friendly interface, and a chatbot that assists users with queries and navigation. By integrating these features into a single platform, the application simplifies the decision-making process and enhances user convenience.

Overall, the Food Price Comparison App demonstrates how mobile applications can be utilized to improve the food delivery experience. It also provides a foundation for future enhancements, such as real-time data integration and advanced recommendation features.

Key Words:Food price comparison, Online food delivery, Zomato, Swiggy, Price transparency, Mobile application, Firebase, Chatbot, Artificial Intelligence, User experience, Cost optimization

1. INTRODUCTION

The use of online food delivery services has increased significantly in recent years, mainly due to platforms such as Zomato and Swiggy. These platforms have changed the way people order food by providing access to a wide variety of restaurants, menus, and pricing options directly through mobile devices. While this has improved convenience, it has also introduced certain challenges for users.

One major issue is the difficulty in comparing prices for the same food item across different platforms. Users often need to switch between multiple applications, search for the same item repeatedly, and manually compare prices. This process is time-consuming and inefficient, making it difficult for users to quickly identify the best available option.

To address this problem, the proposed Food Price Comparison App provides a unified platform where users can compare food prices from multiple delivery services in one place. The system presents information in a clear and structured format, allowing users to easily view and evaluate different options without the need to switch between applications. This significantly reduces effort and improves the overall decision-making process.

The application is developed using a structured dataset of food items and their corresponding prices. It includes key features such as a search functionality, a user-friendly interface, and a chatbot that assists users in navigating the system and resolving queries. Additionally, the application allows users to manage their basic information and location, which helps in delivering a more personalized experience.

Overall, the Food Price Comparison App aims to simplify the process of comparing food prices by integrating all relevant information into a single platform. The system not only improves efficiency but also provides a scalable foundation for future enhancements, such as real-time data integration and advanced recommendation features.

2. LITERATURE REVIEW

Recent studies highlight the importance of comparison systems in improving user decision-making processes. These systems reduce the effort required to evaluate multiple options and present information in a clear and structured manner, thereby helping users make more informed choices [1]. Comparison-based platforms are widely used in domains such as travel, e-commerce, and service booking, where users benefit from quickly identifying the best available options. However, in the domain of online food delivery, there are limited systems that provide integrated price comparison across multiple platforms.

This limitation creates challenges for users, as they are required to manually compare prices across different applications. Additionally, many existing systems lack intelligent assistance features, such as recommendations or guided suggestions. In the absence of such support, users often rely on habitual choices rather than exploring more cost-effective or suitable alternatives. This highlights the need for systems that not only provide comparison but also assist users in decision-making.

In recent years, Artificial Intelligence (AI) has been increasingly integrated into modern applications to enhance user experience and personalization. Technologies such as chatbots, recommendation systems, and virtual assistants are widely adopted to provide real-time assistance and improve interaction [2]. These features enable applications to deliver more personalized and efficient services, making them easier and more engaging to use.

Therefore, combining comparison systems with AI-based technologies presents a promising approach to improving food delivery services. By integrating price comparison, recommendation support, and chatbot assistance, the proposed system aims to provide a more efficient and user-friendly platform. This approach can reduce user effort, improve decision-making, and enhance the overall experience of online food delivery systems.

3. SYSTEM DESIGN

The Tastico Food Price Comparison App is designed to provide a reliable, scalable, and user-friendly platform for comparing food prices across multiple delivery services such as Zomato and Swiggy. The system follows a modular architecture, where each component is responsible for a specific function, ensuring better performance and maintainability.

The application consists of multiple modules, including the price comparison module, user management module, database module, and chatbot module. The price comparison module enables users to view food items along with their corresponding prices from different platforms in a structured format. This allows users to easily compare options and select the most suitable one.

The system uses a structured dataset to store food items and pricing information, which ensures fast and consistent data retrieval. For backend services and data storage, Firebase is utilized to manage user accounts, profile data, and chatbot interactions. This ensures that user information is securely stored and easily accessible when required.

The user management module handles registration, login, and profile management functionalities. It ensures that only authorized users can access their accounts, thereby maintaining data security. Additionally, users can update personal details such as name and location, enabling a more personalized experience within the application.

To enhance user interaction, the system integrates a chatbot that assists users with navigation and basic queries. The chatbot improves usability by providing quick support and guidance, making the application more interactive and accessible.

The overall system is designed to be flexible and extensible, allowing new features to be added without affecting existing functionalities. The structured architecture and organized data flow ensure smooth performance even with increasing data and user activity.

In summary, the Tastico application provides a centralized solution for food price comparison, reducing the need to switch between multiple platforms. By combining structured data, secure user management, and interactive features, the system enables users to make quick and informed decisions efficiently.

4. FUNCTIONALITY OF THE SYSTEM

The Tastico Food Price Comparison App is designed to help users efficiently search, compare, and select food items from online delivery platforms such as Zomato and Swiggy. The application integrates multiple features that work together to provide a smooth and user-friendly experience.

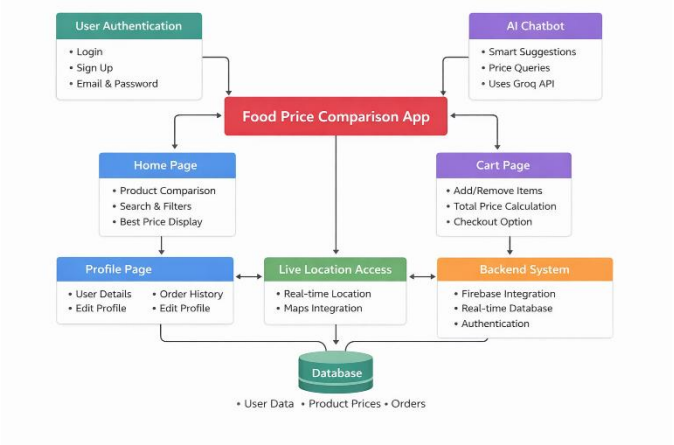
One of the core functionalities of the system is user authentication. The application allows users to create an account and securely log in using Firebase Authentication. This ensures that user data is protected and that each user can have a personalized experience within the application. The system also provides an efficient search functionality that enables users to find specific food items by entering keywords into a search bar. The application processes the input and displays relevant results, saving time and improving usability. In addition to search, users can browse food items through categorized lists, allowing them to explore options without requiring specific queries. The primary functionality of the application is price comparison. The system displays prices of the same food item across multiple platforms in a structured format, enabling users to easily identify the most cost-effective option. The comparison is based on a pre-defined dataset of food items and prices, ensuring consistent and reliable results, even though real-time data integration is not currently implemented.

The application also includes user profile management features, allowing users to update personal information such as name, email, and location. This helps in providing a more customized experience and improves overall usability.

To further enhance interaction, the system integrates a chatbot that assists users with navigation and basic queries. The chatbot provides quick responses and guidance, making the application easier to use, especially for first-time users.

Firebase is used as the backend service to manage user data, including authentication details, profiles, and chatbot interactions. Since the application relies on a static dataset for price comparison, Firebase is primarily used for handling user-related data rather than real-time pricing information.

Overall, the Tastico application combines these functionalities to provide a centralized platform for food price comparison. By integrating search, comparison, user management, and chatbot assistance, the system reduces user effort and enables faster and more informed decision-making.



5. DATABASE DESIGN

The database design of the Tastico Food Price Comparison App is structured to efficiently store and manage both user data and food-related information. The system primarily uses a pre-defined dataset for food items and pricing instead of relying on real-time external data sources. This approach simplifies the system design and ensures consistent performance, while still providing meaningful comparisons to users.

The application utilizes Firebase as the backend database for storing and managing user-related data. Firebase provides a reliable and scalable solution for handling user accounts, profile information, and chatbot interactions. The database is organized into multiple collections, allowing different types of data to be stored separately while maintaining logical relationships between them.

One of the main components is the User Collection, which stores information about registered users. This includes fields such as user ID, name, email address, phone number, and location. Each user is assigned a unique identifier, which is used to manage authentication and link related data across the system. Firebase Authentication is used to securely handle user registration and login processes.

Another important component is the Food Items Dataset, which contains information about the food items available in the application. This dataset includes attributes such as food ID, name, category, and description. Since the application uses a static dataset, this information is pre-defined and serves as the primary source for displaying and searching food items.

The Price Comparison Dataset stores pricing information for each food item across multiple platforms such as Zomato and Swiggy. Each entry links a food item to its respective prices on different platforms, enabling the system to present side-by-side comparisons efficiently.

Additionally, a User Profile Collection is maintained to allow users to manage and update their personal information. This includes details such as name and location, which can be used to enhance personalization within the application.

The relationships between these collections are maintained using unique identifiers. For example, the user ID connects user account data with profile information, while the food ID links food items with their corresponding pricing data. This relational structure ensures dataconsistency and enables fast retrieval of information.

Overall, the database design is simple, efficient, and scalable. By combining Firebase for user data management with structured datasets for food and pricing information, the system achieves reliable performance while remaining easy to maintain. The design also allows for future enhancements, such as integrating real-time data sources or expanding support to additional food delivery platforms.

6. Problem Statement

The increasing use of online food delivery platforms such as Zomato and Swiggy has provided users with access to a wide variety of food options. However, it has also introduced a significant challenge in comparing prices for the same food items across different platforms.

Currently, users are required to open multiple applications and repeatedly search for the same food item in order to compare prices. This process is time-consuming, inefficient, and inconvenient, especially when users want to make quick decisions while ordering food. The lack of a unified system makes it difficult for users to identify the most cost-effective option.

Most existing food delivery platforms are designed primarily for ordering rather than comparison. As a result, users do not have access to a centralized platform where they can view and evaluate pricing information from multiple sources simultaneously. Additionally, many platforms lack intelligent assistance features, which further complicates the decision-making process.

Therefore, there is a need for a system that can integrate food price information from multiple platforms into a single interface. The proposed Tastico Food Price Comparison App addresses this issue by providing a

platform where users can search, browse, and compare food items efficiently. The system aims to reduce the time and effort required for price comparison while improving the overall user experience.

7. Advantages

The Tastico Food Price Comparison App offers several advantages that improve the overall user experience in online food ordering. One of the primary benefits is the reduction in time and effort required to compare food prices. Instead of switching between multiple applications such as Zomato and Swiggy, users can view all relevant price information in a single interface. This significantly simplifies the decision-making process and reduces user effort.

Another key advantage is improved price transparency. The system presents food prices from different platforms in a clear and structured format, allowing users to easily identify the most cost-effective option. This is particularly useful for students and budget-conscious users who want to manage their expenses more efficiently.

The integration of a chatbot enhances the usability of the application by providing basic assistance and guidance. Users can interact with the chatbot to navigate the app, ask simple queries, and understand available features. This makes the application more user-friendly, especially for first-time users.

Additionally, the application provides a personalized experience by allowing users to manage their profiles and location information. This helps in presenting more relevant data and improves overall usability.

From a technical perspective, the use of technologies such as React Native for the frontend and Firebase for backend services ensures that the application is scalable, secure, and easy to maintain. The modular design of the system also allows for future enhancements, such as integration of real-time data sources and advanced recommendation systems.

Overall, the Tastico application improves efficiency, enhances user convenience, and provides a centralized platform for food price comparison, making it a useful tool for modern food delivery users.

8. Future Scope

In future, the Tastico application can be enhanced by integrating real-time APIs from platforms such as Zomato and Swiggy to fetch live food prices and availability. This would allow the system to provide more accurate and dynamic comparisons based on current data, including delivery charges and offers. Additionally, advanced features such as personalized recommendations, real-time notifications, and improved AI-based assistance can be implemented to further enhance user experience and system efficiency.

Fig-7.1: First page

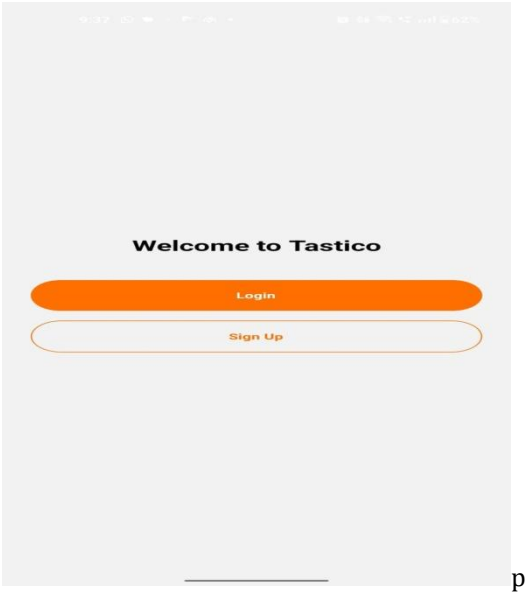


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Fig-7.2: Welcome page

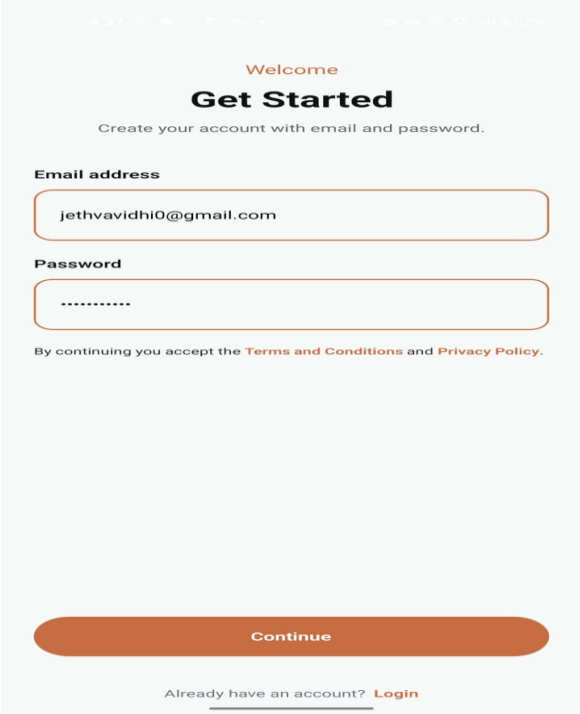

Fig-7.3: Create Account

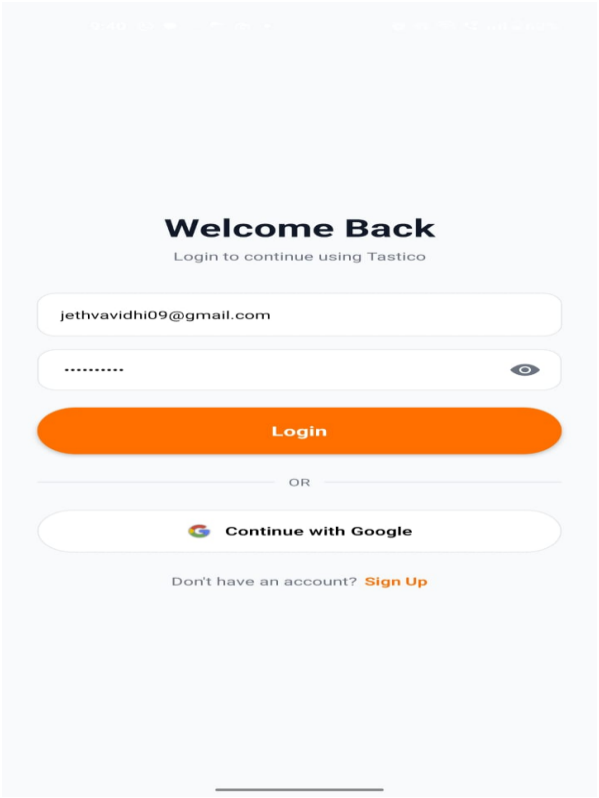

Fig-7.4: Login Form

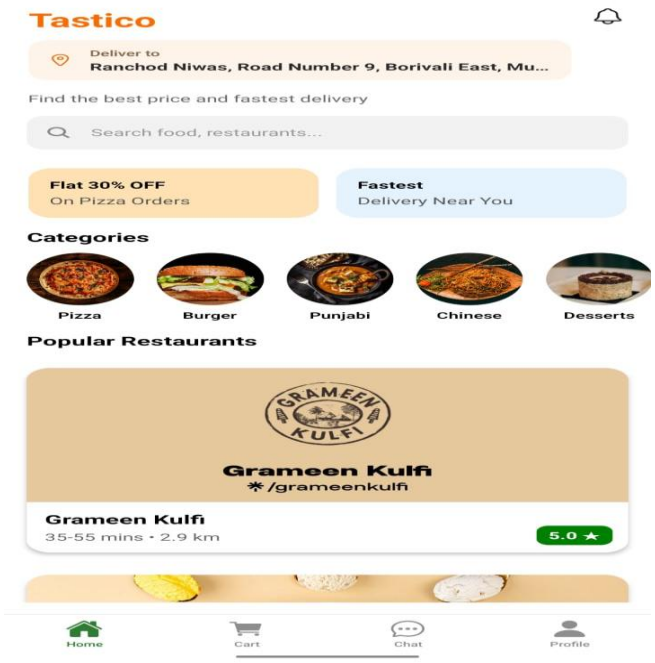

Fig-7.5: Project View

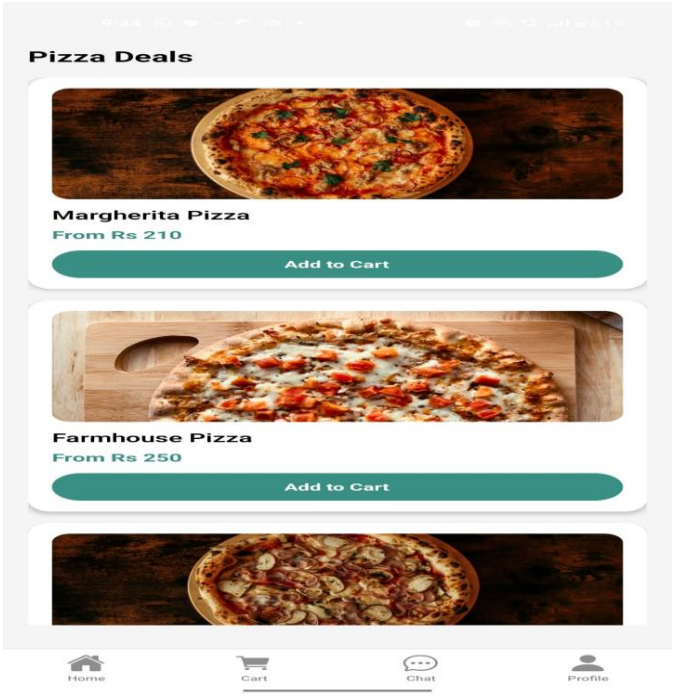

Fig-7.6: Dishes View

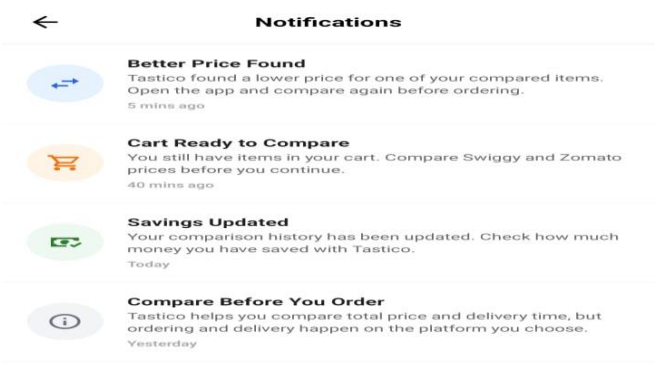

Fig-7.7: Notification View

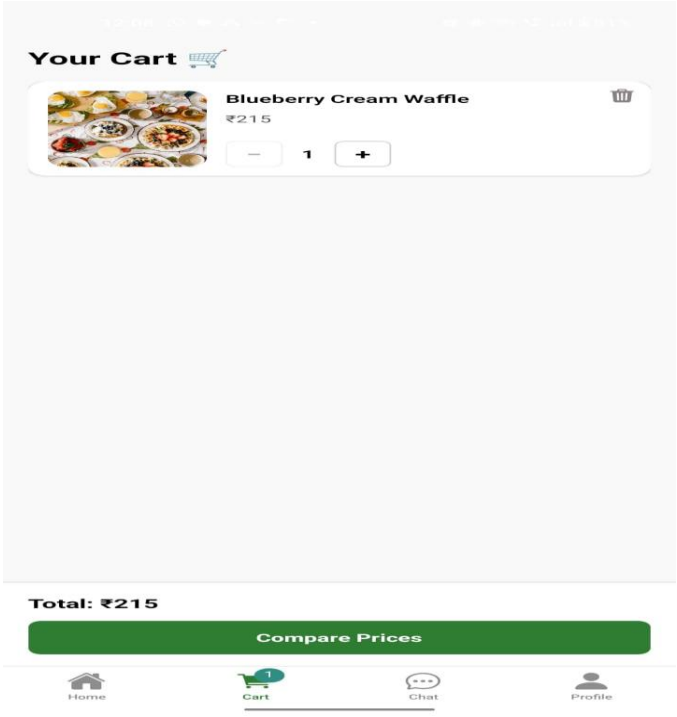

Fig-7.8: Cart view page

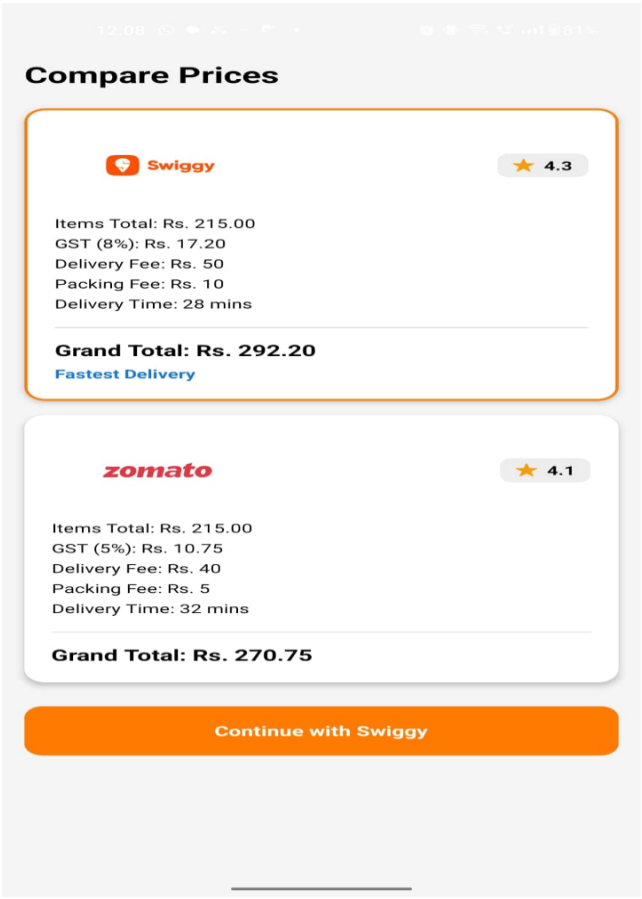

Fig-7.9: Compare Prices

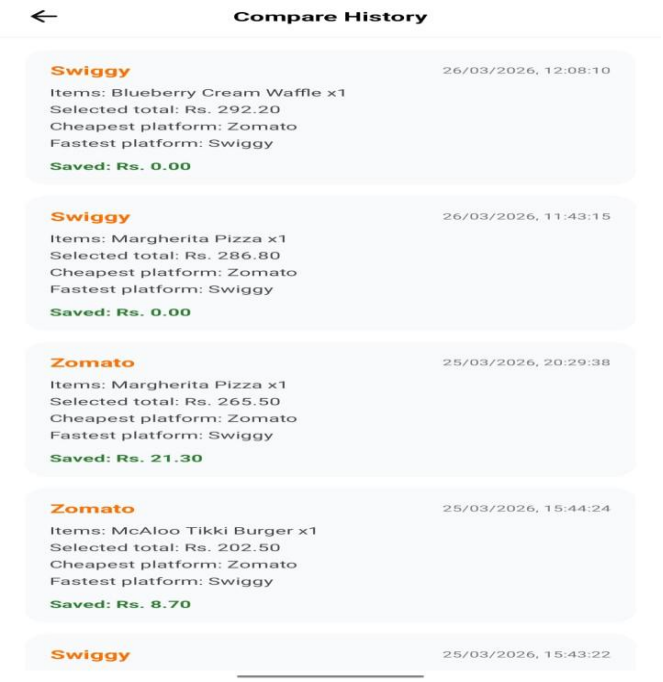

Fig-7.10: Compare History

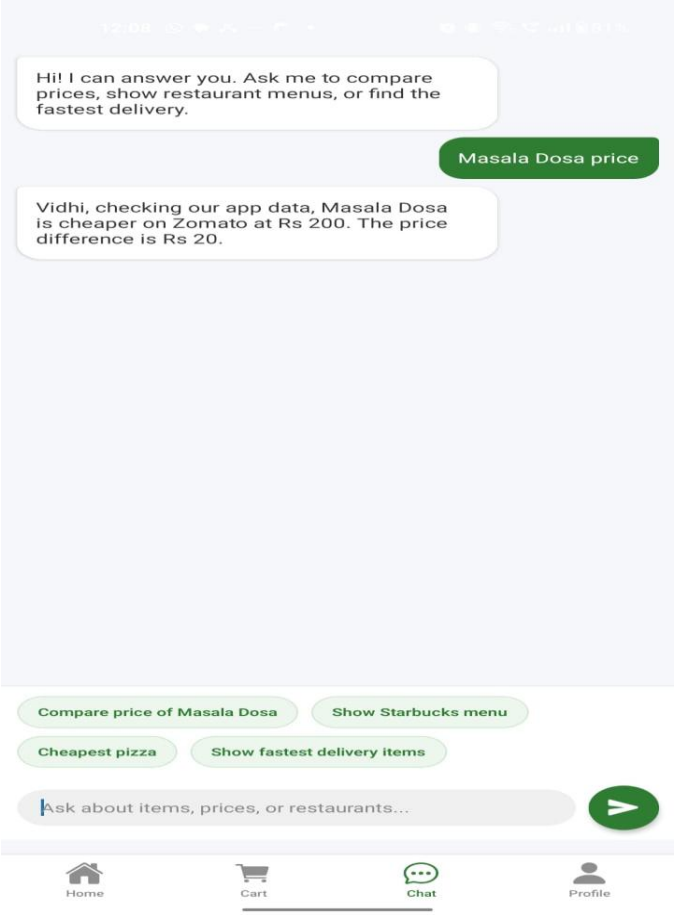

Fig-7.11: AI Chatbot

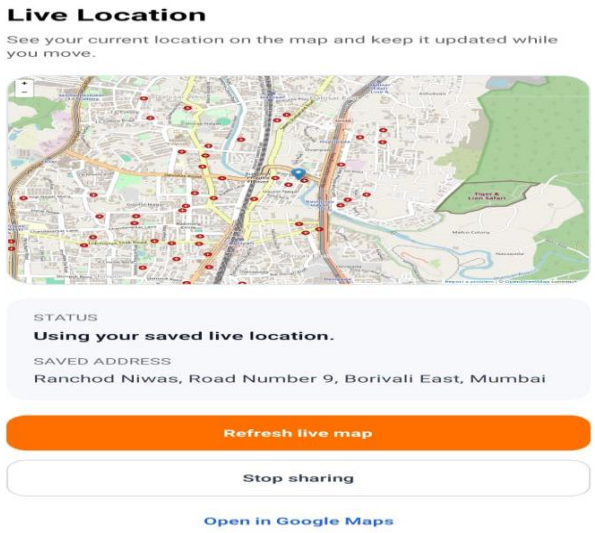

Fig-7.12: Location view

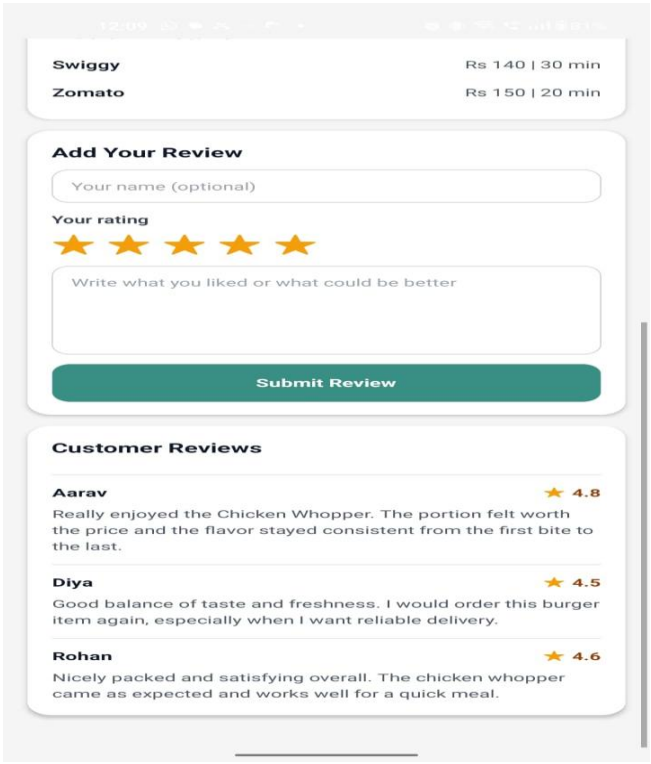

Fig- 7.13: Review

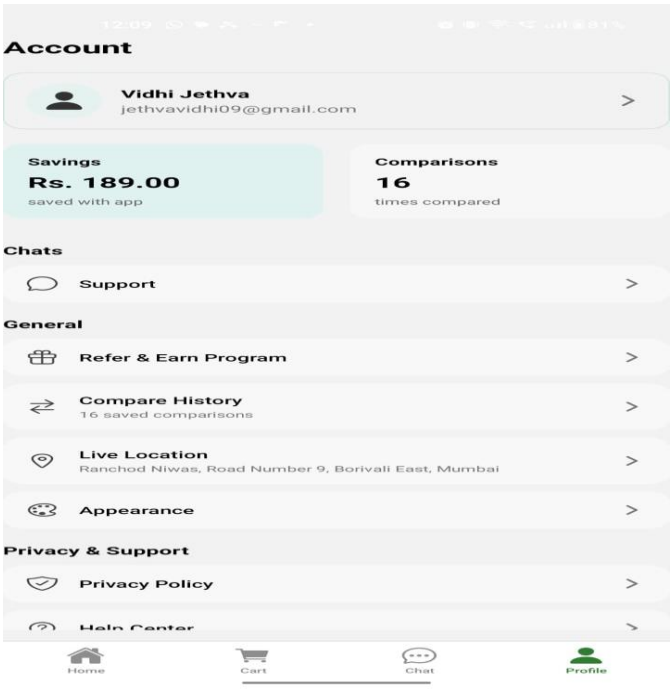

Fig-7.14: Profile View

9. Conclusion

The Tastico Food Price Comparison App is developed to address the challenge faced by users when comparing food prices across multiple online delivery platforms such as Zomato and Swiggy. With the growing popularity of online food ordering, users are often required to switch between different applications to find the best price for the same food item. This process is time-consuming and inconvenient.

The proposed system provides a centralized platform where users can search, browse, and compare food prices efficiently within a single application. The system uses a structured dataset containing information about food items and their prices, which simplifies the overall architecture and ensures consistent performance. This approach allows users to clearly view price comparisons and quickly identify the most suitable option based on their preferences.

The application includes key features such as user authentication, food search, price comparison, browsing options, and user profile management. Each feature is designed to enhance usability and provide a smooth user experience. Additionally, the integration of a chatbot improves interaction by assisting users with navigation and basic queries.

Firebase is used to securely manage user data, ensuring that personal information is stored safely. The modular design of the system allows different components to function independently while maintaining seamless integration.

Overall, the Tastico application demonstrates how mobile technology can simplify the process of comparing food prices and improve user convenience. By bringing all relevant information into a single platform, the system reduces user effort and supports faster decision-making. Furthermore, the current implementation provides a strong foundation for future enhancements, such as real-time data integration, expanded datasets, and support for additional food delivery platforms.

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