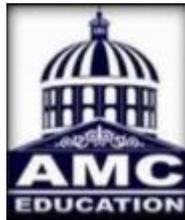


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PLATFORM DEVELOPMENT FOR HAWKERS AND PEDDLERS



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ABSTRACT

We are developing the Developing a mobile app that allows hawkers and peddlers to share their location in real-time: This could help customers to easily locate hawkers in their area and get information about the products or services they offer. Overall, sharing the live location of hawkers can be a useful tool for supporting these small-scale businesses and helping them to reach new customers. It can also help to promote the diversity and vibrancy of a community and provide more options for local residents. small scale businesses and street shops are typically owned and operated by a single individual or a small group of people and are often located in areas with high foot traffic, such as street corners, markets, or shopping districts. These types of businesses can include a wide range of products and services, such as food stalls, retail stores, barbershops, and more.

One of the main advantages of small-scale businesses and street shops is their ability to be flexible and adaptable to the needs and preferences of their local customers. These businesses may also be able to offer personalized service and build strong relationships with their customers, which can help to differentiate them from larger, more impersonal businesses Despite these challenges, small-scale businesses and street shops can play an important role in the local economy and community. They can provide employment and income for individuals and families, and can also contribute to the vibrancy and diversity of a neighborhood or community.

Using XML for the UI, java for the backend, firebase for the database, and APIs for the location can be a good solution for building a platform to support small-scale businesses.

Keywords: Hawkers, Small Scale Businesses, Technological Advancement, Platform development, B2C support

INTRODUCTION

Our project focuses on the development of a platform for hawkers and peddlers, utilizing XML for front-end development, Java as the backend language, Firebase for the database, and the Google Maps API for mapping functionalities. The platform aims to streamline the process of locating vendors, accessing menus, and engaging with vendors through reviews and likes. By leveraging these technologies, we aim to provide a user-friendly solution that enhances the overall experience for both vendors and users in the street product industry. Traditional methods of finding street vendors can be time-consuming and inefficient, often leading to missed opportunities and frustration for users. Our platform addresses these challenges by integrating location tracking, menu display, review and rating systems, vendor profile liking, and proximity notifications into a comprehensive solution.

Objectives

- 1. Develop a user-friendly platform for hawkers and peddlers that allows users to track vendor locations in real time.**
- 2. Enable users to view vendor menus, including product names, descriptions, and prices, to make informed decisions about their product choices.**
- 3. Implement a review and rating system to promote user engagement and provide valuable feedback to vendors, enhancing transparency and trust.**
- 4. Incorporate a vendor profile liking feature, enabling users to show appreciation for exceptional vendors and fostering positive vendor-user interactions.**
- 5. Trigger proximity notifications when a vendor is within a 150-meter radius, ensuring users are aware of nearby options and improving their convenience and accessibility.**

Methodology

Our methodology involves utilizing XML for front-end development to create a visually appealing and user-friendly interface. Java serves as the backbone of the platform, handling the logic and functionality of the application. Firebase, a cloud-based database, is integrated to store and retrieve vendor information, user reviews, and other relevant data. The Google Maps API is incorporated to enable location tracking, proximity notifications, and interactive map display. These technologies work together seamlessly to provide efficient data processing, secure storage, real-time synchronization, and accurate mapping functionalities.

As we have seen in the system architecture design below, there is a user, android device, firebase, and vendor. Android device is where data is viewed by the user and it can be fetched from the firebase-Location API. The vendor has control over the accuracy of the location shared with the user and the catalog. The application allows the user and the vendor to contact each other. Here is the conceptual layout of data structures and databases is looked at in more detail.

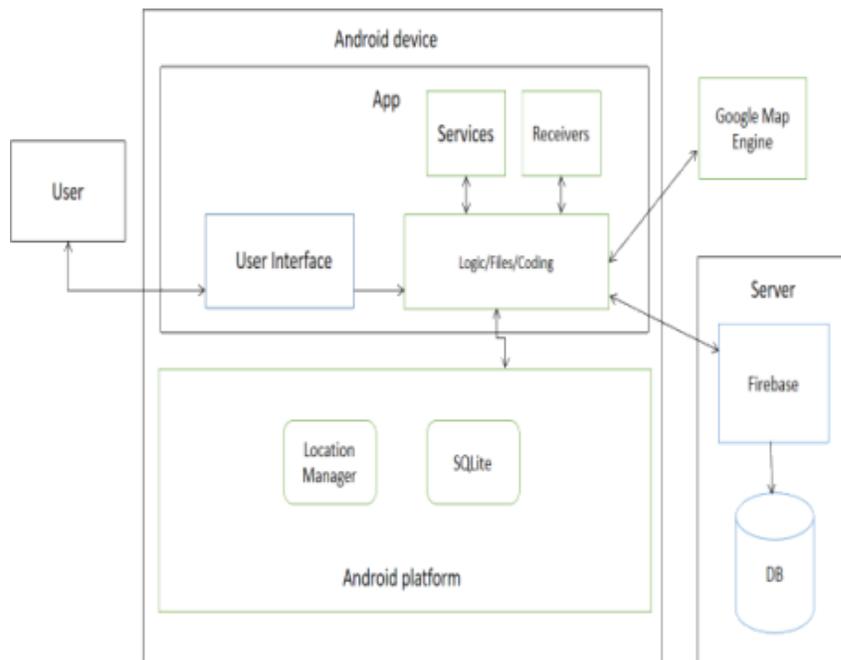


Fig System Architecture Design.

Results and Conclusions

Through the implementation of our platform, users can effectively track the location of vendors, access menus, add reviews, and engage with vendor profiles. Proximity notifications have proven to be particularly useful in alerting users when a vendor is within a 150-meter radius, ensuring they never miss an opportunity for their preferred street product. The review and rating system has facilitated valuable feedback, enhancing user experiences and aiding vendors in improving their offerings. Overall, our platform has successfully addressed the challenges faced by hawkers, peddlers, and users, resulting in increased convenience, transparency, and satisfaction.

What is the innovation in the project?

As part of our ongoing efforts to enhance user engagement and convenience, we are planning to introduce the user-request feature into our platform. This innovative addition will enable users to directly request specific items from vendors, further personalizing the user experience and fostering a more interactive relationship between vendors and users.

In order to continually improve and enhance the user experience, we have planned to implement Flutter, a robust cross-platform framework, in our project. This decision represents a significant innovation that will elevate the app to new heights and provide a seamless user experience across different devices and operating systems.

By adopting Flutter, we are embracing a versatile and efficient development framework that will allow us to create a visually appealing and interactive interface. Flutter's extensive widget library and customizable UI components will enable us to design a stunning app that captures the attention of users and offers a smooth and intuitive navigation experience.

One of the key advantages of using Flutter is its ability to provide a single codebase for both iOS and Android platforms. This eliminates the need to develop and maintain separate codebases, saving time and resources while ensuring consistent functionality and visual aesthetics across multiple devices. This scalability and platform compatibility make Flutter a strategic choice for our project's growth and expansion.

Scope for future work

Incorporating advanced analytics to gather insights from user reviews and preferences presents a significant opportunity to drive improvements in the offerings provided by vendors. By leveraging data-driven decision-making, vendors can gain valuable insights into user preferences, trends, and areas of improvement. These insights can be used to refine their menus, optimize pricing strategies, and identify new opportunities to cater to the evolving needs of their customer base.

Continuous updates and improvements based on user feedback, emerging technologies, and industry trends are essential to staying ahead of the curve. Regularly collecting and analyzing user feedback allows for continuous refinement of the platform, addressing pain points and introducing new features that align with user expectations. Keeping a finger on the pulse of emerging technologies and industry trends ensures that the platform remains relevant and leverages the latest advancements to provide a cutting-edge user experience.

By incorporating advanced analytics, expanding the platform with additional features, and embracing a culture of continuous updates and improvements, our project can stay at the forefront of innovation in the street product industry