SERVICE PROVIDER APPLICATION FOR MAIDS(SWEEPSMART)

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ABSTRACT

This effort proposes developing an Android application to bridge the gap between domestic service providers, particularly maids, and service seekers. The need for trustworthy, on-demand domestic help in urban areas, where it can be challenging to find trustworthy service providers because of time constraints and a lack of personal relationships, is growing along with mobile technology. The application uses Firebase's secure authentication system and incorporates OTP-based login to safeguard user data and privacy.

A crucial element that ensures convenience and real-time availability is the system's location-based matching algorithm, which pairs users with nearby maids based on services like cleaning or dishwashing. The system's location-based matching algorithm, which links users with local maids based on services like cleaning or dishwashing, is a key component that guarantees convenience and real-time availability. With call integration and profile management features, the app facilitates effective communication between users and maids through an intuitive user interface. In addition to solving a major urban problem, our project gives domestic workers visibility and employment prospects, empowering them and fostering a safe and open environment for all. To ensure scalability, security, and responsiveness, the suggested system will be constructed with Firebase for backend services and Flutter for the frontend.

I. INTRODUCTION

The quick development of mobile technology has made it possible to create apps that make daily chores, such as household services, easier. The Android app outlined in this project is intended to link consumers with housekeepers who provide household services including dishwashing and floor cleaning. The app's user-friendly UI makes it possible for maids and service seekers to communicate effectively. Users are able to safely access the platform, look for available maids, and establish connections with them by using cellphone number authentication and OTP login. By providing a user-friendly and dependable platform that guarantees convenience and trust for both sides, our application aims to close the gap between individuals looking for home services and suppliers.

1.1 MOTIVATION

The growing need for reliable domestic assistance in cities is the driving force behind this project. Time constraints and restricted networks have made it difficult to find a trustworthy maid for home responsibilities. Furthermore, many employees lack a platform to display their abilities and availability, especially in unorganised industries like cleaning. By developing this application, we hope to offer a clear and efficient system where clients can quickly look for maids according to their needs and maids may post their availability and prices. This program aims to provide households with convenience while promoting employment options for domestic workers.

1.2 PROBLEM STATEMENT

Locating trustworthy and available maids for in-home services is .the main issue this project attempts to solve. Finding assistance for chores like cleaning and dishwashing is difficult for users, who are sometimes new to the region or have hectic schedules. However, maids who offer these services might not be well-known and have trouble getting in front of customers. By offering a platform where consumers can locate maids based on particular requirements such location, services offered, and availability, this project seeks to develop a digital solution that tackles these problems. In order to help maids find steady employment, the app will also enable them to publish their availability and services.

II. LITERATURE SURVEY

1. Domestic Android Application for Home Services [Sheetal Bandekar, Avril D'Silva (2016)]

Mobile applications have been ingrained in our daily lives due to their widespread use, whether for entertainment, business-related tasks, or personal use. A corporate-based mobile application for Android users, "Domestic Android Application for Home Services," connects clients and service providers via GPS (Global Positioning System). When a client requests home services, the closest service provider is assigned to meet their needs depending on their location, which is determined by retrieving their latitude and longitude. This program has the potential to incorporate maps to enable drag and drop to a different location by improving the current system "FacilityKart" application, which does not incorporate GPS into its functionality.

2. Household Veritas - A platform that provides household services [Apeksha Adekar1, Aakash Dalvi1, Pratik Gharat1, Pushti Ratanghayra1 (Mar 2023)]

Services including plumbing, electrical, electronic, mechanical, pest control, home painting, and machine maintenance have become more and more in demand in recent years. Finding trustworthy and effective service providers, however, can be difficult for clients, particularly during emergencies. It is now crucial to create an Android app for household services in order to solve this problem. Android is a Linux-based open-source operating system that is primarily utilised for mobile devices like panel computers and smartphones. Users can have instant access to a variety of home services by developing an app. Features like a list of available service providers, together with their ratings and reviews, can be included in the app. Additionally, it can give clients real-time information on the progress of status of their service requests, including when the service provider is anticipated to arrive.

3. HOME SERVICE APPLICATION [FIXIFY] [Miss. Pallavi Shejwal*1, Rohit Mane*2, Sahil Thorat*3, Dipak More*4, Gaurav Suryawanshi*5 (2023)]

This study aims to investigate the efficacy of Fixify, a smartphone app that makes it easier to locate trustworthy and reasonably priced service providers for home maintenance and repairs. The study focusses on Fixify's distinctive features, including its real-time appointment progress tracking and capacity to present consumers with a variety of service providers based on their ratings and costs. Fixify tackles the problem of trust and dependability that is frequently connected to locating service providers online in addition to its distinctive qualities. To make sure that its service providers are up to the greatest standards of professionalism and quality, the app thoroughly screens and chooses them. This provides clients with the assurance that they are getting excellent service from knowledgeable expert.

III. METHODOLOGY

The development of the Android application to connect users with maids for domestic services will follow a comprehensive and iterative methodology to ensure a successful outcome. The approach begins with a thorough requirement analysis, where we will gather detailed insights from potential users and service providers. This phase involves conducting interviews, surveys, and market research to identify the core features and functionalities needed for both service seekers and maids. Following the requirement analysis, the system design phase will lay the groundwork for the application's structure. This includes crafting a high-level architecture that integrates the client-side (mobile app), server-side (Firebase), and data layer (Firebase database). Detailed design of the user interface will be undertaken, with wireframes and prototypes developed to ensure an intuitive and user-friendly experience. Additionally, the database schema will be defined to manage user profiles, maid details, and service data efficiently. The development phase will see the actual construction of the application. Using the Flutter framework, we will create the mobile application's frontend, incorporating features such as user profile management, search capabilities, and communication tools. On the backend, Firebase will be employed to handle authentication, data storage, and real-time updates. The integration process will ensure that the frontend and backend components work seamlessly together. Once development is complete, rigorous testing will be carried out to validate the application's functionality and performance. This will include unit testing to verify individual components, integration testing to ensure proper interaction between system parts, and user acceptance testing (UAT) to gather feedback from real users. This feedback will be crucial for identifying any issues or areas for improvement.

IV. KEY FEATURES AND FUNCTIONALITY

The core objective of this application is to provide a user-friendly and efficient platform for both service seekers and service providers. The application incorporates the following features:

User Authentication and Security:

Mobile Number Authentication: Users can securely register and log in using their mobile number. This ensures that the platform is accessible only to verified users.

OTP (One-Time Password) Login: An additional layer of security is provided through OTP verification, safeguarding user accounts and preventing unauthorized access.

Search and Connect:

Service Search: Users can easily search for available maids based on their specific needs, such as floor cleaning or dishwashing. The app allows users to filter and view profiles of maids, ensuring they find the right service provider for their requirements.

Direct Communication: The application facilitates direct communication between users and maids, allowing for real-time interaction and arrangement of services. This ensures that users can inquire about availability, negotiate terms, and finalize bookings seamlessly.

User Interface:

Intuitive Design: The app features a user-friendly interface designed to enhance the overall experience for both service seekers and providers. With a focus on ease of navigation and accessibility, users can quickly find what they need and manage their interactions with minimal effort.

Trust and Convenience:

Reliable Platform: The application is built to foster trust and reliability. By offering a platform where users can find vetted and professional service providers, the app aims to ensure a high level of satisfaction and security for both parties involved.

System architecture diagram
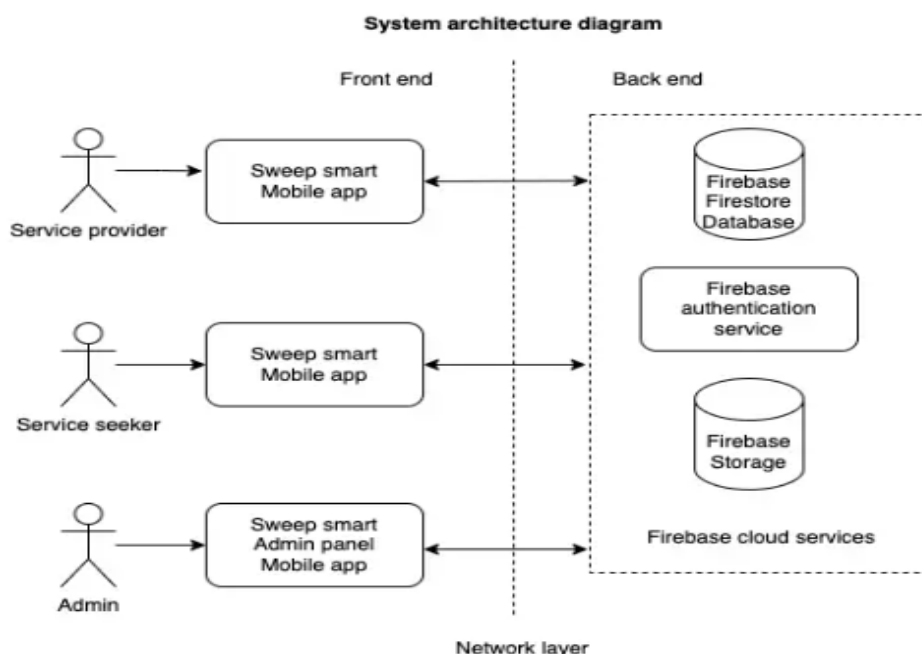
V. CONCLUSION

This research shows how mobile technology can be used to solve a frequent issue: locating trustworthy domestic help. Both service suppliers and seekers gain from the app's user-friendly platform. The application guarantees that users can locate reliable maids who satisfy their particular requirements by combining location-based search with a secure OTP login. Scalability and dependability are ensured by using Firebase for backend services, which makes the application appropriate for broad usage.

VI.   REFERENCES

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