Android App for On-Demand Household Maintenance Services

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Abstract:

There is a huge demand for labor workers for repair and maintenance at houses and offices. The house owners when in need of such workers, it has become difficult to find suitable labour on demand. On the other hand, the skilled workers such as electricians, masons and plumbers find it difficult to get a chance to avail such opportunities due to lack of reaching out to the customers who are in actual need of their services. This project aims to bridge the gap between the customers and the skilled workers to maximize the revenue for the workers and hassle free connectivity between the needy and the skilled workers. The proposed EMP-Crew (Electrician, Mason and Plumber (EMP) Crew) is an Android mobile application intended to connect customers with skilled professionals offering an easy-to-use platform for registering the complaint and tracking the details. Customers can easily browse through a variety of service categories, check the availability of professionals, book services and monitor the progress of the work and receive updates on the status of the ongoing work. Whether it is a minor electrical repair, a plumbing emergency or a masonry construction, the app allows customers to find skilled workers in real time. For technicians, this app serves as a dynamic platform to manage their services, update availability, receive job notifications to ensure they are easily accessible to customers and ensure timely payments for the works.

Key Points: EMP-Crew, Skilled workers, Electricians, Masons, Plumbers, Android mobile application, Customer-service connectivity, Real-time booking, Repair and maintenance, Home and office services, Hassle-free service, Timely payments.

INTRODUCTION

In today's fast-paced world, the demand for quick and reliable household maintenance services is steadily rising. Whether it is a sudden electrical issue, an urgent plumbing fault, or the need for masonry work, people often struggle to find skilled professionals at the right time. At the same time, experienced workers face challenges in reaching potential customers due to limited visibility and lack of digital presence. This system is designed to eliminate that disconnect by offering a streamlined digital platform that connects the two sides efficiently.

The application provides a convenient and intuitive interface for users to register complaints, browse service categories, and book appointments with available professionals. Customers are kept informed with real-time updates about their service status, ensuring full transparency from booking to completion.[1] Secure payment options and a feedback mechanism further enhance the user experience, making the service both reliable and customer-friendly.

For technicians, the platform serves as a powerful tool to showcase their skills, receive job requests instantly, and manage their services on the go. They can set their availability, accept or decline requests, update job progress, and monitor their earnings—all through a single app. The goal is to create more job opportunities while ensuring fair compensation and timely access to work.

The system architecture supports seamless coordination between users and service providers. It is designed to scale efficiently, allowing for easy addition of new service categories or expanding to new geographic regions. Ultimately, this solution aims to simplify daily life by bringing essential maintenance services to users' fingertips while empowering skilled workers with greater reach and stability.

PROPOSED SYSTEM:

To overcome the limitations of the existing unorganized service system, a dedicated Android application is proposed that acts as a digital bridge between customers and skilled household maintenance workers. This mobile platform will allow users to easily access services such as electrical repairs, plumbing, and masonry work from verified professionals—anytime, anywhere.

The application provides a user-friendly interface where customers can browse service categories, view available technicians, book appointments, track the status of their service in real-time, and securely make payments. Each technician's profile will include ratings, reviews, and work history to help customers make informed decisions.

For technicians, the system offers a centralized platform to register their services, update their availability, receive job notifications, and manage their tasks and earnings. This structured system ensures better visibility, more job opportunities, and timely payments.

The overall goal of the proposed system is to bring convenience, reliability, and transparency to both customers and workers through a real-time, interactive, and scalable mobile solution

CONCLUSION:

The service booking mobile application was developed with the goal of simplifying access to skilled professionals for users. By offering features such as user registration, service selection, booking, and payment, the app streamlines the process of connecting users with electricians, plumbers, and masons. The inclusion of

an admin panel for professional approval further enhances the platform's functionality. This project demonstrates how mobile technology can bridge the gap between consumers and service providers, ensuring convenience and efficiency. Through its practical approach and user-friendly design, the application stands as a useful tool for residents seeking reliable services.

FUTURE ENHANCEMENTS:

The service booking app has great potential for future enhancement. Some possible improvements include:

- Additional Professions: More skilled professionals (e.g., carpenters, painters) can be added.
- Real-time Availability: Integrating real-time availability of professionals for quicker booking.
- Location-Based Services: Showing nearby professionals using GPS.
- Feedback Integration: Adding a feature for users to rate professionals and provide feedback.
- Multilingual Support: Supporting multiple languages to reach a wider audience.
- Push Notifications: Sending updates on booking status or special offers.

These enhancements can improve the user experience and make the app **more** accessible and efficient in connecting users with service providers.

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