

Vehicle Wash Services Android Application

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Abstract - Vehicle wash facilities are primarily concerned with cleaning the exterior and sometimes the interior of vehicles in addition to their exteriors. The majority of people today own a vehicle, so keeping it clean can be a time-consuming undertaking since so many people own them these days. This burden can be alleviated by our solution, which connects vehicle owners with individuals who are willing to clean their vehicles for a fee in exchange for the money they pay for their services. With the help of our mobile app, owners can easily find and contact service providers who are willing to offer cleaning services for their vehicles. In order to book a service, customers simply need to submit an inquiry and provide their location, which will then be sent to all the active service providers.

Key Words: Android App, Vehicle Wash, Location

1. INTRODUCTION

Are you looking for a convenient and hassle-free way to get your car washed? Look no further than the Bike & Car Wash Services Android application. This app allows users to book their car wash and bike wash services with ease, saving time and money. With its user-friendly interface, customers can quickly select the type of service they need, check availability, and make a booking. With the introduction of an Android application for Bike & Car wash services, customers can now book a car or bike wash more conveniently and quickly. This app allows them to select from a variety of services and book their desired service from the comfort of their homes. [1]

The app is designed to store the information of all the customers who log in, making it easier for them to access the services provided. We have developed two independent apps for this purpose, one for the customers and the other for the service providers. The customer app provides a seamless and hassle-free experience to the users, enabling them to book car washing services with just a few clicks. The service provider app, on the

other hand, allows the providers to manage their services efficiently and provides them with a platform to connect with potential customers.

2. System Overview

When developing an android application, several components are need to be taken care of, such as front-end design of the application, front-end development of the application, and the back-end development of the application.

In the case of our application, Figma is used for the front-end design. Figma is a cloud-based design and prototyping tool that provides a collaborative environment where multiple team members can work simultaneously on a single design file. This tool allows designers to create high-fidelity wireframes, prototypes, and visual designs, which can be further used for front-end development. [2]

Flutter is used for front-end development. It is a mobile development framework that allows for the creation of high-quality mobile applications for both Android and iOS platforms. Flutter is known for its simplicity, speed, and flexibility. By using Flutter, the front-end of our application is developed, ensuring that the design was brought to life and the user experience was optimized. [3]

Firebase is chosen as the back-end for our application. Firebase provides a set of tools and services for app development, including authentication, real-time databases, cloud storage, and hosting. Firebase simplifies the back-end development process, allowing us to focus on the core features of the application. [4]

3. Implementation

The application has two different interfaces, one for customers and the other for service providers. Customers can utilize the customer-side application to search for services based on their requirements and go through the reviews posted by other customers. Whereas, service providers can make use of the service provider-side application to handle their bookings, payments, and customer feedback. By using this application, service providers can improve the quality of their services and ultimately enhance the customer experience by efficiently managing their operations.

Customer-side Application:

In just a few clicks, the customer can get their car washed. It provides both a customer authentication phase and an administrator authentication phase. As long as the customer has a valid registration ID and password, he or she can login to the system. When a customer logs into the application, the application at once checks the database to ensure that the user is legitimate after the customer logs in. As long as the user is valid, they will be able to successfully log in. In the event that a user's account is not valid, they have the option of creating a new one.

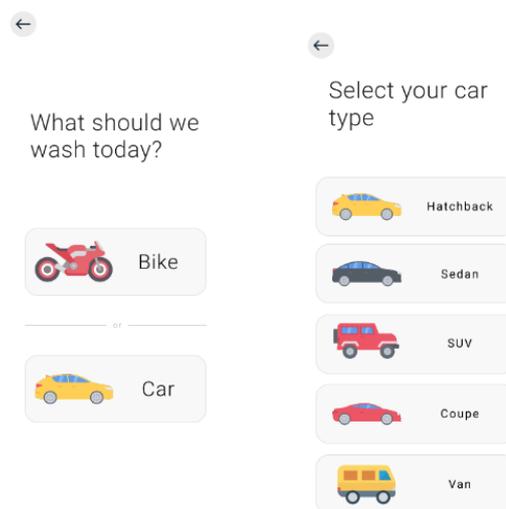
After logging in, the user is directed to the selection page, where they can choose the type of vehicle that they need to be washed. The options available include various types of vehicles, such as bikes or cars. If the user opts for a car, they will be prompted to select the specific type of their car, which can vary from a hatchback, sedan, SUV, convertible, and many more. This ensures that the car washing service is tailored to the specific needs of the customer's vehicle, providing a customized and satisfactory experience. By selecting the appropriate vehicle type, the customer can ensure that the appropriate cleaning agents, equipment, and techniques are used, thereby providing optimal results. This step also helps in streamlining the process of car washing, ensuring that the customer receives a seamless and efficient experience.

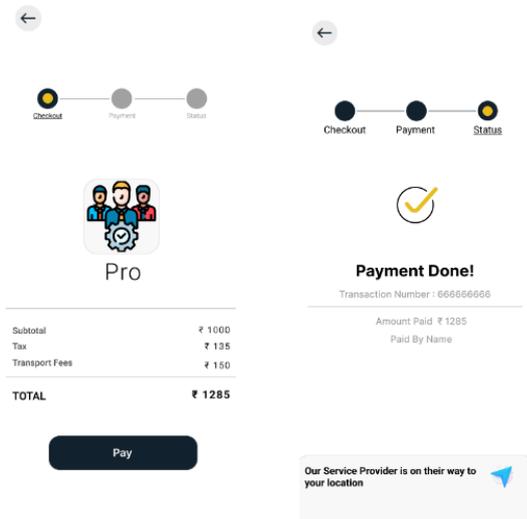
Once the customer has selected the type of vehicle and its specific type, they are directed to the package selection page. This page offers various packages to choose from, including Basic and Pro services. Each package includes a specific set of services designed to meet the customer's requirements.

The Basic package includes a thorough wash of the exterior of the vehicle, with special attention paid to the wheels and tires. This package also includes a basic cleaning of the interior, such as vacuuming the carpets and seats and wiping down the dashboard and windows.

On the other hand, the Pro package includes a more extensive cleaning of the vehicle with additional services such as waxing, polishing, and detailing. This package also includes a comprehensive cleaning of the interior, including deep cleaning of the carpets, seats, and mats and thorough cleaning of the dashboard and other surfaces. The Pro package provides an all-encompassing solution for those who require a more comprehensive car wash service.

After the customer has selected their preferred package, the car wash app calculates the amount corresponding to the booking.





Service Provider-side Application:

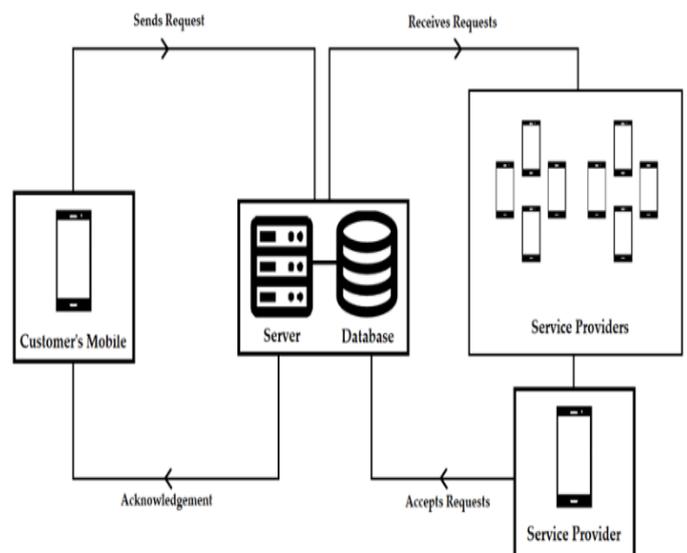
When a service provider wants to access a system, they are required to provide their unique login credentials, which include a valid username and password. This process is commonly known as authentication and serves as a security measure to ensure that only authorized personnel are granted access to the system. Without a valid login, the service provider will not be able to access the system or perform any actions within it.

After successful login to the service provider's platform, customers' requests will be displayed to the service providers. This will enable the service provider to view all requests from customers in one place, making it easier to manage and respond to them quickly. With a single glance at the dashboard, service providers can easily identify customers and take action accordingly.

When a customer's request is accepted, the details of the customer along with their location will be displayed on the app. This helps service providers plan their route and provide better services to their customers. Additionally, this also allows service providers to reach out to customers in a timely manner and ensure that they are providing quality services.

4. Working

1. The customer will place a request for the cleaning service within the app.
2. The request contains details about the kind of service that the customer requires.
3. The services provided are the following:
 - i. Basic Wash Service
 - ii. Pro Wash Service
4. The request will be sent to all the service providers active at that time.
5. Among all the service providers, one will accept the request.
6. The individual who accepts the request will arrive at the given location within a certain time to perform the requested service.
7. After the completion of the service, the user will be able to give a rating to the service provider within the app.
8. This rating will aid in determining which service providers provide high-quality service.



5. CONCLUSIONS

Android applications are becoming increasingly popular for providing vehicle wash services. These apps allow users to book a service, select the type of wash they want, and pay for it all through their smartphones. This has revolutionized the way people get their vehicles washed and is a great example of how technology can make life easier.

In conclusion, Android applications for vehicle wash services provide a great way to get your vehicles cleaned in a convenient manner without having to leave your home or office. They offer many benefits, such as cost savings, convenience, and time savings, that make them an ideal choice for anyone looking for an easy way to get their vehicles washed.

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