Taxi Booking System with voice Recognition

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Abstract: This project is about creating an Android application that uses speech recognition to book a cab. The passenger just needs to register their initial ride by voice commanding their own details. This App is useful for blind persons who are unfamiliar with smartphones and for blind people who are unable to book a cab or taxi using any of the Android apps. Users may book a ride using voice commands with this Android App. In this application, we use numerous APIs for speech recognition in order to communicate in different languages. This app is linked to both a smartwatch and a database.

Keywords- Android Application, visually impaired, blind people, old aged people, voice Recognition, smartphone, GPS, Uneducated people, sensor, Travel, Journey, voice Instruction.

INTRODUCTION

Because of population expansion, both technology and transportation networks are expanding. In today's society, travel has become an integral part of our daily lives. Traveling is not just for business but also for recreation, tours, shopping, and so on. Vehicles are getting more prevalent these days, and they have also become a part of our daily lives, even though people may book taxis, trains, and so on. Furthermore, people are suffering greatly as a result of public transit and are waiting for it. This is due to the passage of time.

Today, blind individuals are suffering greatly because they cannot bring themselves to hire a cab or taxi. Our purpose in this article is to design an Android app primarily for blind persons to use to book a cap or taxi from one location to another. The primary goal of this software is to assist blind people. Our app's major feature is speech recognition, which allows blind individuals to hire a cab or taxi.

This service provides voice-based transportation for blind individuals, normal persons, visually impaired people, and elderly people who are unable to walk. Passengers and drivers may speak via speech with this app, making it easier for people to converse. In this app, the administrator can also view the live monitoring; if something goes wrong, the ride can be readily traced via live tracking, and a sound is delivered via sensor to alert the individuals who are riding. This app is useful for both long and short distance drives.
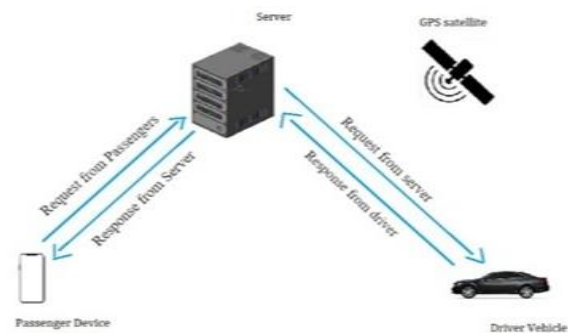
FEATURES OF THE APP

i) BOOKING VIA VOICE:
When people are travelling, they can book an app by speaking, and they can even hear a response from a driver whether it is correctly booked or not. People may also contact with the drive to find out if it would take a short or lengthy time to reach there.

ii) PAYMENT VIA VOICE:
People who are blind or visually impaired may pay by voice, which makes it easier for them to pay. The app is also linked to a smart watch, so regular people who use it can also pay by smart watch.

iii) RATING VIA VOICE:
Travelers may hear a rating via speech using this app, which will enable blind people acquire information about the driver so they can pick which cab or taxi they want.

iv) DRIVERS INFORMATION VIA VOICE:
People who travel long distances must be aware of the drivers; for such purposes, drivers' information can be

obtained from a database. This will assist blind or elderly individuals in understanding the drivers.

V) TRACKING VIA VOICE:

The position is sent to the passengers at 15-minute intervals. They learn where they are presently travelling, which is extremely useful for blind, visually impaired, and elderly persons who need to be warned quickly. Finally, the sensor will assist travellers in quickly learning the location of their destination.

Vi) CANCEL BOOKING VIA VOICE

Once if the passenger had booked by using voice, they are having an option to cancel the booking over voice, and they are having an free option to change the date and time over voice .

IMPORTANT FEATURE

GEOLOCATION:

The key benefit of this app is that the driver can quickly identify the passenger's current position and where the driver has to pick up the passenger by utilising geolocation. When the passenger opens the app, it will first ask the passenger to switch on the GPS using voice, and if the passenger says OK, the GPS will be turned on automatically. Using the GPS makes it easier for the drivers to pick up and drop off the passenger.

CURRENT ISSUE IN TAXI BOOKING

There are many issues with the current versions of taxi booking facilities, such as if the passenger has not turned on their GPS, the driver will be unable to find the passengers' location to pick them up. The main disadvantage is that blind people cannot access the App, uneducated people cannot access the App, there are only a limited number of languages offered for passengers, so people from other districts or states cannot access the App, and it is not suitable for long distance travel.

CONCLUSION

From this study we have shown the importance of taxi booking App and how it helps. In general, standard transportation applications do not benefit all types of individuals, particularly the disabled. However, this app provides full features to everyone. This taxi booking app makes journey more comfortable to all the user. This app is one of an essential to overcome the struggles of user mainly it tends to help the blind people and make them feel comfortable. It makes easy for everyone. This App will help the user to Book via voice, Payment via voice, drivers information via voice tracking via voice and many other facilities to the users. So that the people don't want to depend on other. In this generation most of the people use android mobiles. So this helps to provide better service and more convenient to the user of this Android App. The system can be improved in the future to include more functions and close the accessibility gap for those who are blind individuals and the rest of society.

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