

# Voice Based Taxi Booking Application

SiddheshRane<sup>1</sup>, Yogeshwar Patil<sup>2</sup>, Yash Patil<sup>3</sup>, Pallavi Raut<sup>4</sup>

<sup>1, 2, 3, 4, 5</sup> Dept of Computer Engineering  
<sup>1, 2, 3, 4, 5</sup> Viva Institute Of Technology, Virar

**Abstract-** A view of an android app, which is basically a taxi booking app the passenger simply have to register first by providing the information, this application will provide ease to the people who are not much familiar with the smartphones, through this app they can book their ride by voice instructions, in this app we will use multiple API's for voice recognition like Hindi and English. So our team proposed an app to aid the to book a cab online with minimum effort so they don't need to have to hustle to find a cab. The app consists of an easy gesture and voice driven interface so that any blind person would be easily able to operate it. It allows the user to book a ride to a certain destination using some gestures and voice commands. So anyone could book a cab easily without actually looking at the phone. Some features so that the cab driver and the user can identify each other. We think this app would make their life easy.

**Keywords-** Taxi Booking, Voice Instructions , Voice Recognition, Voice Commands.

## I. INTRODUCTION

Technology is increasing step by step with the passage of your time to supply ease in existence. Transportation network is increasing because of the necessities of the individuals. There are multiple transportation modes out there however still movement could be a major drawback in urban cities of the globe [1].

People wait too long so they get their taxis or buses. movement isn't solely used for business it will be for relaxation, looking or different activities. Vehicles are used for all means that of transportation, people favor to travel through business transports as they're less costly from getting personal vehicles [2].

Taxi services play an important role by providing individualised vehicles in urban transit. the foremost challenge of this technique is that the match of traveler demand and taxi service. it's tough for traveler to induce taxi on time and largely vacant taxis waste an excessive amount of time for locating a traveler that cause traffic blockage [3].

To overcome this issue a replacement system is introduced among the people to with efficiency utilize the right combination of their smartphones and net to book a cab.

the benefit of booking cab from anyplace has created this business model an excellent success [4]. In this system that is an effort to create a mobile application that is user friendly. we offer a platform through that traveler and driver each will communicate with one another. The planned system is furthermore the same as different taxi booking application that provides live map pursuit of ride, book ride remotely, fare estimation mechanically. moreover, we tend to planned use of voice commands to regulate some basic functions of application which give a lot of ease to its users. [5]

This humanoid app, that is largely a taxi booking app the traveler merely need to register 1st by providing the data, this application can give ease to the people that don't seem to be abundant conversant in the smartphones, through this app they will book their ride by voice directions, during this app we'll use multiple API's for voice recognition like Hindi and English.[6] With the assistance of assorted speech to text and text to speech convertor tool we will perform the assorted operation victimization voice command. This app has changing speech to text feature that perceive human language and response a pair of within the same manner . we tend to are victimization some algorithmic program and API's that facilitate United States of America to extract solely the placement from the sentence spoken by user.[7] Feedback system is additionally supported speech to text ,after the completion of ride notification send to traveler for feedback at there device. User will place the great or unhealthy remarks in line with the ride they need complete however.[8]

Economical management on the commonplace of research of cost accounting together with distance, maintenance of auto and different things .The aim of this paper is to style a mobile application of taxi booking app supported voice recognition to supply a lot of ease for its users. This paper is structured as follows: with the introduction in section-1. Literature survey in section-2. Problem statement in section- 3. In section-4 Design of proposed system is conducted. In section-5 implementation of mobile application is conducted and section-6 concludes this paper.

## II. LITERATURE SURVEY

The Literature survey on this system of booking ride sharing services permits individuals to access any app like

writing paper or Uber, at the bit of a button. One will book a cab/auto straightaway or hours prior to, to travel to their needed destination. The app shows the standing of the ride, i.e, arriving/arrived. It additionally shows the time and distance lined similarly because the OTP(one time password) and cab/auto range, whereas the cab arrives to your pick-up location.[9] Once the ride is found, you either match the given range (on the quantity plate) to the ride, or offer your OTP to the driving force. Then the driving force starts the trip. On the thanks to your location, you'll see what route the driving force is taking via. Maps. you'll additionally share your ride standing with a devotee. On reaching the placement, the driving force ends the trip. you'll either pay in money or through associate degree integrated cash sharing API like Google Pay. you'll additionally offer the driving force a rating, supported multiple parameters. you'll additionally lodge complaints just in case you have got been charged below the belt, or your driver has off the ride.[10]

Ola cab booking on-line helps to book the taxi merely, you would like to register yourself by exploitation your email ID and your mobile range. You have the choice to settle on the pickup purpose and drop location with the assistance of the app. writing paper cab booking app is downloaded through google play store in mechanical man and from Apple store for iOs. the price of the ride depends upon the ride choices as hand-picked by the users. They embody Sedan, Prime, Share Auto, and writing paper mini. [11]

Drawbacks of this application are:

- 1) Online payment issues.
- 2) There is a lack of communication with the drivers.
- 3) There are payment issues in this cab service.
- 4) Lack of proper training for drivers on app.

Uber, is one in all the world leaders during this cab booking business. This whole is that the key player within the landmass in India|Bharat|Asiancountry|Asian nation} and one in all the favored cab booking websites in India we've got. Users will merely book the cab via exploitation the web site or their mobile app. This whole is one in all the trusty and most used brands in Asian nation for several years. The fare is calculated supported factors, together with the kind of car distance and waiting charges. once the success of Uber cabs in Asian nation, they need launched their food ordering app referred to as Uber eat the many cutest of Asian nation. [12]

Drawbacks of this application:

- 1) Automatically change the method of payment.
- 2) Uber is not available in all locations.

- 3) It functions off of an automated system. Auto cancellation and mode of payment is the major problem in this app. This will be overcome in the proposed application.

### III. PROBLEM STATEMENT

We can book the cab with a few clicks, but this can be difficult for those visually disable people or those who has face difficulty to book the cab. To help these people we have comewith an idea to make it easier for cab booking service with help of voice access to know what's on the display and voice command to give input to the device on what to do next. The razorpay will help the user to pay for Passenger ride directly from user's digital wallet at theend of ride making it easy and time efficient. Alert system is also provide in this system to notifysome functions of the system.

### IV. DESIGN OF PROPOSED SYSTEM

Online-Taxi booking Service is aimed in providing these services to the visually impaired within the style of associate degree application that is natural to book cabs. this technique delves into the method of developing associate degree app that brings cab booking services at the fingertips of visually impaired individuals, and hopes to bridge the gap between the visually impaired and different members of the society. Cab application opened the floodgates of much-dead taxi trade with mobile taxi app. With forceful shift in client want that values convenience, taxi app development is that the excellent resolution to avail smartphone users with a comprehensive cab booking app. It nearly feels as if users have access to taxis among the realms of their fingertips. Mobile app development corporations area unit enjoying a significant role in occupation to the present ever evolving technology wants of new- age smartphone users. Taxi app development is one such space of specialization that involves drivers and seventeen passengers, partaking on the interactive platform of taxi app for his or her wants. Passengers request the ride and drivers settle for the ride. however there's additional to exploitation this taxi app than simply same in plain text. It involves complicated procedures and numerous different options that go a protracted method with the interface. A comprehensive study to know the functioning of taxi booking app will provides a ton additional clarity to the complete taxi app development.

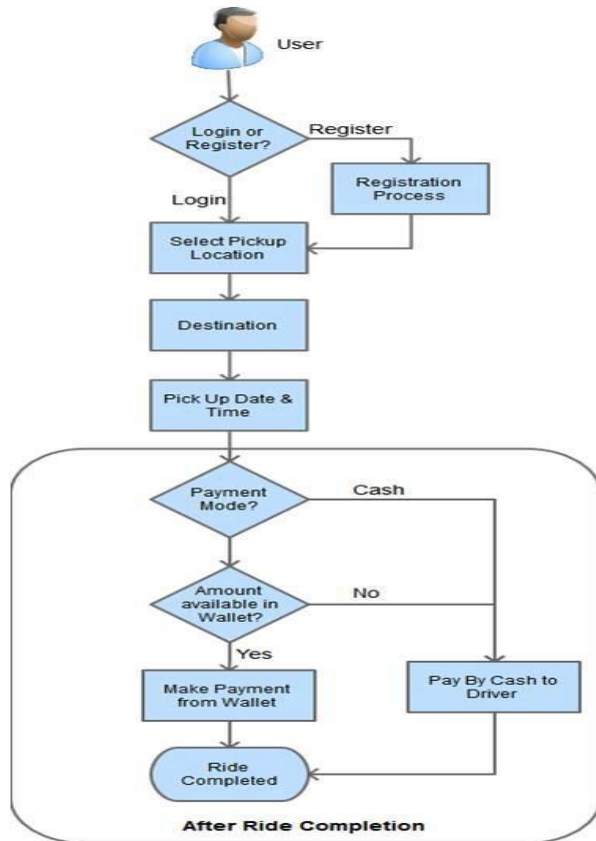


FIG:1 SYSTEM FLOW DIAGRAM

Figure1 shows that the system flow chart of the voice based mostly taxi booking system. It shows the step by step method followed by the user to book a cab. User needs to register 1st. Once registration method, choose pickup location and drop location i.e. destination. Additionally, user needs to choose the date & time of travel. Once ride completion, there are two payment choices: build a payment from pocketbook or pay by money.

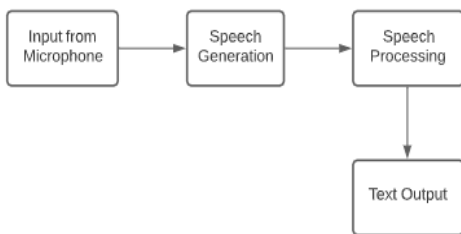


FIG:-2 BLOCK DIAGRAM OF SPEECH TO TEXT CONVERSION

Figure2 shows the flow chart of Speech to Text Recognition of the system. It shows how the STT Recognition works. Speech recognition software works by breaking down the audio of a speech recording into individual sounds, analyzing every sound, exploitation

algorithms to search out the foremost probable word slot in that language, and transcribing those sounds into text. Speech recognition software package uses tongue process (NLP) and deep learning neural networks. "NLP may be a method for computers to research, understand, and derive that means from human language in an exceedingly sensible and helpful method," this suggests that the software package breaks the speech down into bits it will interpret, converts it into a digital format, and analyzes the items of content. From there, the software package makes determinations supported programming and speech patterns, creating hypotheses concerning what the user is truly expression. Once crucial what the users possibly same, the software package transcribes the spoken language into text.

V. RESULTS

E-Cab Service is aimed in providing these services to the visually impaired in the form of an application which is instinctive to book cabs. This system delves into the process of developing an app that brings cab booking services at the fingertips of visually impaired people, and hopes to bridge the gap between the visually impaired and other members of the society. Cab application opened the floodgates of much-dead taxi industry with mobile taxi app. With drastic shift in consumer need that values convenience, taxi app development is the perfect solution to avail smartphone users. Mobile app development companies are playing a vital role in catering to this ever evolving technology needs of new-age smartphone users. Taxi app development is one such area of specialization that involves drivers and 17 passengers, engaging on the interactive platform of taxi app for their needs. Passengers request the ride and drivers accept the ride. But there is more to using this taxi app than just said in plain text.

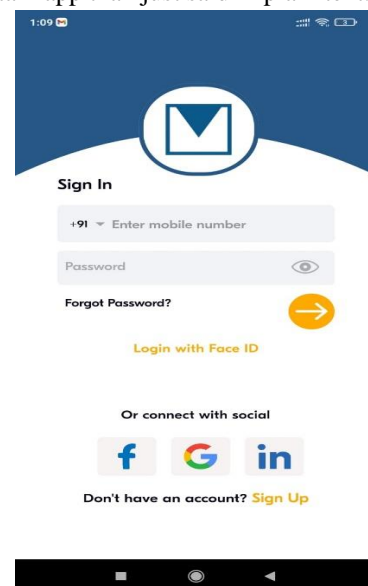


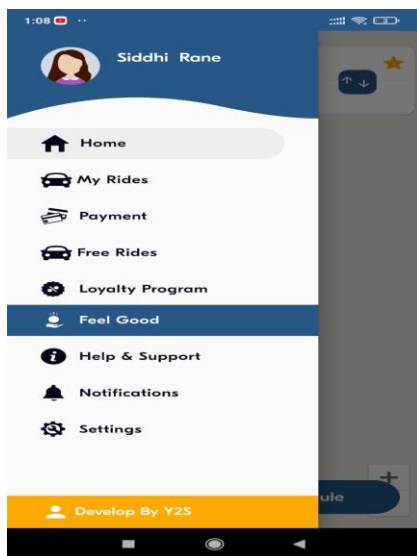
FIG. :-3: Login and Sign In page

In this figure 3 shows the Sign In , registration page. Registration page consists users email address and password . If user already registered then simply use login page. OTP authentication requires phone no of user to authenticate.



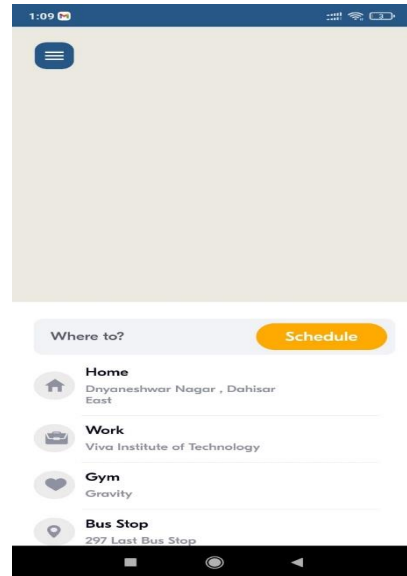
**FIG. :-4: Multiple Language Support**

In this figure 4 shows that our system is compatible for multiple languages like english and hindi



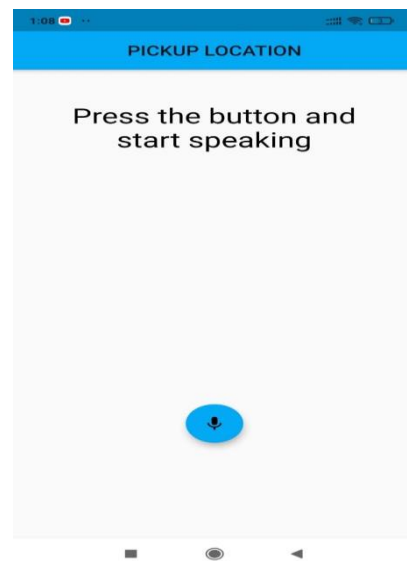
**FIG. 5:- Navigation Drawer**

In this figure 5 it shows the Navigation Bar , It Consists of Home Page itself ,Edit your Account ,Settings page and payment, My ride, free ride, loyalty program, help, & support, notifications.



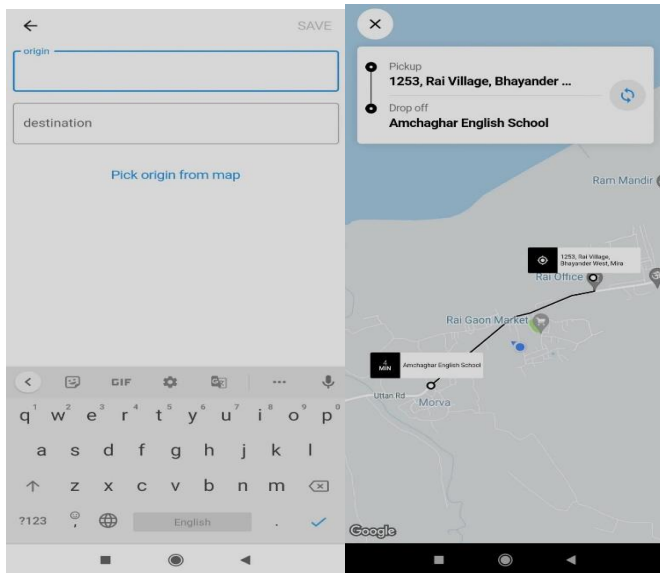
**FIG. 6: Home Page**

In this figure 6 it shows home page have four options to book a ride quickly that is home, work, bus, gym.



**FIG. :-7: Voice Recognition**

In this figure 7 it shows voice recognition feature using this user can book the ride and give command using speech to text recognition .



**Fig 8 and Fig 9 Map**

Figure 8 and 9 shows that taking the pick up and drop location using voice recognition feature.

## VI. CONCLUSION

Voice based taxi booking service is a system that attempts to bring visually impaired people and those who does not familiar with the smartphones to the forefront of today's corporate world, as well as cater to their personal needs, by simplifying the process of booking cab services without having them rely on other people to book rides for their commutes. This is an Android based app, that integrates voice based technology (TTS and STT) to make the process of booking rides easy and simple. The visually impaired user merely speaks a few words and his/her ride is booked. The app integrates all the features of the Ola app, namely, creating an account, booking a ride, determining how far the user's ride is, showing the pickup and drop off locations, notifying the user how far the ride is and whether the cab has arrived or not, paying the driver and much more. This system can be enhanced in the future to add more features and tide over the gap between the visually impaired people with rest of the society.

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