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Voice Based Email System having features of a Chatbot

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Abstract: *This paper aims at developing an email system that will help even a native visually impaired person to use the services for communication without previous training. The system will not let the user make use of keyboard instead will work only on mouse operation and speech conversion to text. Also this system can be used by any normal person like the one who is not able to read. The system is completely based on interactive voice response which will make it user friendly and efficient to use. In this paper we describe the voice mail system architecture that can be used by the blind person to access emails easily and efficiently. The contribution made by this resource has enabled the blind people to send and receive voice based email messages in their native language with the help of mobile device.*

The application uses 'text to speech' and voice recognizer to facilitate sending, reading, forwarding and replying to emails using an android smart phone. The application provides a secured platform by including an additional feature of applock for accessing the application, which is designed considering the convenience of blind person.

Keywords: *Speech to text converter, Text to speech converter, IVR*

I. INTRODUCTION

A voice based mail system is a computer based system that allows users and subscribers to exchange personal voice messages, to select and deliver voice information and to process transaction relating to individuals organization, products and services using an ordinary telephone.

Voicemail systems are designed to convey caller's recorded to a recipient the contain a user interface to select, play and manage messages; a delivery method to either play or otherwise deliver the message; and notification ability to inform the user of waiting message.

Most systems use phone networks, either cellular or landline based, as the conduit for all these functions. The most common mail service that we use in our day to day life cannot be used by visually challenged people. These people cannot read or write mails or messages to be sent to other people. This service provides them a platform to make their communication more easier. This system helps the blind people by reducing cognitive load to remember and type characters using keyboard. It is also helpful for handicapped and illiterate people.

The user of this system don't need to remember any basic information about keywords shortcuts as well as location of the keys. The system is also used widely to denote any system of conveying a stored telecommunication voice messages including using and answering machine. Almost all the modern voicemail system use digital storage and they are stored on computer data storage. Interactive voice response systems use digital information stored in corporate database to select pre-determined words and phrases stored in a voicemail vocabulary to form sentences that are delivered to the caller.

II. LITERATURE SURVEY

[1] In this paper, the authors have introduced the voice based email system, in this system user only make use of mouse operation instead of keyboard for speech to text converter.

Second paper references [2] This paper describes voice based email system that can be used to access e-mails easily and efficiently for the people who are blind.

Third paper references [3] Three types of technologies are used (i) STT known as Speech-to-text, here whatever user speak is converted into text (ii) TTS known as Text-to-speech which convert text of emails to speech (iii) IVR known as Interactive voice response which is the interaction between the user and voice message.

Fourth paper references [4] This paper introduce the voice based email system for visually impaired people which is more effective than existing systems.

III. PROPOSED WORK

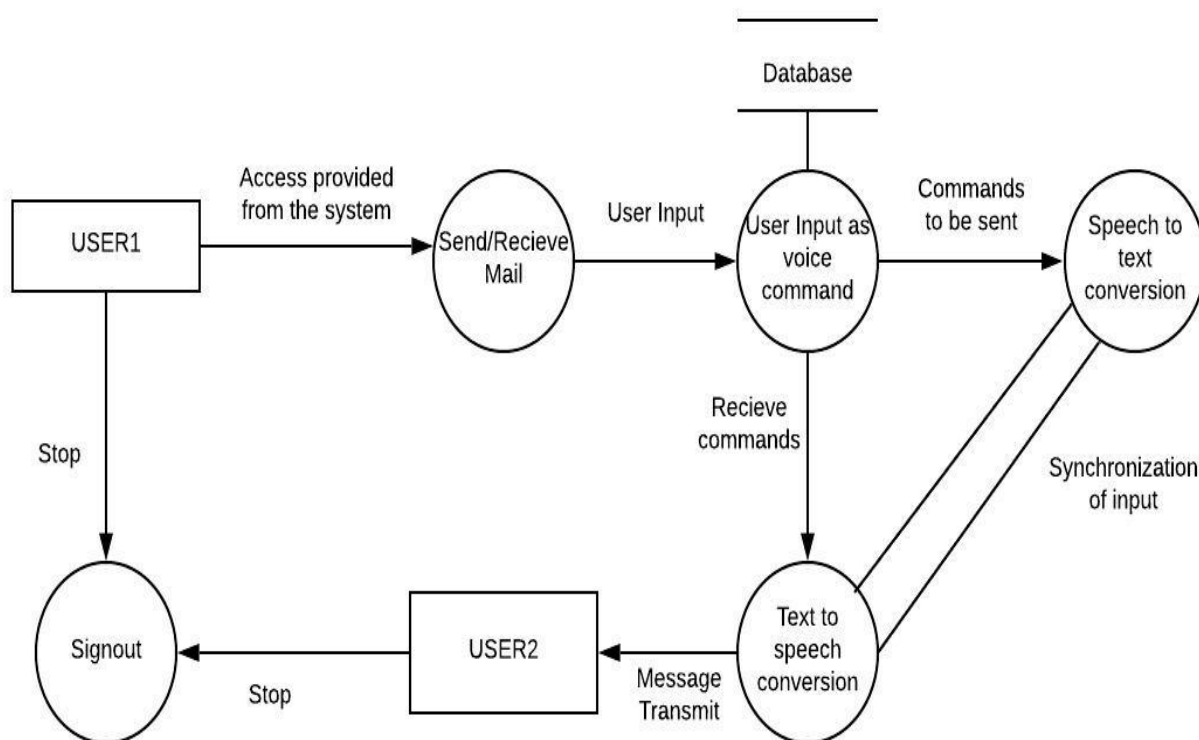


Fig.1 Voice Based Email System

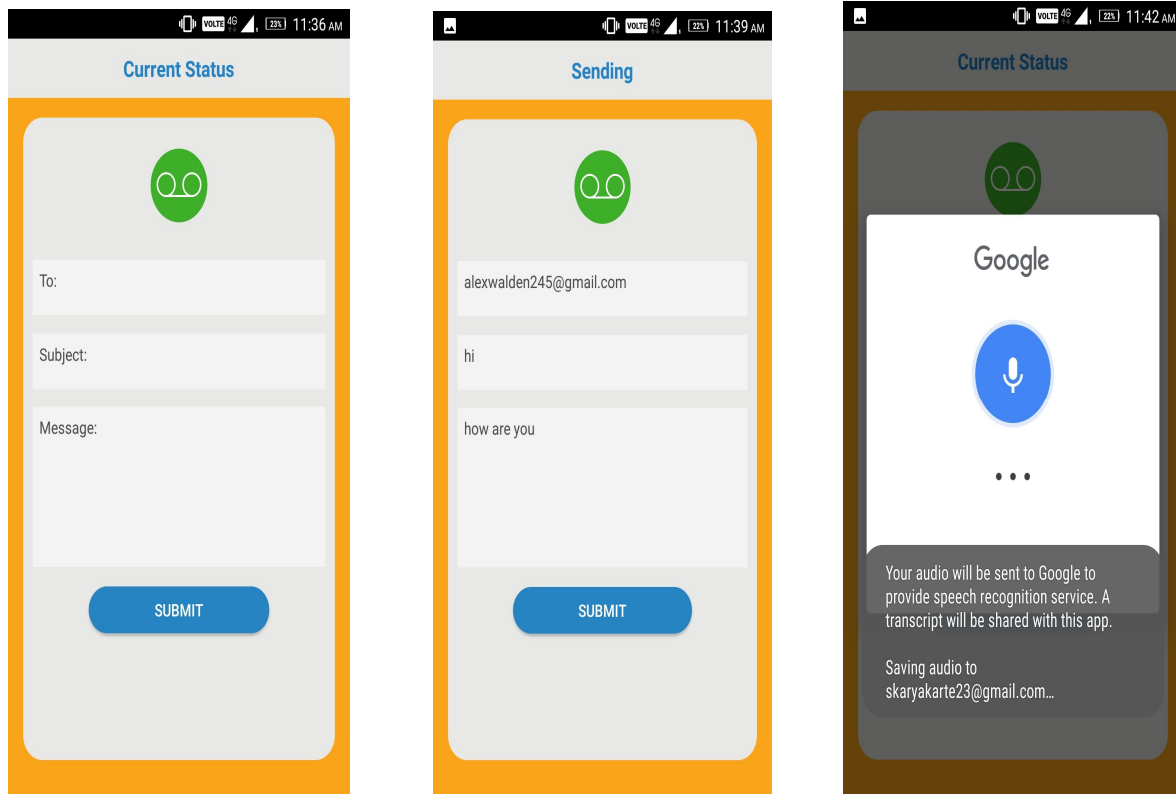
IV. PROTOTYPE ARCHITECTURE

When user will visit the site he would first have to register in website through registration form. User will be very well trained with the help of voice commands, while registrating all the necessary topics to be filled will be read by site, by clicking on that button he would have to fill in them. eg. If cursor moves over register display it would sound “button register”, after clicking on register button it would sound like “you are on registration page”. While filling up the necessary topics, speech would be recorded in database. Very recently used words will be present i.e., when user would speak it would get typed automatically. Also the voice would be recorded in the database of Account. Because after registration, user has to go to login page and type user id & password which would get recognized through database enabling the correct user to get access to their account. After successful login the user would be able to read the received mails present in inbox and also can send the mails.

V. PROPOSED ALGORITHM

WORD RECOGNITION : Speech to text software allows an individual to use their voice instead of typing on a keyboard. Voice recognition system may be used to convert text into the computer or to give commands to the computer. Voice recognition software allows for a fast method of writing onto a computer. It is also useful for people with disabilities like blind people who find it difficult to use the keyboard. This software can also helpful for those who have difficulty with transferring ideas onto paper as it helps take the focus out of the mechanics of writing. Word recognition system is measured as a matter of speed, such that a word with a high level of recognition is read faster than a novel one.

Results



VI. CONCLUSION

This voice based mail system is very effective and helpful for the visually impaired people. This system has the feature of speech to text and text to speech with speech reader which is useful for blind people as well as visually impaired person.

VII. FUTURE SCOPE

The people who can see, e-mailing is not a big task, but for people who are not able to see it poses a key concern because of its intersection with many vocational responsibilities. This voice based email system has effective application as it is used by blind people as they can understand where they are. E.g. whenever cursor moves to any icon on the website say Register it will sound like "Button Register". There are many screen readers available for voice recognition. But people had to remember mouse click events. Rather, this project will reduce this problem as mouse pointer would read out where they lies. This system focuses more on user friendliness of all types of users including regular persons, visually compromised people as well as illiterate.

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