Voice-based email for blind

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Abstract— The Internet has now become the essential comforts for our everyday living. Each individual is generally getting to information and data through the web. Be that as it may, daze individuals face troubles in getting to these content materials, additionally in utilizing any assistance given through the web. The headway in PC based available frameworks has opened up numerous roads for the outwardly impeded over the globe in a wide manner. Sound input based virtual situations like screen per users has helped Blind individuals to get to web applications colossally. We delineate the Voicemail system so that it can be used by a Blind individual to get to emails successfully and capably. The responsibility made by this assessment has enabled the Blind people to send and get voice-based email messages in their native language.

Index Terms— Artificial Intelligence, Convolution Neural Network, Deep learning methodology, Feature learning technique

1. INTRODUCTION

The Internet assumes an essential job in this day and age of correspondence. Today the world is running dependent on the web. No work should be conceivable without the use of the web. Electronic mail for instance email is the most huge piece of regular daily existence. In any case, a portion of the individuals in this day and age don't have the foggiest idea how to utilize the web, some are visually impaired or some are uneducated. So it is hard for them to live in this universe of the web. These days there are different advances accessible in this world like screen per users, ASR, TTS, STT, and so forth yet these are not so productive for them. Around 39 million individuals are visually impaired and 246 individuals have low vision and furthermore 82 of individuals living with visual deficiency are 50 matured or more. We need to make some web offices for them so they can utilize the web. Accordingly, we thought of our venture as a voice-based email framework for blinds which will push a great deal to

outwardly weakened people groups and furthermore ignorant people groups for sending their sends. The clients of this framework don't have to recollect any essential data about console easy routes just as the area of the keys. Straightforward mouse click tasks are required for capacities making the framework simple to use for clients of all ages gathering. Our framework gives an area of where the client is inciting through a voice so the client doesn't need to stress over recollecting which mouse click activity he/she needs to accomplish.

The advantages of this scheme are
- A gap can be bridged between the proper functioning human and visually impaired, and the gap is created due to empathy.
- This model will help them not feel left out in this technological advancing world.
- They can hear the as of late got messages in the Inbox, as well as the IVR innovation has demonstrated power for them regarding direction.

2. RELATED WORK

Essential email systems are available in which simply voice affirmation and substance-to-talk structures are open. Information depends on discourse and mouse snaps to give yield.

3. EXPERIMENTAL

Technology is being developed so that it can ease the work for humans, reduce the communication gap, make the world to work faster and a happy place to live. Most of us are blessed with the vision so we can use the technology without any fail but what for those who face difficulty in their day to day things. They should also be given a chance to be a part of this technical world. Technology is of no use if it can't help the needy. Through this system I want to bridge the gap so that no one feels left out in this never

ending race. This system is basically composed of these parts i.e Speech to text conversion- This will help to convert all the commands into text so that the system could understand what to do next, IVR (Interactive voice response)- It acts as an intermediate between the system and the user .After the command gets converted into text ,system will execute according to it. The voice for each command will be pre-loaded into the system.

I have developed a system for which user has to register that too with the help of voice command. During the registration process we will ask them to enter all their details that include first name, last name, and age phone number, id they want to use and ask them to set the password and again to enter the confirmation for the password. This all option will be audible to the user as we will feed the system with the voices. After this the system will be redirected to the login page again where the user just have enter the id and the password. They will not face any difficulty during this process as they will hear the option and for eg they want to enter login details, they just have to say id and whatever there id is and the cursor will automatically drag to the id option and fill it with the speech to text conversion API. After entering all the details they will be directed towards the dashboard where they can access sent mail, trash and inbox.

4. DESIGN

4.1 CONCEPT BEHIND THE DESIGN

Google Speech-to-Text engages developers to change over the sound to content by applying mind-boggling neural framework models in an easy-to-use API. The API perceives in excess of 120 dialects and variations to help your worldwide client base. You can empower voice order and-control, translate the sound from call focuses, and that's just the beginning. It can process continuous gushing or pre-recorded sound, utilizing Google's AI innovation.

4.2 DESIGN FOR THE DATABASE

Here we use Microsoft Access as a database software application and for database servers we have used MySQL and SQL is the language that we have used to code and store the data of the user.
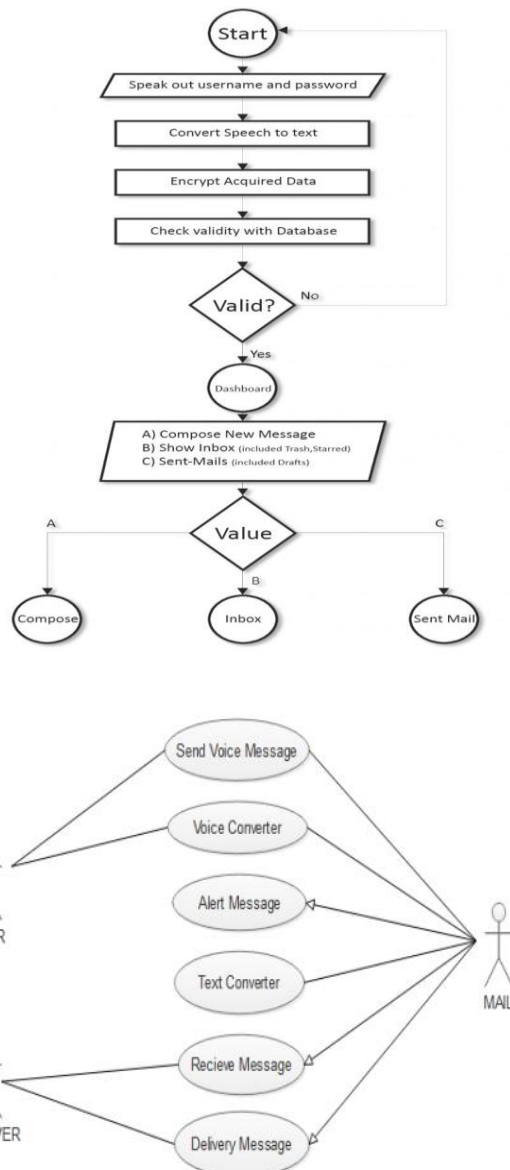
Fig 1: System Flowchart

Fig 2: Use case diagram for user

4.3. DESIGN OF THE SYSTEM

This system is basically developed for visually impared to most of its activities are done with the help of voice based command. But here we not only made this system to be used only by visually impared but also by the proper functioning humans. So the common people might find the voice command irritating so we have given them an option where they can disable the voice command and can use this like a normal email sending platform.

5. EXECUTION

The framework created by us incorporates the accompanying modules as follows:

5.1 Login-On the absolute first page it asks the clients to enter their login credential. As this model is developed keeping in mind the visually impaired user, the system will speak out every option to the user and convert the voice command of the user into speech text using APIs. The system will speak out the option with help of the data we feed into the system. After checking the login id and password, whether they matches correctly with the data store in it the system will jump onto the next step i.e Dashboard. This way of entering the login credential will make sure that there should be no compromise to the security or the safety of the user's data.


5.2 Dashboard-As we have entered the login credential in the very first login page and the system uniquely identifies the user then we are directed towards the dashboard. The dashboard consist of all the option that include inbox where the user can see all the received mail, sent mail where user can see all the mails that have been sent from their account, trash mails where all the mails are stored for temporary period so that they can undo it if they have deleted any mail by mistake or don't want to see any particular mail in there inbox.
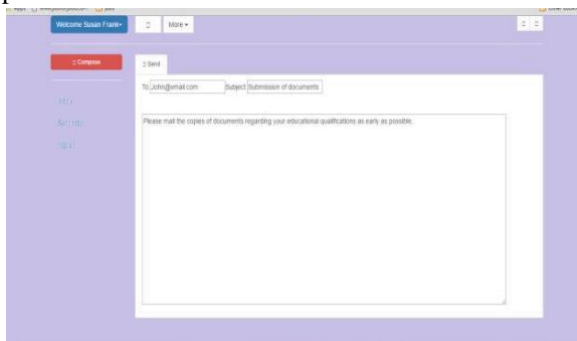

5.3 Inbox-The client can see all the emails received by clicking this option. With this alternative, the framework will consistently provoke the user what to click or which option to select so that they can perform their desired task. The client has the alternative to erase the received email. The erased sends will be put away in the trash segment.
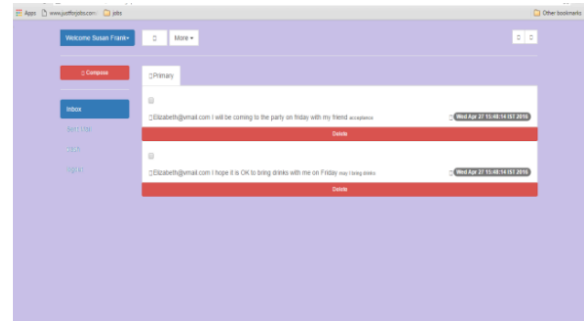
5.4 Sent Mail-This will enable the client to access the sent emails by him/her. The client will be incited with regards to which mouse tasks are to be acted so as to access explicit tasks. As the client explores between sends he/she will be incited about the collector and the subject of that mail. This will give straightforward entry to clients.
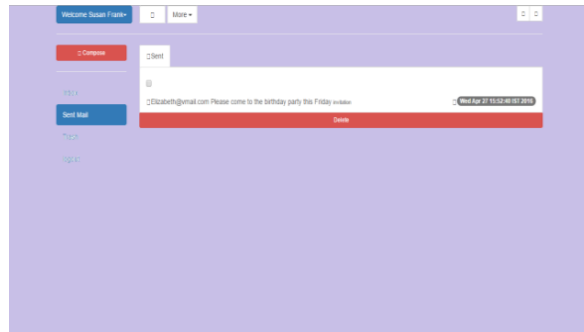
5.5 Trash- If the user doesn't want a particular email to be seen in their inbox he or she can delete that particular email and that email will be stored in the trash for future purpose. If in future they want to access that email they can recover it from the trash mails.
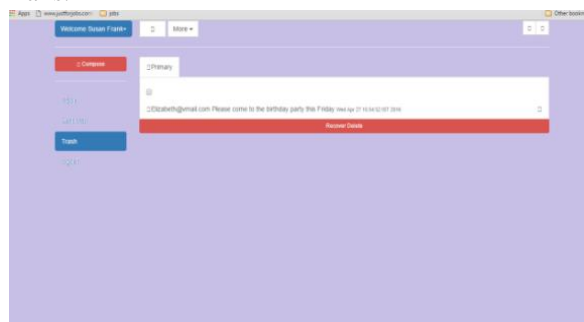
6. FUTURE SCOPE

For those who can see, emailing isn't an enormous deal, except for those who aren't gifted with the power of vision. This voice based email uses Google APIs to convert speech into text that too in 18 languages. System becomes much secure using these APIs as it uniquely identifies the person using it. This method focuses more on the user-friendliness of every kind of person, including regular persons, visually compromised people furthermore as illiterate. It speaks out every option that is available on the screen and whatever the person using the software wishes to select the cursor will automatically drag to that option and this process continues further till the user accesses whatever he or she wants.

7. CONCLUSIONS

The primary explanation or focus to develop this project is that with advancement of technology every human has rights or we can access the latest technology. E-mail has now become the part of that essential daily technical requirement without which humans are incapable to communicate better. Therefore to build the gap between the disable and the proper functioning human we have created this model and hope this will help the upcoming generation that might face difficulty in sending email. Now we can see in any field whether it is not related to computers or IT field email is a formal way of sending the data or giving information related to any work to your team .It's easy for proper functioning humans but those visually impared lag behind .To give them equal opportunity to connect with the world with ease we have given them a platform.

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