



Voice Based Email System for Blinds

Miss. Sanjana Thorat¹, Mr. Ganesh Deshpandey²

^{1,2}Department of Computer Engineering

Gramin Technical and Management Campus, Vishanupuri, Nanded, Maharashtra, India

ABSTRACT:

The ever-increasing use of technology and its limitations opportunities have made it impossible for the current era or the current generations to use the internet technology environment, which is not one of the most used tools. Out of these tools used I wrote why the basic prerequisite has become or works in this way.

In general use or for others who are not even sighted there are different types of screen readers available in the market but they are facing this problem while using the internet will be useful for providing voice.

They will find this paper useful for all applications such as e-mail, calculator, music and various other important daily uses are important.

Keywords: Voice based email, Text-to-speech, Speech-to-text, Speech recognition, IVR

1.Introduction:

Although our culture blames people who are blind, blind people can now use the internet. We have designed a voice email system that even blind people can use. Can use receive emails through voice commands.

No other visual enhancements or keyboards are required for this system based on STT and TTS transformer to translate spoken words into written and audible form respectively.

Users of this system no prior knowledge of the keyboard layout or the positions of the alphabets or their locations. Users will be prompted by voice commands to perform various actions.

2.System Analysis:

Existing system

The application of this system is that it does not require any type of keyboard in send and receive general messages such as voice commands only recognize total text.

So they can know whether their message has been sent or not and they can also know the message received so they don't need any kind of keyboard and can't see what is on the screen so they also benefit from not having to click anywhere on the screen.

It is not known that the first computer for the visually impaired is not very convenient for the average user and people face many difficulties of screen readers in the market.

Purpose of this System

This project we are proposing for the betterment of the society and to help the visually impaired people to be a part of the development of digital India by using the internet and with the success of this project we intend to make the lives of the blind people easier and more bearable by developing something more useful for the blind and illiterate people. Encourage creation of new ones that are equal in society and people with typing problems can also benefit from this system.

Proposed System

We are developing this system mainly to include voice function in email system with the vision that people can give input and then the system will automatically recognize the voice input and then appropriate web page will be opened.

the new output received message and automatically then the web system will complete. A system that is used effectively by everyone.

3. Development Environment

Software Requirement

Front End: HTML, JS, PHP

Back End: My SQL

Server: XAMMP

4. System Architecture

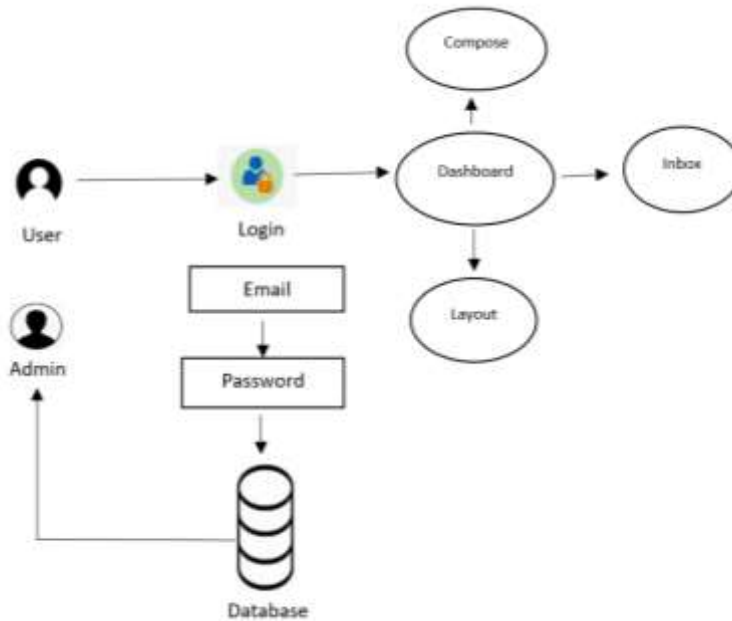


Fig: System architecture

5. Module description:

Registration

The users register their information in this module, then account would be created and produce the confirmation voice message.

1. Go to the account sign in page.
2. Click create account.
3. Enter your name, gender, and your city using voice.
4. In the "Username" field, enter username
5. Enter your password

Login

In this module the user is authenticated that his username and password are correct, if they are correct then the user can access their account or if the user's username and password are incorrect, a voice message is given to the user.

A user can have multiple username like email, phone number which can be username used in login form.

The system checks the user's username and password are correct or not and then the system will be load.

When the user enter their username and password in the login form then it is checked by the system whether he is allowed to access the software or not. After the user login the user cannot forward the login page.

Username and password

Take username and password as user string input. Check if the username matches the password. If it matches, welcome user. Otherwise it says "Your username and password are incorrect".

Dashboard

This module has capture the user's voice input and then opens the relevant page. The pages are Compose, Inbox and Logout.

Compose

This module sends a user's message to other users and contains the recipient's email id, subject, message and file (this action can only be done with the mouse). An attachment is just a file (like an image or document) which will be sent with your email.

For example, if you are applying for a job, you can send your resume as an attachment and the email part is a cover letter. It's a good idea to include a message in the body of your email explaining what the attachment is, especially if the recipient isn't expecting an attachment.

In email composer comprises of five modules, that is the processing user voice input, comparing voice with pre-recorded samples, text writing, verifying the output text and send emails. The input is given by the user through his/her voice.

In voice processing, The application will use installed libraries for voice recognition and voice processing. The first activity in the convolution of voice to text and second activity is authenticate the user.

The modules of our project is—

1. Compose and sending Mail
2. Reading a mail from inbox

In composing the SMTP library which is a python library is used for sending the emails using SMTP. Here, send mail method and login method are used and here as we using G-mail. We are passing G-mail as SMTP server. Then second is reading a mail from inbox. In inbox as we are reading a mail.

6.USE CASE DIAGRAM :

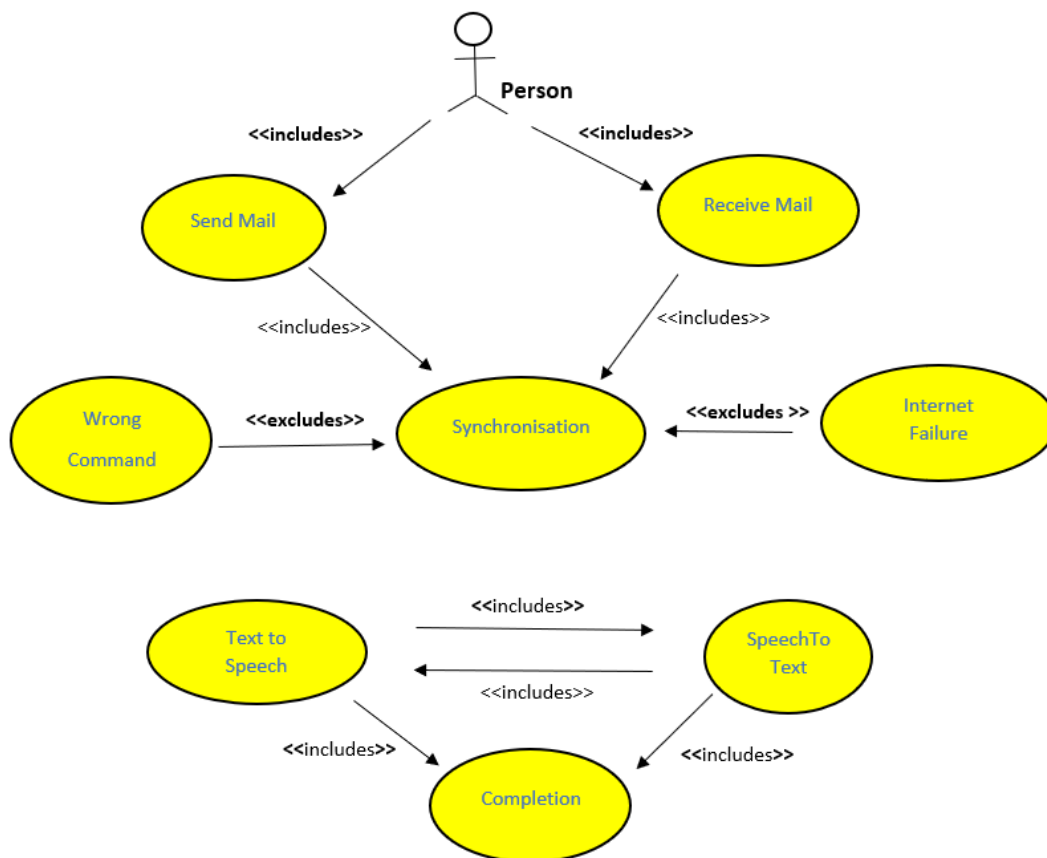


Fig : Use Case Diagram

So this is the use case diagram of our project.

This is the use case diagram describing the process along with the technique.

7. Conclusion :

This includes the development of real-time e-mail interaction system for the visually impaired. I have planned to develop a system that could facilitate the visually challenged individuals to access email services in an efficient and easy way This system requires the system user to hear the voice commands and respond accordingly to achieve the desired action as this system will reduce the amount of memorization of the keyboard shortcuts. While using it and this system is most necessary and important for person with disabilities.

8. Future Enhancement :

Security is the main focus of the future. When the user can send and receive e-mails in any of their native language and this system is more efficient it is used by blind people as they can understand where they are for example when your cursor touch any icon on the website say register it will sound like "Register Button" it will definitely help the blind person for the development and it becomes one of the great want to remove the dark side of the blind persons.

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