PROJECT REPORT

On

**Voice based Email service for visually challenged people**



In

**Computer SCIENCE AND engineering**

UNDER THE SUPERVISION OF

**MR.SAURABH MISHRA(RESOURCE PERSON)**

*By*

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**CERTIFICATE**

This is certified that Miss. Nandini Gupta (Roll no.-2014421) have developed mini project on “voice based email service for visually challenged people” for the CS fourth semester mini project lab in Graphic Era University, Dehradun the project carried out by students in their own work as best of my knowledge.

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**ABOUT**

The project is a python-based application for visually impaired persons using speech to text voice response, thus enabling everyone to control their mail accounts using their voice only and to be able to send email, through their Gmail accounts.

The system will prompt the user with voice commands to perform certain actions and the user will respond to the same. The main benefit of this system is that the use of mouse is completely eliminated, the user will have to respond through voice only.

**introduction**

**MOTIVATION-:**

This system is created to help the blind or partially blind people and the people who are illiterate . This is the main and important motive of this system. This project is an application for a visually impaired user or an illiterate user who wishes to use the email services just like any other normal human being. This system will help in overcoming some of the drawbacks that were earlier faced by the visually impaired people in accessing emails. Only certain keyboard shortcuts will be used in this system. Other than that, the use of keyboard is eliminated. This is the major advantage since there is no need to remember the location of keys on the keyboard. The main motive behind this  
is that the user need not to remember the functions on keyboard.

**INSTALLATION:-**

1. **PYTHON 3.9 :**

First thing that we need to install in our system is python 3.9 version. We also can install old version of python as well, but Python 3.9.1 is the newest major release of the Python programming language, and it contains many new features and optimizations.

LINK TO DOWNLOAD PYTHON3.9-

<https://www.python.org/downloads/release/python-390/>

**2.PYCHARM:**

**PyCharm** is an integrated development environment (IDE) used in computer engineering, specifically for the python language. It is developed by the Czech company JetBrains. It provides code analysis, a graphical debugger, an integrated unit tester, integration with version control systems (VCSes), and supports web development with Django as well as data science with Anaconda.

PyCharm is cross-Platform, with Windows, macOS and Linux versions. The Community Edition is released under the Apache License and there is also Professional Edition with extra features – released under a proprietary license.

LINK TO DOWNLOAD PYCHARM –

<https://www.jetbrains.com/pycharm/download/#section=windows>

**3.PYAUDIO:**

PyAudio provides Python bindings for Port Audio, the cross-platform audio I/O library. With PyAudio, you can easily use Python to play and record audio on a variety of platforms.

* Select your architecture and download [Pyaudio](https://www.lfd.uci.edu/~gohlke/pythonlibs/#pyaudio) from this link.
* Open the terminal where you have kept your .whl file and add the following command in terminal.
* Pip install Pyaudio-0.2.11-cp37-cp37m-win\_amd64.whl

**4.SPEECH RECOGNITION:**

Speech recognition, as the name suggests, refers to automatic recognition of human speech. Several speech recognition libraries have been developed in Python.

* Open the terminal and go to your project file location and add the following command in terminal.
* Pip install SpeechRecognition

**5.PYTHON TEXT TO SPEECH:**

PYTTSX3 is a Python library, which is a very easy library that converts the text into audio. The play sound module is used to play audio files. With this module, we can play a sound file with a single line of code.

* Open the terminal and go to your project file location and add the following command in terminal.
* Pip install pyttsx3

**SOFTWARE REQUIREMENTS**:-

**Tools Used:**

* Python IDLE
* Google Speech to text and text to Speech Converters.
* Pyttsx3 text to speech api in python.
* PyCharm

**HARDWARE REQUIREMENTS:-**

* Windows Desktop or Laptop.

**REFERENCE**

* [**YOUTUBE**](https://www.youtube.com/)
* [**GEEKFORGEEKS**](https://www.geeksforgeeks.org/)
* [**W3SCHOOLS**](https://www.w3schools.com/)