Voice Assistant

Introduction

In today's fast-paced world, we all are looking for tools that can simplify our daily tasks and save us time. One such tool is a Voice Assistant that can perform tasks through voice commands. Voice Assistant is an artificial intelligence (AI) program that can recognize and interpret human speech and respond accordingly. This project is a Python-based Voice Assistant that utilizes several libraries such as SpeechRecognition and gTTS to perform tasks through voice commands.

The main objective of building a Voice Assistant software is to provide a user-friendly, efficient and reliable tool that can perform various tasks through voice commands. This can be particularly useful for individuals who are unable to type, for example, people with disabilities, or those who need to multitask while performing various tasks such as cooking or driving.

Python Libraries used in the project:

The following are the Python Libraries used in this project:

- datetime: This library is used for working with dates and times.
- json: This library is used to encode and decode JSON data.
- os: This library provides a way of using operating system-dependent functionality.
- webbrowser: This library is used to open web browsers.
- webbrowser as wb: This is an alias of the webbrowser library.
- urllib.request: This library is used to open URLs.
- psutil: This library is used to get system information, including CPU utilization.
- pyautogui: This library is used to take screenshots.
- pyjokes: This library is used to generate random jokes.
- pyttsx3: This library is used to convert text to speech.
- pywhatkit: This library is used to perform various tasks such as sending WhatsApp messages, playing YouTube videos, etc.
- requests: This library is used to send HTTP requests using Python.
- speech_recognition: This library is used to recognize speech.
- wikipedia: This library is used to get information from Wikipedia.

- geopy: This library is used to get the geolocation of a given address.

Features of the Voice Assistant:

The Voice Assistant can perform the following tasks through voice commands

- Time and Date: The user can ask for the current time and date, and the Voice Assistant will respond with the current time and date.
- Open Websites: The user can ask the Voice Assistant to open any website, and the Voice Assistant will open the website in a web browser.
- Search the Web: The user can ask the Voice Assistant to search the web for any information, and the Voice Assistant will use the search engine to provide the information.
- Send Emails: The user can ask the Voice Assistant to send an email, and the Voice Assistant will compose and send the email.
- Take Notes: The user can ask the Voice Assistant to take notes, and the Voice Assistant will record the notes and save them in a text file.
- Play Music: The user can ask the Voice Assistant to play music, and the Voice Assistant will play the requested song.
- Get the Latest News: The user can ask the Voice Assistant to provide the latest news, and the Voice Assistant will use the news API to provide the latest news.
- Weather Forecast: The user can ask the Voice Assistant to provide the weather forecast, and the Voice Assistant will use the weather API to provide the weather forecast.
- Control Computer: The user can ask the Voice Assistant to perform various tasks such as shutting down the computer, taking a screenshot, or controlling the volume of the computer.
- Random Jokes: The user can ask the Voice Assistant to tell a random joke, and the Voice Assistant will generate a random joke.