

Voice Assistant: Features and Functionality

This Python-based voice assistant integrates **speech recognition** and **text-to-speech (TTS)** capabilities to provide an interactive experience. The assistant can respond to various voice commands and perform tasks such as checking the weather, fetching the current time, setting reminders, sending emails, and exiting the application when prompted.

Features:

1. **Speech Recognition & Text-to-Speech:**
 - Uses the `speech_recognition` and `pyttsx3` libraries to recognize user commands and respond using synthesized speech.
2. **Fetch Current Time:**
 - When the user asks for the time, the assistant retrieves the current system time and announces it in a user-friendly format.
3. **Weather Updates:**
 - The assistant fetches real-time weather updates using the **OpenWeather API**.
 - Upon receiving the "weather" command, it prompts the user for a city name and provides temperature and weather conditions for that location.
4. **Send Emails:**
 - The assistant can send emails through **SMTP**.
 - It prompts the user for the recipient's email, subject, and message before sending the email.
 - **Security Note:** The script currently includes a placeholder for the sender's credentials, which should be securely stored using environment variables instead.
5. **Set Reminders:**
 - Users can set reminders, which are stored in a text file (`reminders.txt`) for later reference.
6. **Exit the Application:**
 - The assistant can terminate the program when the user says "exit" or "quit."

Working Process:

- The program continuously listens for commands.
- It processes the user's speech input and executes relevant tasks.
- If an unrecognized command is received, the assistant informs the user that it cannot handle the request.

This assistant provides a basic yet powerful framework for voice-controlled automation, with potential for further enhancements such as alarm features, integrating a database for reminders, or improving security for email handling.