

Voice Assistant

A Python-based **Voice Assistant** that can perform various tasks like playing music, setting alarms/reminders, reading clipboard content, fetching weather, opening applications, telling jokes/quotes, searching Wikipedia, and more. The assistant can run in the background with a system tray icon and responds to voice commands using a wake word.

Features

- **Voice Recognition & Commands**
 - Wake word detection (assistant)
 - Greeting based on time of day
 - Weather updates
 - Search Wikipedia
 - Read clipboard content
 - Play music from a directory
 - Tell jokes and motivational quotes
 - Check system “feeling” based on CPU/memory usage
 - **Task Automation**
 - Set alarms with notifications
 - Take notes and save to file
 - Set reminders for tasks at specific times
 - Open common applications like Google, YouTube, Notepad, Calculator, Visual Studio Code
 - **Background Mode**
 - Runs in the background with optional system tray support
 - Logs activities to a `voice_assistant.log` file
 - **Cross-Platform Considerations**
 - Compatible with Windows
 - Optional system tray icon using `pystray` and `Pillow`
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Installation

1. Clone the repository

```
git clone https://github.com/Tapaswini005/Voice-Recognition-for-Smart-Assistant.git
cd voice-assistant
```

2. Install dependencies

```
pip install -r requirements.txt
```

Dependencies include:

- speechrecognition
- pyttsx3
- wikipedia
- pyjokes
- psutil
- pyperclip
- schedule
- pystray (optional)
- pillow (optional)

3. Run the assistant

```
python voice_assistant.py
```

Usage

- Say “**assistant**” to wake up the assistant.
- Commands you can try:
 - play music
 - set alarm for 14:30
 - take note Buy groceries
 - set reminder call mom at 17:00
 - read clipboard
 - open YouTube
 - search Python programming
 - tell joke
 - tell quote
 - how are you?
 - goodbye to stop the assistant

Project Structure

```
voice-assistant/
├── assets/
│   └── music/           # Store music files here
├── notes/               # Notes saved by the assistant
├── reminders/          # Reminders saved by the assistant
├── voice_assistant.py   # Main assistant script
├── requirements.txt     # Python dependencies
└── README.md
```

System Tray Support

If `pystray` and `Pillow` are installed, the assistant creates a system tray icon with the following options:

- **Status:** Shows if the assistant is running
 - **Show Log:** Opens the activity log
 - **Restart:** Restarts the assistant
 - **Exit:** Stops the assistant
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Logging

All actions and errors are logged in `voice_assistant.log` for debugging and monitoring purposes.

License

This project is open-source under the **MIT License**.