Project Title: Personal AI - Your Voice-Activated Assistant

**Project Description:**

Personal AI is a Python-based voice assistant designed to simplify your daily tasks through intuitive voice commands and natural language understanding. Leveraging Google's Gemini AI and robust speech recognition, Personal AI empowers you to perform a variety of functions, including:

* **Seamless Web Browsing:** Effortlessly open websites by voice command (e.g., "Open YouTube," "Open Amazon"). Personal AI intelligently handles both predefined websites and general web searches.
* **Engaging Conversational AI:** Participate in natural and context-aware conversations powered by Google's Gemini AI. Personal AI retains conversation history within a session for more relevant interactions.
* **Instant Time Information:** Retrieve the current time with a simple voice prompt.
* **Local Music Playback:** Enjoy your local music files with voice commands.
* **AI-Driven Information Retrieval:** Utilize AI to answer questions and gather information from the web.
* **Flexible Chat History Management:** Easily reset or clear the chat history as needed.

**Key Features:**

* **Accurate Voice Recognition:** Employs the speech\_recognition library for precise voice command interpretation.
* **Advanced Natural Language Processing (NLP):** Integrates Google's Gemini AI for natural conversations and intelligent information retrieval.
* **Automated Web Interaction:** Utilizes the webbrowser module to streamline website access and web searches.
* **Clear Text-to-Speech Output:** Uses win32com.client for natural and understandable voice feedback.
* **Dynamic Website Integration:** Adapts to user behavior by adding newly opened websites to its internal list.
* **Robust Error Handling:** Implements comprehensive error handling to manage unexpected inputs and network disruptions gracefully.

**Technologies Used:**

* Python
* speech\_recognition
* win32com.client
* webbrowser
* google-generativeai
* requests
* re
* urllib.parse

**Target Audience:**

This project is ideal for individuals seeking to:

* Enhance their productivity through voice-controlled automation.
* Experience the convenience of an intelligent voice assistant.
* Explore the capabilities of natural language processing and voice recognition.

**Future Enhancements:**

* Integration with real-time weather and news APIs.
* Expanded music playback features, including specific song selection.
* Improved error handling and enhanced user feedback mechanisms.
* Refined website handling for greater accuracy.

This project showcases the potential of combining voice recognition and AI to create a practical and user-friendly personal assistant.