

# Sydney: Voice Activated AI Assistant



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# **Sydney: Voice Activated AI Assistant**

Sydney is a voice-activated virtual assistant designed to perform tasks such as web browsing, playing music, fetching news, and responding to user queries using Google's Gemini-1.5-Flash model.

## **Features:**

- ❖ Utilizes the speech\_recognition library to recognize voice commands
- ❖ Activates upon detecting the wake word "Sydney"
- ❖ Converts Text to Speech using pyttsx-3 for local conversion and playback
- ❖ Opens websites like Instagram, Google, Youtube, LinkedIn and Spotify based on voice commands
- ❖ Interfaces with the musicLibrary module to play songs via web links
- ❖ Fetches and reads the latest news headings using the NewsAPI
- ❖ Handles complex queries and generates responses using Google's Gemini 1.5 Flash Model (free version)
- ❖ Acts as a general virtual assistant such as Alexa or Google Assistant
- ❖ Uses streamlit for the UI

## **Workflow:**

- ❖ Initialization
- ❖ Greets user with "Initializing Sydney...."
- ❖ Wake word detection
- ❖ Listens for the wake word "Sydney"
- ❖ Acknowledges Activation with the wake word "Yes"
- ❖ You can speak once it displays "Sydney Active"
- ❖ Command Processing
- ❖ Processes commands to determine actions such as opening a website, playing music, fetching news via NewsAPI, or generating a response via Gemini
- ❖ Speech Output
- ❖ Provides responses using speak function with pyttsx3
- ❖ It goes on in an infinite loop until you close the program

## **Libraries Used:**

- ❖ speech\_recognition
- ❖ webbrowser
- ❖ pyttsx3
- ❖ musicLibrary
- ❖ requests
- ❖ google.generativeai
- ❖ streamlit