

## Python JARVIS Project Guide

This guide explains the command-line version of the JARVIS AI Assistant.

### File: main.py

This project is a Python script that runs in your computer's terminal. It uses a different set of libraries than the web-based version to interact with your system.

### Key Components

- **Python Libraries:**
  - `speech_recognition`: Handles the speech-to-text conversion.
  - `PyAudio`: A dependency for `speech_recognition` to access the microphone.
  - `google-generativeai`: The official library for making calls to the Gemini API.
  - `webbrowser`: A built-in Python library that opens websites in your default browser.
  - `python-dotenv`: A key library for securely managing your API key by loading it from a `.env` file.

### How to Use

1. **Install Libraries:** Open your terminal and run the following command to install all the required libraries:  
`pip install SpeechRecognition PyAudio google-generativeai python-dotenv`
2. **Create a .env file:** In the same folder where you saved `main.py`, create a new file named `.env`.
3. **Add your API Key:** Inside the `.env` file, add your API key in the following format. Replace `YOUR_API_KEY_HERE` with your actual key.  
`GEMINI_API_KEY=YOUR_API_KEY_HERE`

**Security:** It is crucial that you **do not** share this file or commit it to a public code repository.

4. **Run the Script:** From your terminal, navigate to the project directory and run the script:  
`python main.py`

The program will say "JARVIS systems online. Awaiting your command." and start listening.