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Language Translator using Google API

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TITLE

Language Translator
using Google API

PROBLEM STATEMENT

Develop a python project which does language translator using Google API. Use any native language

DETAILED REQUIREMENTS

- Knowledge of Python
- Understanding of Google API
- Understanding of tkinter library to take in voice input and display output.
- Understanding of googlettrans and speech_recognition libraries.

SOFTWARE TOOLS USED

- Visual Studio Code
- Git
- GitHub
- Python 3.11
- Tkinter library
- Googletrans library
- Speech_recognition library
- Gtts library

PROPOSED SOLUTION

- **Graphical User Interface (GUI):** Create a basic GUI using tkinter with a single button (e.g., microphone symbol) to initiate voice input.
- **Voice Input:** Implement voice input using the speech_recognition library when the user clicks the microphone button.
- **Translation:** Utilize the googletrans library to translate the captured voice input into a target language.
- **Text-to-Speech Output:** Use the gTTS library to convert the translated text into speech for output.

PROPOSED SOLUTION

- **Asynchronous Processing:** Implement threading to ensure the GUI remains responsive during voice capture and translation.
- **Error Handling:** Handle potential errors during voice recognition and translation to provide a smooth user experience.
- **Dynamic Language Selection:** Allow users to dynamically select the target language (e.g., through a dropdown or input).
- **User Feedback:** Provide clear feedback to the user, such as displaying the translated text on the GUI and potentially using visual indicators for the translation process.

TOTAL HOUR & WORKS

This project will require around 40 days.
20 days for one person.



Thank you