

readme.md

AI Based English Speaking Practice Bot

Overview

Welcome to **SpeakBuddy**! This application offers three main features to help you practice and improve your English skills:

1. **Pronunciation Helper:** Convert text to speech and listen to the correct pronunciation.
2. **Conversation Practice:** Record your voice and receive feedback on grammar and vocabulary.
3. **Synonym Finder:** Find synonyms for a given word in English and Urdu.

Features

- **Pronunciation Helper:**
 - Enter text and generate an audio file that pronounces the text.
 - Ideal for practicing pronunciation and listening.
- **Conversation Practice:**
 - Record your voice to get detailed feedback on grammar and vocabulary.
 - Uses advanced models for real-time transcription and feedback.
- **Synonym Finder:**
 - Enter a word to receive its synonyms in English.
 - Translates these synonyms into Urdu for better understanding.

Models and Libraries

The application uses several powerful models and libraries:

- **[Gradio](#):** An easy-to-use interface library for creating interactive web applications. It allows seamless integration of machine learning models with user-friendly UIs.
- **[gTTS \(Google Text-to-Speech\)](#):** A Python library and CLI tool to extract the spoken text from videos or audios using Google's Text-to-Speech API.

- [Whisper](#): A general-purpose speech recognition model developed by OpenAI, used for transcribing spoken language into text.
- [Groq](#): A high-performance AI platform that provides API access to Llama3, a model used for generating detailed feedback on grammar and vocabulary.
- [NLTK \(Natural Language Toolkit\)](#): A library for working with human language data (text), providing tools for text processing and linguistic data analysis.
- [Deep Translator](#): A Python library for translation using various translation engines, including Google Translate.

How to Use

1. Pronunciation Helper:

- Go to the "Pronunciation" tab.
- Enter your text in the provided textbox.
- Click "Check Pronunciation" to get the audio output.

2. Conversation Practice:

- Go to the "Conversation Practice" tab.
- Record your voice using the microphone button.
- Get real-time feedback on your speech.

3. Synonym Finder:

- Go to the "Synonym Finder" tab.
- Enter a word to see its English and Urdu synonyms.

Setup

Requirements

Ensure you have the following Python packages installed. You can install them using **pip**:

```
pip install gradio gTTS whisper groq numpy librosa nltk deep-translator
```