

Language translator

App.py

```
from flask import Flask, render_template, request, jsonify
from googletrans import Translator
from gtts import gTTS
import os
import speech_recognition as sr

app = Flask(__name__)
translator = Translator()

@app.route('/')
def index():
    return render_template('index.html')

@app.route('/text')
def text_page():
    return render_template('text.html')

@app.route('/voice')
def voice_page():
    return render_template('voice.html')

@app.route('/translate', methods=['POST'])
def translate_text():
    data = request.json
    from_lang = data.get("from")
    to_lang = data.get("to")
    text = data.get("text")

    translated = translator.translate(text, src=from_lang, dest=to_lang)
    translated_text = translated.text
```

```
tts = gTTS(text=translated_text, lang=to_lang, slow=False)
filename = "static/speech.mp3"
tts.save(filename)

return jsonify({
    "translated": translated_text,
    "audio_url": "/" + filename
})

@app.route('/voice_translate', methods=['POST'])
def voice_translate():
    recognizer = sr.Recognizer()

    with sr.Microphone() as source:
        recognizer.adjust_for_ambient_noise(source)
        print("Listening...")
        audio = recognizer.listen(source)

    try:
        text = recognizer.recognize_google(audio)
        print("You said:", text)

        to_lang = request.json.get("to")
        translated = translator.translate(text, src="en", dest=to_lang)
        translated_text = translated.text

        tts = gTTS(text=translated_text, lang=to_lang, slow=False)
        filename = "static/speech.mp3"
        tts.save(filename)

    return jsonify({
        "original": text,
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        "translated": translated_text,
        "audio_url": "/" + filename
    })

except sr.UnknownValueError:
    return jsonify({"error": "Could not understand your voice"}), 400
except sr.RequestError:
    return jsonify({"error": "Speech recognition service error"}), 500

if __name__ == '__main__':
    if not os.path.exists("static"):
        os.makedirs("static")
    app.run(debug=True)

```

Index.html

```

<!DOCTYPE html>

<html lang="en">
    <head>
        <meta charset="UTF-8">
        <title>Select Input </title>
        <style>
            body { font-family: Arial; text-align: center; margin-top: 100px; }
            button { padding: 15px 25px; margin: 20px; font-size: 18px; }
        </style>
    </head>
    <body>
        <h1>🌐 Language Translator </h1>
        <h2>Select Input Type</h2>
        <a href="/text"><button>Text Input</button></a>
        <a href="/voice"><button>Voice Input</button></a>
    </body>
</html>

```

Texxt.html

```
<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Text Translator</title>
    <style>
        body { font-family: Arial, sans-serif; text-align: center; padding: 30px; }
        select, input, button { margin: 10px; padding: 8px; font-size: 16px; }
        #result { margin-top: 20px; font-size: 18px; font-weight: bold; }
        audio { margin-top: 20px; }
    </style>
</head>
<body>
    <h1>  Text Translator</h1>
    <a href="/">← Back</a>
    <br><br>

    <label>From:</label>
    <select id="fromLang">
        <option value="en">English</option>
        <option value="hi">Hindi</option>
        <option value="kn">Kannada</option>
        <option value="ta">Tamil</option>
        <option value="te">Telugu</option>
        <option value="ml">Malayalam</option>
        <option value="mr">Marathi</option>
        <option value="gu">Gujarati</option>
        <option value="bn">Bengali</option>
        <option value="ur">Urdu</option>
        <option value="pa">Punjabi</option>
        <option value="ar">Arabic</option>
```

```
<option value="zh-CN">Chinese (Simplified)</option>
<option value="zh-TW">Chinese (Traditional)</option>
<option value="ja">Japanese</option>
<option value="ko">Korean</option>
<option value="fr">French</option>
<option value="de">German</option>
<option value="es">Spanish</option>
<option value="ru">Russian</option>
<option value="pt">Portuguese</option>
<option value="it">Italian</option>
<option value="nl">Dutch</option>
<option value="el">Greek</option>
<option value="tr">Turkish</option>
<option value="fa">Persian</option>
<option value="th">Thai</option>
<option value="vi">Vietnamese</option>
<option value="sw">Swahili</option>
<option value="ne">Nepali</option>
<option value="si">Sinhala</option>
<option value="sa">Sanskrit</option>
<option value="tl">Filipino</option>
</select>
```

```
<label>To:</label>
<select id="toLang">
<option value="en">English</option>
<option value="hi">Hindi</option>
<option value="kn">Kannada</option>
<option value="ta">Tamil</option>
<option value="te">Telugu</option>
<option value="ml">Malayalam</option>
<option value="mr">Marathi</option>
```

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<option value="gu">Gujarati</option>
<option value="bn">Bengali</option>
<option value="ur">Urdu</option>
<option value="pa">Punjabi</option>
<option value="ar">Arabic</option>
<option value="zh-CN">Chinese (Simplified)</option>
<option value="zh-TW">Chinese (Traditional)</option>
<option value="ja">Japanese</option>
<option value="ko">Korean</option>
<option value="fr">French</option>
<option value="de">German</option>
<option value="es">Spanish</option>
<option value="ru">Russian</option>
<option value="pt">Portuguese</option>
<option value="it">Italian</option>
<option value="nl">Dutch</option>
<option value="el">Greek</option>
<option value="tr">Turkish</option>
<option value="fa">Persian</option>
<option value="th">Thai</option>
<option value="vi">Vietnamese</option>
<option value="sw">Swahili</option>
<option value="ne">Nepali</option>
<option value="si">Sinhala</option>
<option value="sa">Sanskrit</option>
<option value="tl">Filipino</option>
</select>

<br>
<input type="text" id="textInput" placeholder="Enter text here" size="50">
<br>
<button onclick="translateText()">Translate</button>
```

```
<div id="result"></div>

<audio id="audio" controls></audio>

<script>

async function translateText() {

    const from = document.getElementById("fromLang").value;
    const to = document.getElementById("toLang").value;
    const text = document.getElementById("textInput").value;

    const response = await fetch("/translate", {
        method: "POST",
        headers: { "Content-Type": "application/json" },
        body: JSON.stringify({ from, to, text })
    });

    const data = await response.json();
    document.getElementById("result").innerText = "Translated: " + data.translated;
    document.getElementById("audio").src = data.audio_url;
}

</script>
</body>
</html>
```

Voice.html

```
<!DOCTYPE html>

<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Voice Translator</title>
    <style>
        body { font-family: Arial, sans-serif; text-align: center; padding: 30px; }
        select, button { margin: 10px; padding: 10px; font-size: 16px; }
        #result { margin-top: 20px; font-size: 18px; font-weight: bold; }
        audio { margin-top: 20px; }
    </style>
</head>
<body>
    <h1>🎤 Voice Translator</h1>
    <a href="/">⬅ Back</a>
    <br><br>

    <label>Translate to:</label>
    <select id="toLang">
        <option value="en">English</option>
        <option value="hi">Hindi</option>
        <option value="kn">Kannada</option>
        <option value="ta">Tamil</option>
        <option value="te">Telugu</option>
        <option value="ml">Malayalam</option>
        <option value="mr">Marathi</option>
        <option value="gu">Gujarati</option>
        <option value="bn">Bengali</option>
        <option value="ur">Urdu</option>
        <option value="pa">Punjabi</option>
        <option value="ar">Arabic</option>
    </select>
</body>
```

```
<option value="zh-CN">Chinese (Simplified)</option>
<option value="zh-TW">Chinese (Traditional)</option>
<option value="ja">Japanese</option>
<option value="ko">Korean</option>
<option value="fr">French</option>
<option value="de">German</option>
<option value="es">Spanish</option>
<option value="ru">Russian</option>
<option value="pt">Portuguese</option>
<option value="it">Italian</option>
<option value="nl">Dutch</option>
<option value="el">Greek</option>
<option value="tr">Turkish</option>
<option value="fa">Persian</option>
<option value="th">Thai</option>
<option value="vi">Vietnamese</option>
<option value="sw">Swahili</option>
<option value="ne">Nepali</option>
<option value="si">Sinhala</option>
<option value="sa">Sanskrit</option>
<option value="tl">Filipino</option>
</select>
```

```
<br>
<button onclick="recordVoice()">🎙 Speak & Translate</button>
<div id="result"></div>
<audio id="audio" controls></audio>
```

```
<script>
async function recordVoice() {
  const to = document.getElementById("toLang").value;
```

```
const response = await fetch("/voice_translate", {  
    method: "POST",  
    headers: { "Content-Type": "application/json" },  
    body: JSON.stringify({ to })  
});  
  
const data = await response.json();  
  
if (data.error) {  
    document.getElementById("result").innerText = "⚠ " + data.error;  
} else {  
    document.getElementById("result").innerText =  
        "You said: " + data.original + "\nTranslated: " + data.translated;  
    document.getElementById("audio").src = data.audio_url;  
}  
}  
}  
</script>  
</body>  
</html>
```