

## 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,
```

```

        "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>
```

```
<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>
```



```
<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>
```