

# Language Translator

**Submitted To,**

Sr.Itallia Maria Jospheh

Assistant Professor

PG Department Of Computer Applications

Date: 11-09-2024

**Submitted by,**

Ambika M K

23PMC108

2<sup>nd</sup> MCA

**Github link:** <https://github.com/ambikamk/LanguageTranslator.git>

**Deployed link:** <https://languagetranslator-8gk8edykbegxr5jamdpjk6.streamlit.app/>

## Components:

### 1. Google Translator Integration:

- Uses `googletrans` with a `Translator` object to perform translations.

### 2. Language Detection:

- `get_language_code()` function converts language names (like "French") to language codes (like 'fr').

### 3. Retry Mechanism:

- `translate_text_with_retry()` handles translation attempts with up to 3 retries if an error occurs, addressing 'NoneType' issues.

### 4. Custom UI Styling:

- Custom CSS applied via `st.markdown()` enhances the visual appeal of input fields, buttons, and other elements.

## User Interface:

- **Title and Description:** Provides an introduction and instructions.
- **Text Area:** For users to input the text they wish to translate.
- **Source Language:** Selected from a dropdown menu.
- **Target Language:** Entered by name in a text input field.
- **Translate Button:** Initiates the translation process.
- **Result Display:** Shows translated text or error messages.
- **Supported Languages:** Checkbox to display a list of all supported languages.

## Flow of the Application:

### 1. Input Handling:

- Users provide text and select the source language.
- Target language is entered as a name, which is converted to a code.

### 2. Translation Process:

- On clicking "Translate," the app verifies the input and performs translation using `translate_text_with_retry()`.
- Displays the translated text or an error message based on the result.