Team name:- Deep Thinkers

Project name:- Language Translator Using Sequence Model

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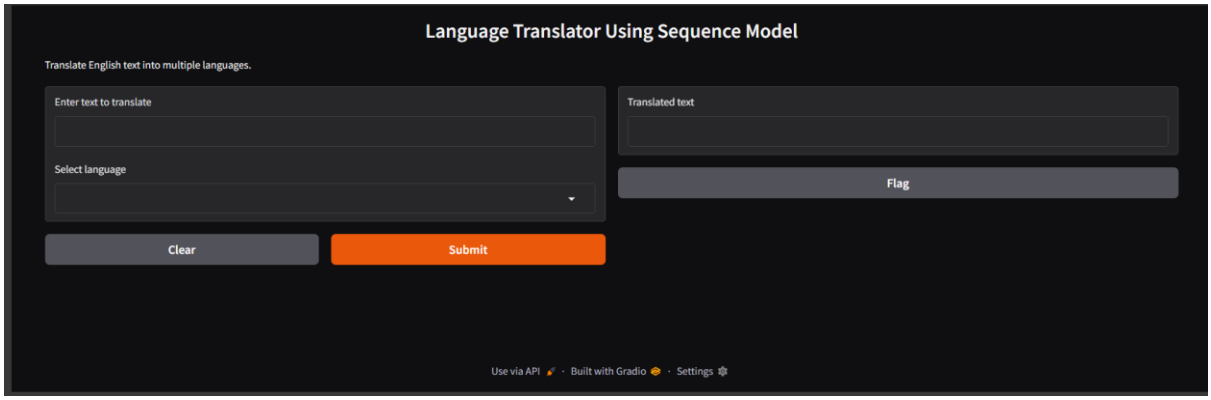
CODE:-

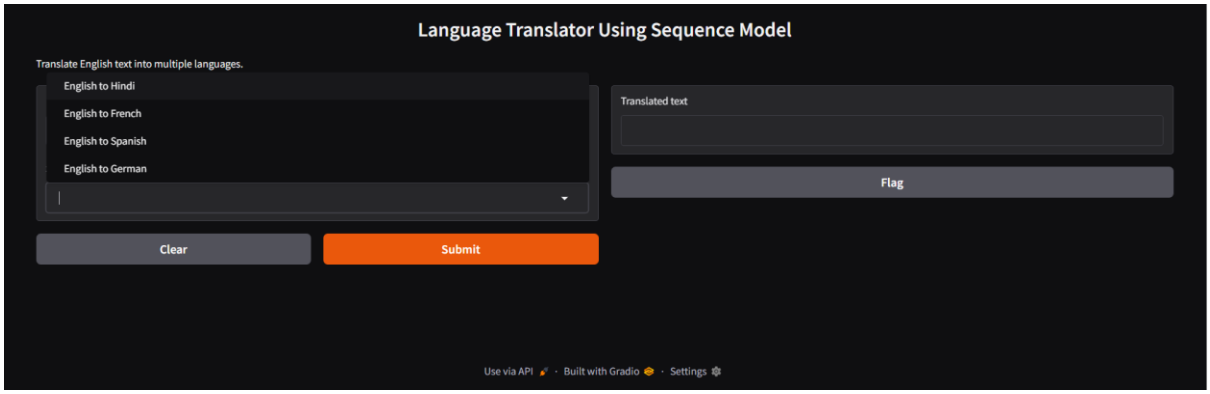
```
!pip install gradio transformers torch


import torch
from transformers import MarianMTModel, MarianTokenizer
import gradio as gr


# Define available language models
language_models = {
    "English to Hindi": "Helsinki-NLP/opus-mt-en-hi",
    "English to French": "Helsinki-NLP/opus-mt-en-fr",
    "English to Spanish": "Helsinki-NLP/opus-mt-en-es",
    "English to German": "Helsinki-NLP/opus-mt-en-de"
}
```

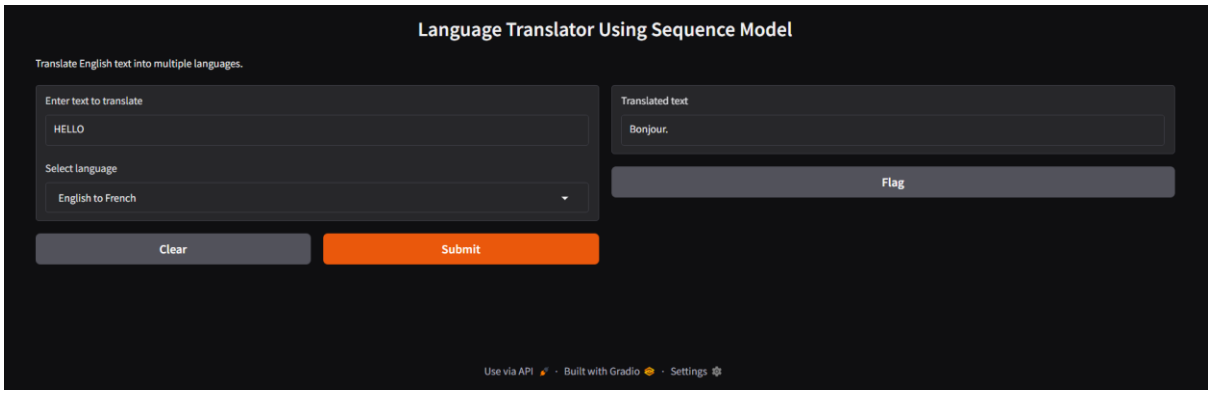
```
# Function for translation
def translate(text, language_choice):
    model_name = language_models[language_choice]
    tokenizer = MarianTokenizer.from_pretrained(model_name)
    model = MarianMTModel.from_pretrained(model_name)

    tokenized_text = tokenizer(text, return_tensors="pt", padding=True)
    translation = model.generate(**tokenized_text)
    translated_text = tokenizer.decode(translation[0], skip_special_tokens=True)

    return translated_text

# Gradio Interface
iface = gr.Interface(
    fn=translate,
    inputs=[
        gr.Textbox(label="Enter text to translate"),
        gr.Dropdown(choices=list(language_models.keys()), label="Select language")
    ],
```

```
    outputs=gr.Textbox(label="Translated text"),
    title="Language Translator Using Sequence Model",
    description="Translate English text into multiple languages."
)

iface.launch()
```

OUTPUT:-


Language Translator Using Sequence Model
Translate English text into multiple languages.
Enter text to translate
Select language
Translated text
Flag
Clear
Submit
Use via API · Built with Gradio · Settings


Language Translator Using Sequence Model
Translate English text into multiple languages.
English to Hindi
English to French
English to Spanish
English to German
Translated text
Flag
Clear
Submit
Use via API · Built with Gradio · Settings


Language Translator Using Sequence Model
Translate English text into multiple languages.
Enter text to translate
HELLO
Select language
English to French
Translated text
Bonjour.
Flag
Clear
Submit
Use via API · Built with Gradio · Settings