API Documentation for Hindi Idioms to English Translation

Overview

The API provides functionality for translating Hindi idioms into English using a fine-tuned MarianMT model. The main endpoint processes the user input, passes it through the translation model, and returns the English translation.

Base URL

The base URL for accessing the translation API is:

```
http://127.0.0.1:8080/
```

Endpoints

1. Translate Text

- **URL**: `/`
- **Method**: `POST`
- **Description**: Accepts Hindi text as input and returns the corresponding English translation.

Request Parameters

The `POST` request should include the following form data:

Parameter	Type	Description	Required
`source_text`	string	The Hindi idiom or sentence to be translated.	Yes

- The `source_text` should be a string containing the Hindi text to be translated. It should be less than 500 characters.

Example Request

```
POST http:// 127.0.0.1:8080/
Content-Type: application/x-www-form-urlencoded

source_text=इस हाँथ दे उस हाँथ ले
```

Response

On success, the server responds with a `200 OK` status and a JSON object containing the translation result.

Field	Type	Description
`translation_result`	string	The translated text in English.

- **Success Response**:
    - Status Code: `200 OK`
    - Body:

```
{
  "translation_result": "Early sow, eary mow."
}
```

- **Error Responses**: If the `source_text` is empty or invalid, the server responds with an error message.
    - **Empty or Invalid Input**:
        - Status Code: `400 Bad Request`
        - Body:

```
{
  "error": "Source text cannot be empty."
}
```

    - **Input Too Long**:
        - Status Code: `400 Bad Request`
        - Body:

```
{
   "error": "Source text exceeds maximum allowed length of 500
characters."
}
```

Error Handling

Status Code	Error Description	Message Example
400	Bad Request - Invalid input	`"error": "Source text cannot be empty."`
400	Bad Request - Input exceeds character limit	`"error": "Source text exceeds maximum allowed length of 500 characters."`
500	Internal Server Error	`"error": "Something went wrong. Please try again later."`

Notes

- The `source_text` should be in Hindi (or any other language supported by the fine-tuned model).
- Ensure that the `source_text` is properly URL encoded in the request body.
- The translation model has a limit of 512 tokens per input. If the input exceeds this limit, it will be truncated.

Example Use Cases

1. **Translating a Hindi Idiom to English**

   Request:

   ```
   POST http://127.0.0.1:8080/
   Content-Type: application/x-www-form-urlencoded

   source_text=अधजल गगरी छलकत जाय,  भरी गगरिया चुपके जाय
   ```

   Response:

   ```
   {
     "translation_result": "Deep rivers move with silent majesty, Shallow brooks are noisy."
   }
   ```

2. **Error: Empty Input**

   Request:

   ```
   POST http:// 127.0.0.1:8080/
   Content-Type: application/x-www-form-urlencoded

   source_text=
   ```

   Response:

   ```
   json
   Copy code
   {
     "error": "Source text cannot be empty."
   }
   ```

This API allows for seamless integration into any application where Hindi-to-English translation is needed. The robust error handling ensures that users are informed of invalid inputs, while the straightforward responses make it easy to consume the translation service.