ITIS 6177 Final Project

Translation API Documentation

Name: Rakesh Hebsur

Student Id: 801210899

Overview

What is Translation API?

Translation API is an open-source API that internally uses <u>Microsoft Azure's Translator Cognitive</u> <u>Service</u>.

This Translator can be used with any operating system to perform language translation.

Translator features

Feature	Description
Text Translation	Translate text between supported source and target languages.
Document Translation	Translate batch and complex files while preserving the structure and format of the original documents.

Language Support

The list below includes abbreviated languages and their full name. The languages must be specified in abbreviated form.

Language	Abbreviation
Afrikaans	af
Amharic	am
Arabic	ar
Assamese	as
Azerbaijani	az
Bashkir	ba
Bulgarian	bg
Bangla	bn
Tibetan	bo
Bosnian	bs
Catalan	ca
Czech	cs

Welsh	су
Danish	da
German	de
Divehi	dv
Greek	el
English	en
Spanish	es
Estonian	et
Persian	fa
Finnish	fi
Filipino	fil
Fijian	fj
French	fr
French (Canada)	fr-CA
Irish	ga
Gujarati	gu
Hebrew	he
Hindi	hi
Croatian	hr
Haitan Creole	ht
Hungarian	hu
Armenian	hy
Indonesian	id
Icelandic	is
Italian	it
Inuktitut	iu
Japanese	ја
Georgian	ka
Kazakh	kk
Khmer	km
Kurdish (Northern)	kmr
Kannada	kn
Korean	ko
Kurdish (Central)	ku
Kyrgyz	ky
Lao	lo
Lithuanian	lt
Latvian	lv
Chinese (Literary)	lzh

Malagasy	mg
Māori	mi
Macedonian	mk
Malayalam	ml
Mongolian (Cyrillic)	mn-Cyrl
Mongolian	
(Traditional)	mn-Mong
Marathi	mr
Malay	ms
Maltese	mt
Hmong Daw	mww
Myanmar (Burmese)	my
Norwegian	nb
Nepali	ne
Dutch	nl
Odia	or
Querétaro Otomi	otq
Punjabi	ра
Polish	pl
Dari	prs
Pashto	ps
Portuguese (Brazil)	pt
Portugese (Portugal)	pt-PT
Romanian	ro
Russian	ru
Slovak	sk
Slovenian	sl
Samoan	sm
Albanian	sq
Serbian (Cyrillic)	sr-Cyrl
Serbian (Latin)	sr-Latn
Swedish	SV
Swahili	SW
Tamil	ta
Telugu	te
Thai	th
Tigrinya	ti
Turkmen	tk
Klingon (Latin)	tlh-Latin

Klingon (plqaD)	tlh-Piqd
Tongan	to
Turkish	tr
Tatar	tt
Tahitian	ty
Uyghur	ug
Ukrainian	uk
Urdu	ur
Uzbek (Latin)	uz
Vietnamese	vi
Yucatec Maya	yua
Cantonese (Traditional)	yue
Chinese Simplified	zh-Hans
Chinese Traditional	zh-Hant

Text Translation API Functions

Translate

The post request API used to translate text from source language to the target language(s).

Endpoint: http://137.184.156.170:3000/translate

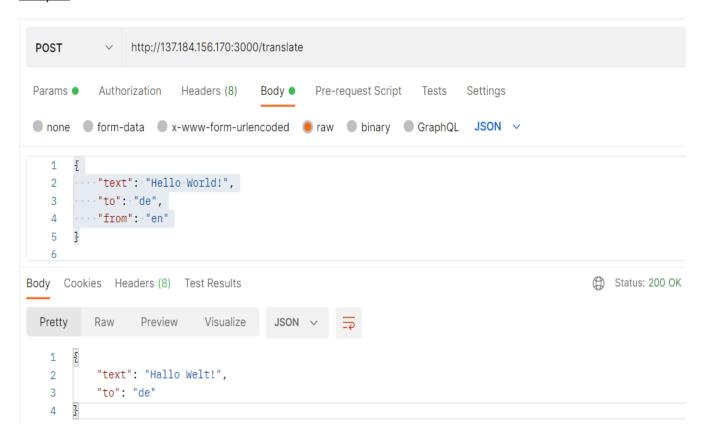
Request Body:

- **from** (Optional): Source language to translate from. If no language is specified, the translator API identifies the language and translates it to the target language.
- **to** (Required): Target language to translate to.
- text (Required): Original text to translate.

Input:

```
Type: json
{
    "text": "Hello World!",
    "to": "de",
    "from": "en"
}

Response:
{
    "text": "Hallo Welt!",
    "to": "de"
}
```



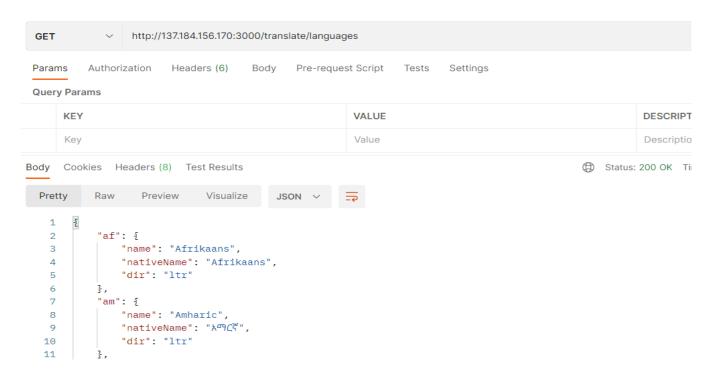
Languages API

Get request API to retrieve all the languages available to translate.

Endpoint: http://137.184.156.170:3000/translate/languages

Response:

```
Type: Json
{
    "af": {
        "name": "Afrikaans",
        "nativeName": "Afrikaans",
        "dir": "ltr"
   },
"am": {
"na
        "name": "Amharic",
        "nativeName": "አማርኛ",
        "dir": "ltr"
    },
"ar": {
        "name": "Arabic",
        "nativeName": "العربية
        "dir": "rtl"
    },
}
```



Detect API

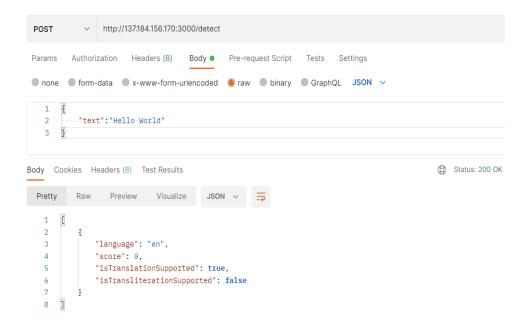
Post request API to identify the source text language. The API returns the language that was detected as well as a score. The score might be between 0 and 1. The closer the score gets to 1.0, the more certain the detection is.

Endpoint: http://137.184.156.170:3000/detect

Request Body:

• text (Required): Original text to be detected.

```
Input:
```



Document Translation API Functions

Document Translation API can be used to translate multiple documents across all supported languages while preserving original document structure and data format.

Supported Document formats

File type	File extension
Adobe PDF	pdf
Comma-Separated Values	csv
HTML	html, htm
Localization Interchange File	xlf. , xliff
Markdown	markdown, mdown, mkdn, md, mkd, mdwn, mdtxt, mdtext, rmd
MHTML	mthml, mht
Microsoft Excel	xls, xlsx
Microsoft Outlook	msg
Microsoft PowerPoint	ppt, pptx
Microsoft Word	doc, docx
OpenDocument Text	odt
OpenDocument Presentation	odp
OpenDocument Spreadsheet	ods
Rich Text Format	rtf
Tab Separated Values/TAB	tsv/tab
Text	txt

Translate Document

The post request used for translating the text in the documents to the target language.

The translated documents are stored in the target location.

Note: Azure blob storage containers are used to store source and target files.

Endpoint: http://137.184.156.170:3000/translatedocument

Request Body:

• **language** (Required): Target language to translate to.

```
Input:
{
    "language": "es"
}

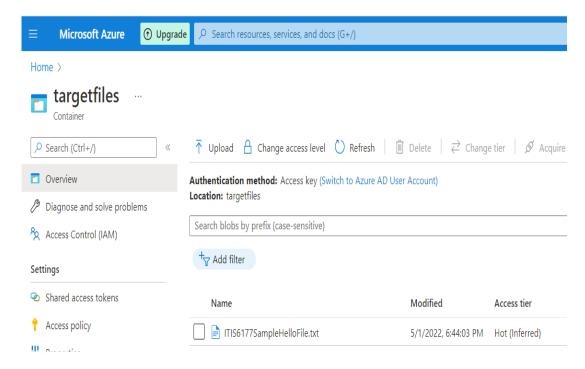
Response:

Type: JSON
{
    "statusText": "Accepted",
    "statusCode": 202
}
```

Output:

```
http://137.184.156.170:3000/translatedocument
 POST
                                                   Pre-request Script
 Params •
            Authorization
                           Headers (8)
                                         Body •
                                                                      Tests
                                                                              Settings
          form-data x-www-form-urlencoded raw
                                                         binary
GraphQL
                                                                                JSON V
    1
           ··"language": · "es"
    2
    3
      Cookies Headers (8) Test Results
                                                                                                    Status: 200 OK
Body
  Pretty
            Raw
                    Preview
                               Visualize
            "statusText": "Accepted",
    2
    3
            "statusCode": 202
```

The file created in the Azure target container after translation is shown below.



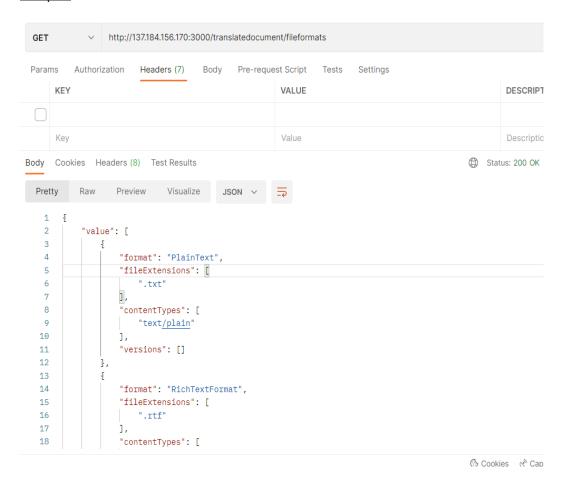
Get File Formats

Get request to list all supported file formats. If successful, this method returns a 200 OK.

Endpoint: http://137.184.156.170:3000/translatedocument/fileformats

Response:

```
{
    "value": [
              "format": "PlainText",
              "fileExtensions": [
                  ".txt"
             ],
"contentTypes": [
"'...+/nlain"
                  "text/plain"
              "versions": []
         },
{
              "format": "RichTextFormat",
              "fileExtensions": [
                  ".rtf"
              "contentTypes": [
                  "application/rtf"
              "versions": []
         },
```



Error codes

- 400035 The source language is not valid. The "to" language entered must be within the list of supported languages.
- 400036 Target language is not valid. The "from" language entered must be within the list of supported languages

Important links

- GitHub code repository
- Readme file with instructions for installation