Language Translation Python Project
EXPOSYS DATA LABS

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INTRODUCTION

Language Translator (TKinter, GoogleTrans)

A translation app is an app which is capable of getting an input in some language, producing the same text converted into some other language of the choices selected by the user. This process of conversion of the same piece of text from one language to a variety of languages is known as Translation. Translation can be achieved by the use of Python programming language and for more readability and ease, we can use graphical user interfaces in Python to do so.
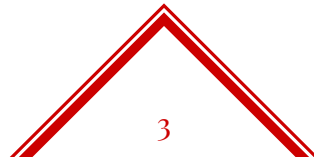
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Existing Methods to translate

In the ancient methods of translation, people use a language translator in person, whose job is to listen to a speaker and convert the speech into a language understandable to everyone. With the advancement in the technologies, Google can perform the same task easily. You can track google translator here (https://translate.google.co.in) . Since, the curious software developers have a high level of curiosity, they found some technologies and methodologies to perform the same task, and they excelled.

AIM OF THE PROJECT

The objective of this Python project is to translate a piece of text into another language. You need to install, translate and import two modules: tkinter, googletrans. Basic knowledge of tkinter is required along with the knowledge of functions in python.
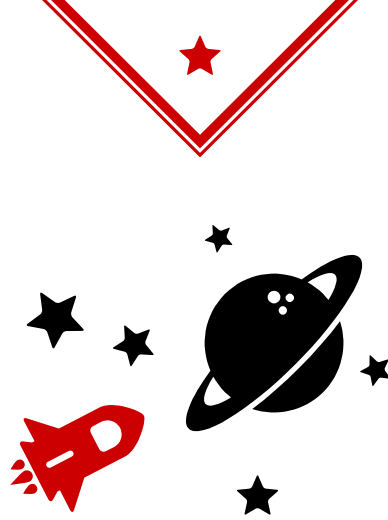
Implementation

Modules used

Tkinter

It is the standard Python interface to the Tcl/Tk GUI toolkit. It enhances user interactivity

GoogleTrans

Googletrans is a free and unlimited python library that implemented Google Translate API. This uses the Google Translate Ajax API to make calls to such methods as detect and translate.

Create display window

Yellow

· **Tk()** initialized tkinter which means window is created

· **Geometry()** set the width and height of the window

· **Resizable(False, False)** means that we can shrink and grow the window

· **Bg** : is used to set the background color

· **Label()** widget use to display one or more than one line of text that users aren't able to modify

Input and output frames

```python
f=Frame(root,bg="black",bd=5)

f.place(x=10,y=118,width=440,height=210)

text1=Text(f, font="Robote 20", bg="white",relief=GROOVE,wrap=WORD)

text1.place(x=0,y=0,width=430,height=200)

scrollbar1.configure(command=text1.yview)

text1.configure(yscrollcommand=scrollbar1.set)
```

```python
f1=Frame(root,bg="black",bd=5)

f1.place(x=620,y=118,width=440,height=210)

text2=Text(f1, font="Robote 20", bg="white",relief=GROOVE,wrap=WORD)

text2.place(x=0,y=0,width=430,height=200)

scrollbar2.configure(command=text2.yview)

text2.configure(yscrollcommand=scrollbar2.set)
```

Input and Output Combobox

We will create an input combobox for taking user input.
We will create an output combobox for providing the output to the user.

Language samples supported by GoogleTrans:

Output Code	Language Name	Script Name
af	Afrikaans	Latin
bn	Bangla	Bangla
bs	Bosnian	Latin
el-Latn	Greek	Latin
en	English	Latin
eo	Esperanto	Latin
pl	Polish	Latin
ps	Pashto	Arabic
pt	Portuguese	Latin

Translation Logic:

This function, translate_now() takes input from first combobox and translate after getting the instructions from user on the button click, and performs the translation.**text** gets the input text entered by the user."1.0″ means that the input should be read from zero characters to line one.

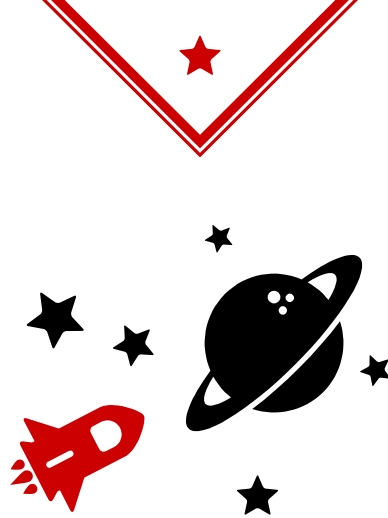## Conclusion

I learned how to translate text, how to create Combobox, buttons widget, and pass the function to the button. In this way, we build a Language Translator.

Thus, the goal of creating the Language Translator App is achieved under the Software Development Internship, offered by Exposys Data Labs.

Thank You!