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ENGLISH TO MARATHI TRANSLATOR USING HYBRID APPROACH

Ms.Swati Raut*, Mr.Z.M. Shaikh

* Computer Science and Engineering, NK Orchid College of Engineering
&Technology,Solapur(Maharashtra), India

ABSTRACT

People of different linguistic background could not able to interact with each other. This concept of translation will help people to communicate comfortably. Also it will help to fill communication gap between two linguistically different back-grounds. It will help to the people in the villages, who have taken education of English. Majority of the Indian population is not familiar with English while most of the information available on web or electronic information is in English. So, to reach out to the common man across various sections and field, an automatic language translator is important. So the main objective of Machine Translation (MT) is to break the language barrier in a multilingual nation like India.MT gives several approaches to translate source language to target language. In this paper we are translating English to Marathi with retaining structure of data.

KEYWORDS: Communication, Language, Lexicon, linguistic, Machine Translation(MT) , Translator.

INTRODUCTION

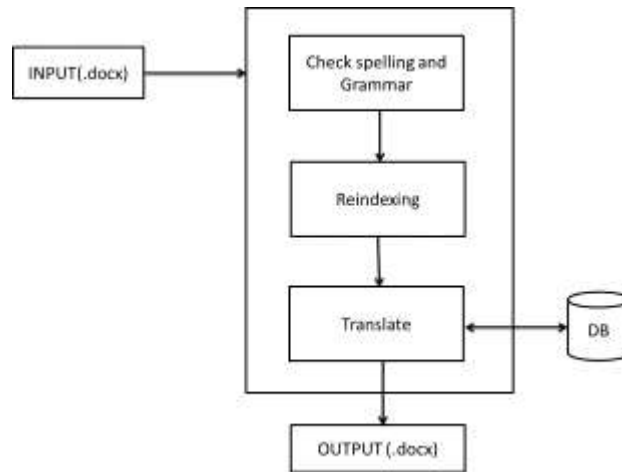
Hindi is a widely spoken language and it is the principal official language of the Republic of India. On the other hand, English is internationally popular language. In India, English as a language has played a major role in administration, legal and education sector since British period. Presently, an awareness has been developed in this country for using regional languages such as Marathi, Kannada etc. for government document writing, for primary and higher education and every other domain of public life. In this context, it has become very important to build system which can translate English to various Indian languages. With the existence of huge text resources in internet and India being one of the most prominent users of web, even commercial companies are finding it necessary to venture out for building machine translation.

MT(Machine Translation) refers to the use of computers to automate some of the tasks or the entire task of translating between human languages. Development of a full-fledged bilingual MT system for any two natural languages with limited electronic resources and tools is a challenging and demanding task. Many attempts are being made all over the world to develop MT systems for various languages using rule-based as well as statistical-based approaches. MT systems can be designed either specifically for two particular languages, called a bilingual system, or for more than a single pair of languages, called a multilingual system. A bilingual system may be either unidirectional, from one Source Language (SL) into one Target Language (TL), or may be bidirectional. Multilingual systems are usually designed to be bidirectional, but most bilingual systems are unidirectional. MT methodologies are commonly categorized as direct, transfer, and Interlingua. The methodologies differ in the depth of analysis of the SL and the extent to which they attempt to reach a language independent representation of meaning or intent between the source and target languages.

PROPOSED SYSTEM

As per our problem statement we are presenting English to Marathi convertor on basis of word. For translating words we created dictionary for retrieving the corresponding Marathi word. First open the document file which we want to translate from location. Then read file document file so here we identify the property of each word in file such as font style, font size etc. Extract the words from document file and search it in database. When it found write it in output file with all properties.

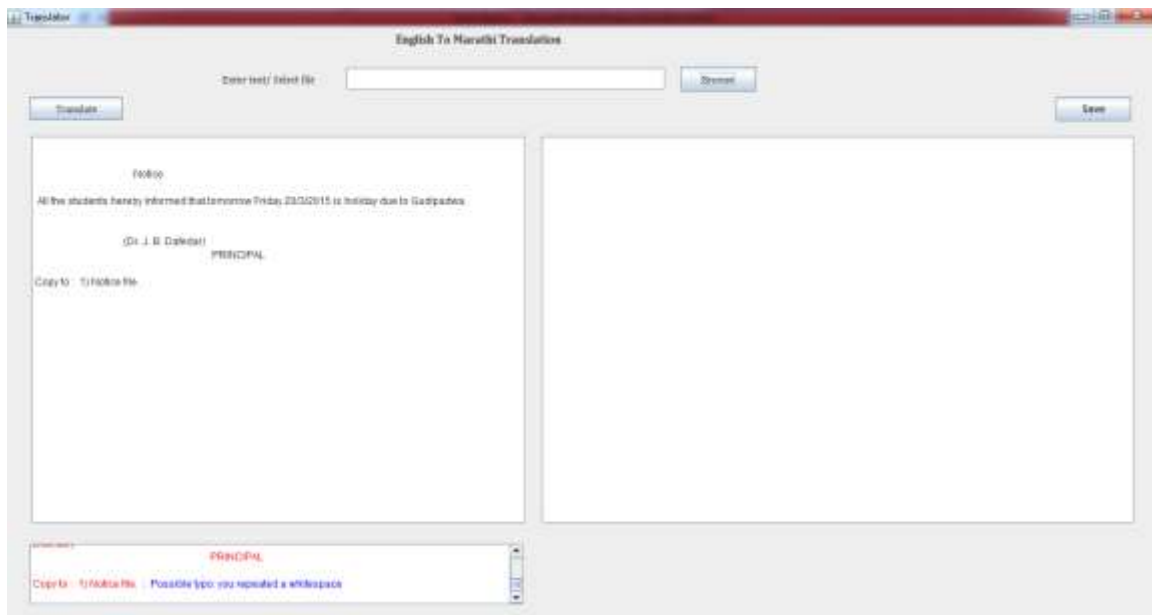
Figure:



System Architecture

Above figure shows system architecture of proposed system. As shown in figure the input file which should be .docx format. First the spelling and grammar checked so there is possibility of increase accuracy of translation. After successfully checking the spelling and grammar it shows mistakes in textArea3, to obtain the sentence structure of text in Marathi language we perform reindexing that is position of subject, object and verb is maintained. Then with the help of database we perform translation.

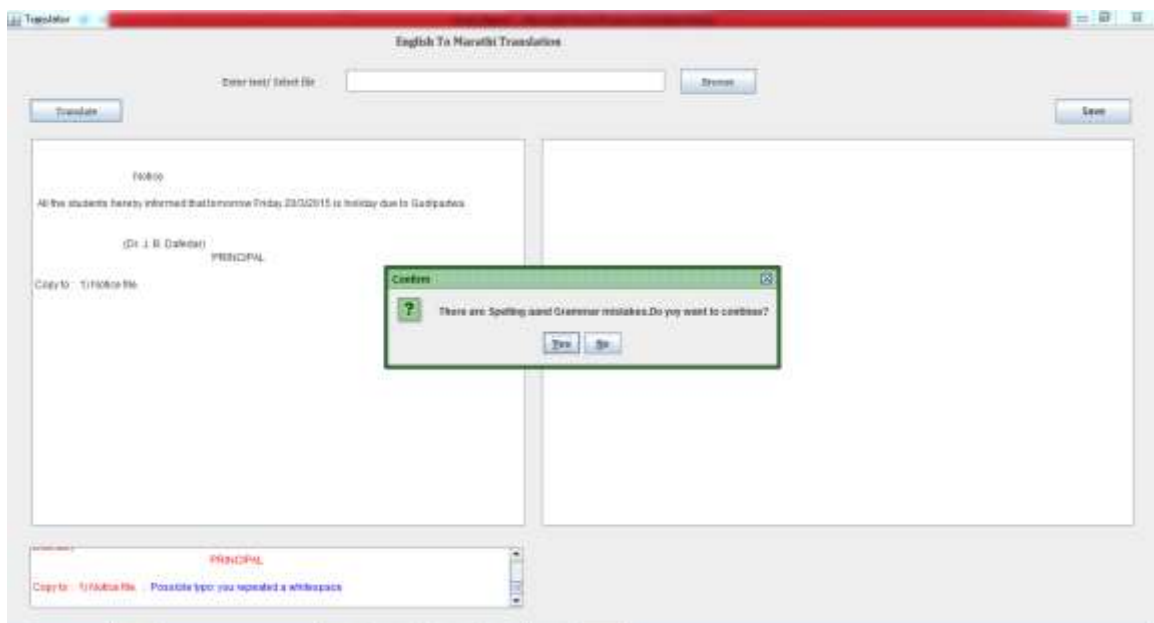
GUI DESIGN



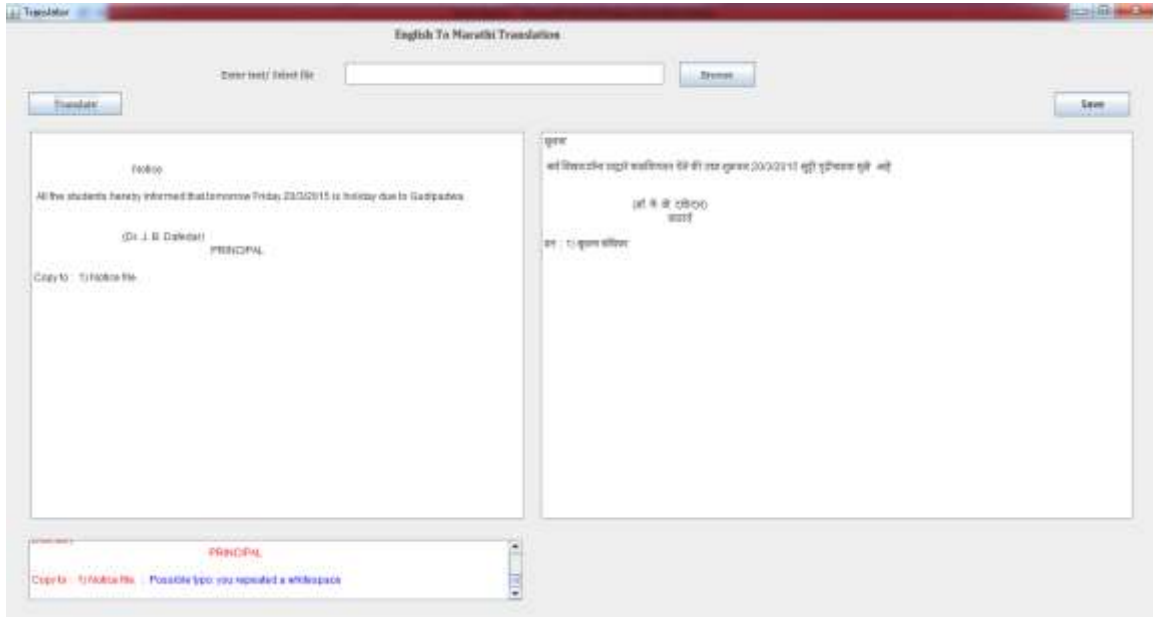
As shown in output screen there is one textbox, three text_Area and three buttons.

- TextBox1- To enter text to be translate .
- TextArea1- It displays browsed file contents that is input file contents are displayed in this text_area.
- TextArea2- It displays output that translated file contents are displayed in this textarea.
- TextArea3- It displays spelling and grammar mistakes of input file.
- Button_Browse- When we click on this button the dialog box is open to open the input file from specified path.
- Button_Translate- When we click on this button it will ask confirmation for translation. If any mistakes are present in file it will ask should we translate or not.
- Button_Save- when click on save button it will open dialog box and select path to save file also choose the format of file.

Above screenshot shows the input file is extracted and the contents in file are shown in textarea1. When we extract the input file that time spelling and grammar of input file is checked so textarea3 shows the mistakes if it has.



This screenshot shows the confirmation message that “There is spelling and grammar mistakes Do you want to continue”.



Above screenshot shows the translated document file Marathi language.



Above screenshot shows output file which saves in .docx format.

CONCLUSION

I conclude that through system we try to increase the accuracy of translation. English to Marathi translation is not possible 100%. With retaining the structure of input file it will more convenient to use translator. Due to grammar checking and spelling checking translator gives near about correct result. So the use of this translator is in office work at college level. It will save time to translate documents.

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