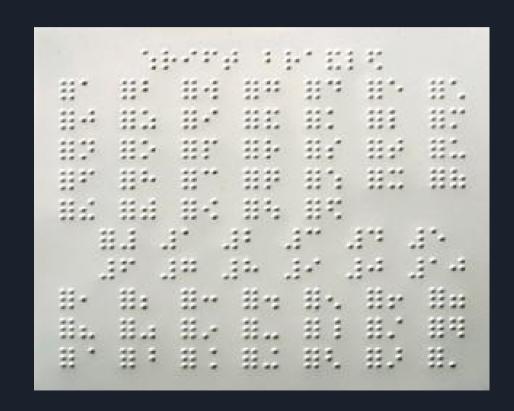# ONLINE BRAILLE-TRANSLATOR

JITHESH M
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What is Braille?

❖ Braille is a system of raised dots that blind people can feel with their fingertips to read and write.

Existing Systems

Present situation

❖ In Braille press, typing Braille text manually is often difficult and time consuming due to the need to type each character as braille dots. Textbooks are usually typed manually using a brailler. However, typing in Braille dots can be error-prone and reading Braille takes a lot of time.

❖ Braille papers are costly.

❖ Braille printer head is costly and needs regular cleaning.

Relevance

Limitations of current systems:

- ❖ Currently good online Braille Translators are not available.
- ❖ Existing Braille Translators are not free and open source.
- ❖ Existing Braille Translators are os depentend.
- ❖ Existing Braille Translators are not support indian languages.

Addressing these limitations would require the development of new online tools that provide the solutions for each and every problems.

Development of SRS

❖ Blind school visiting
❖ Interaction with students
❖ Interaction with teachers
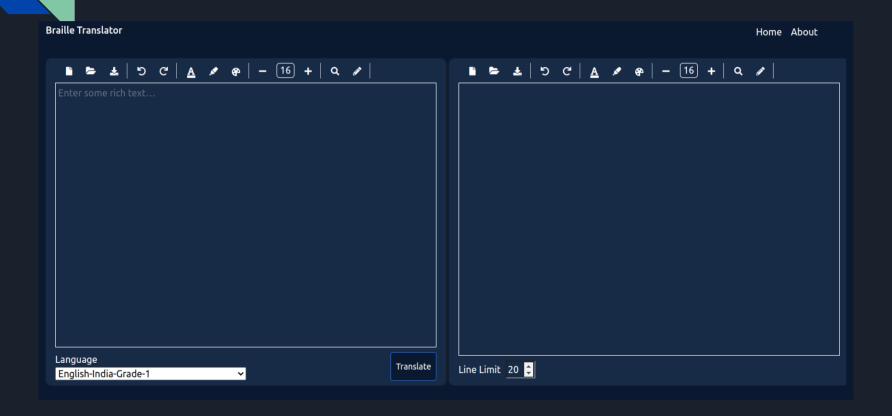❖ Discussion with Sathyan sir and Nalin Sathyan

Project Demonstration

Features

- ❖ It is simply say, text to braille translator
- ❖ It converts any language to braille
- ❖ User can change the font size,color,background color
- ❖ User can create a new file or open a existing file
- ❖ User can download the completed file for future use
- ❖ Translator also provide find, find and replace options
- ❖ User can select the language they want to translate to braille
- ❖ There is a option for choose the line limit of braille text
- ❖ Direct braille letters typing

Implementation Details

❖ This tool is developed in
  JavaScript language using
  Next.js and Express.js, which
  are frameworks commonly used
  in Node.js runtime
  environment.

Why javascript?

Because it has been successfully making web applications interactive for over 27 years, works well in different web browsers, and has an extensive collection of libraries and frameworks for efficient development.

Why Next JS and Express JS?

Next.js can handle the front-end part, creating dynamic and interactive web pages, while Express.js can handle the back-end part, managing server-side logic and handling API requests. Together, they provide a comprehensive solution for building full-stack web applications.

Using Liblouise

❖ Since there is no good javascript bindings for liblouise so we use python liblouise binding.
❖ It is an open source braille translator and back translator named honour of louis braille. New languages can easily be added through tables that support a rule or dictionary based approach.

❖ Visual Studio Code is used as IDE
❖ GIT is used as version controlling system
❖ Source code is hosted in GITHUB

Future Enhancement

❖ Real time braille translation.
❖ By utilizing an OCR engine to extract text from images or documents, and subsequently using that extracted text to translate it into Braille using Braille translator.

THANK YOU