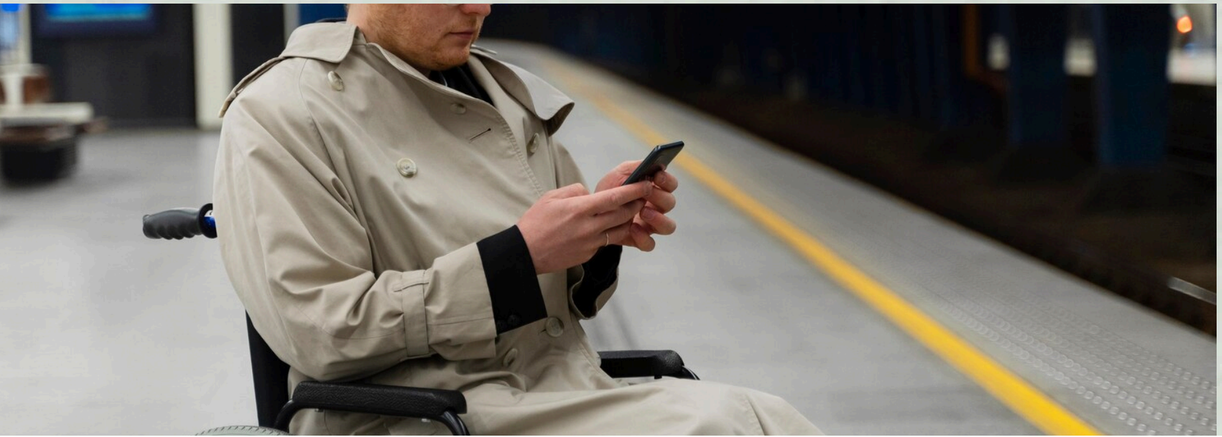
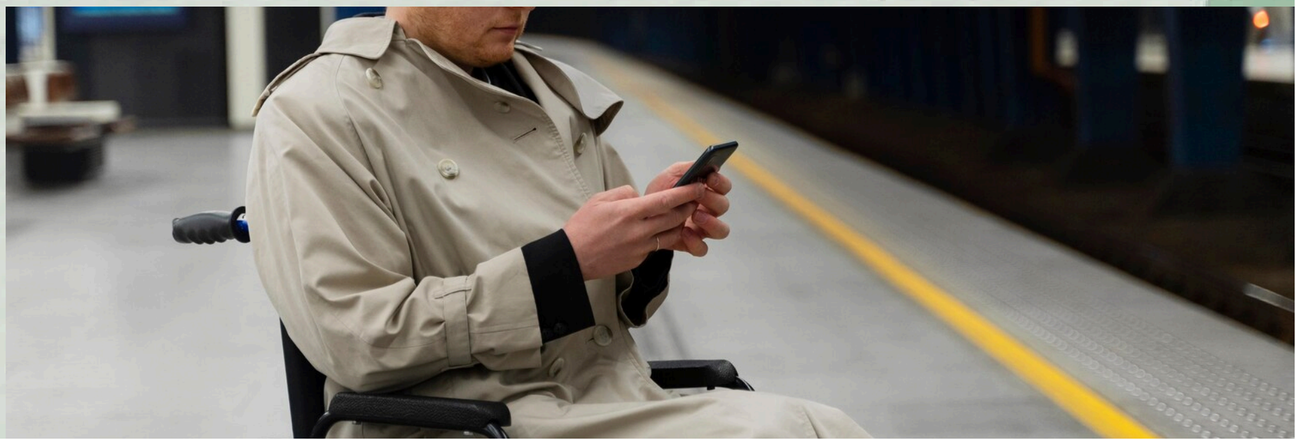
Voice For B

Introduction

The main aim of the project is to recognise the mathematical symbols in an image and convert them to their corresponding voice for the blind students.



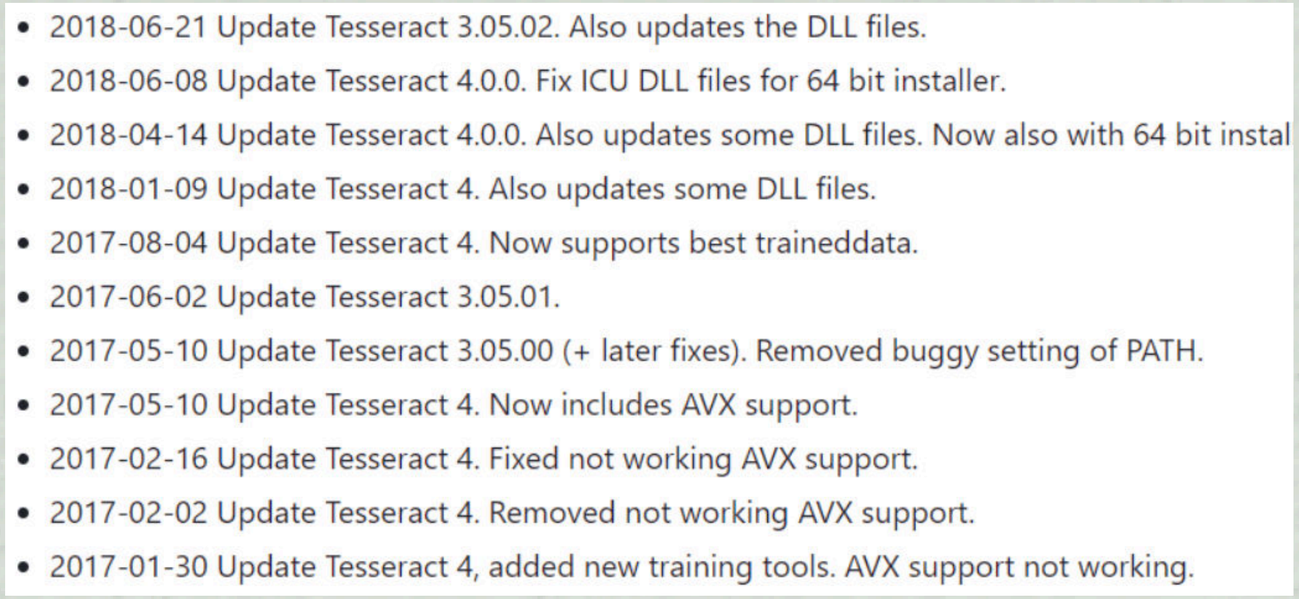


Step 1:-

First we have to select the image

Name of the image :- ocr-input

Input Image:-



- 2018-06-21 Update Tesseract 3.05.02. Also updates the DLL files.
- 2018-06-08 Update Tesseract 4.0.0. Fix ICU DLL files for 64 bit installer.
- 2018-04-14 Update Tesseract 4.0.0. Also updates some DLL files. Now also with 64 bit instal
- 2018-01-09 Update Tesseract 4. Also updates some DLL files.
- 2017-08-04 Update Tesseract 4. Now supports best traineddata.
- 2017-06-02 Update Tesseract 3.05.01.
- 2017-05-10 Update Tesseract 3.05.00 (+ later fixes). Removed buggy setting of PATH.
- 2017-05-10 Update Tesseract 4. Now includes AVX support.
- 2017-02-16 Update Tesseract 4. Fixed not working AVX support.
- 2017-02-02 Update Tesseract 4. Removed not working AVX support.
- 2017-01-30 Update Tesseract 4, added new training tools. AVX support not working.

Step 2:-

Now it takes the image that we have given input in the code inputfile.py

inputfile.py > ...

```
6   pytesseract.pytesseract.tesseract_cmd = r'C:\Program Files\Tesseract-OCR\tesseract.exe'
7
8   def extract_text_from_image(image_path):
9       with Image.open(image_path) as img:
10          extracted_text = pytesseract.image_to_string(img)
11          return extracted_text
12
13  def generate_audio_from_text(text, output_audio_file):
14      engine = pyttsx3.init()
15      engine.setProperty('rate', 150)
16      engine.setProperty('volume', 0.9)
17      engine.save_to_file(text, output_audio_file)
18      engine.runAndWait()
19
20      print("Speech generated successfully!")
21
22  print(extract_text_from_image('ocr-input.png'))
23
24  generate_audio_from_text(extract_text_from_image('input.png'), 'output.mp3')
```

Step 3:-

Now,we will extract the text from the image by using ocr software and running the code in the terminal as :-

```
[Running] python -u "c:\Users\shiva\OneDrive\Documents\SE Lab\inputfile.py"
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Speech generated successfully!

[Done] exited with code=0 in 2.775 seconds
```
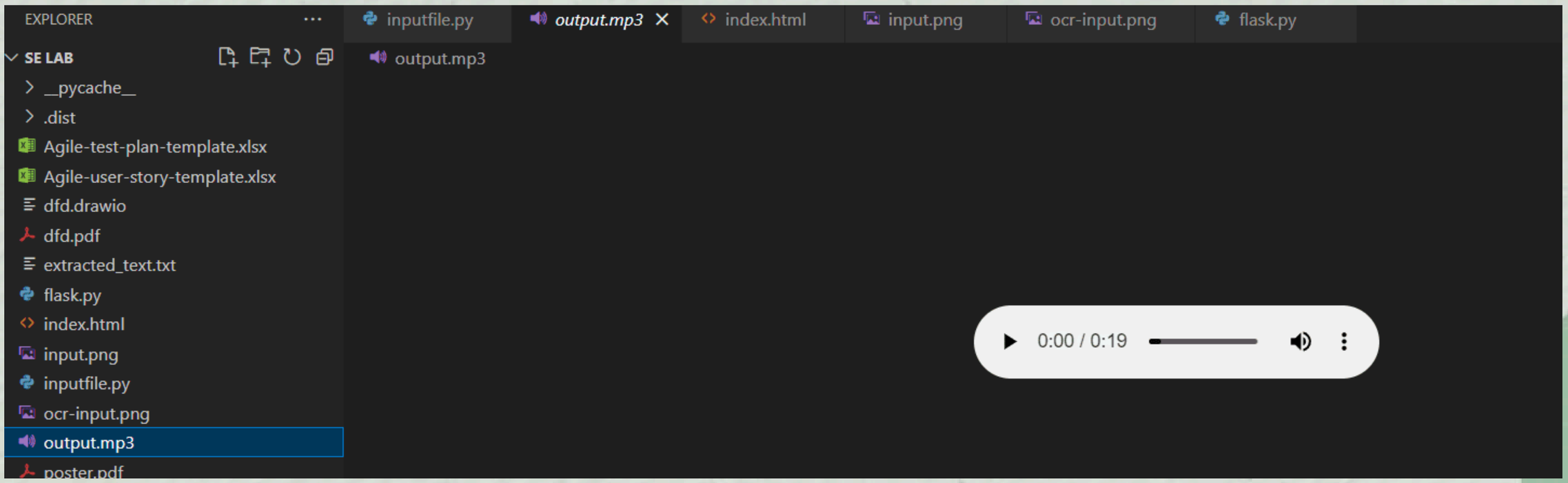
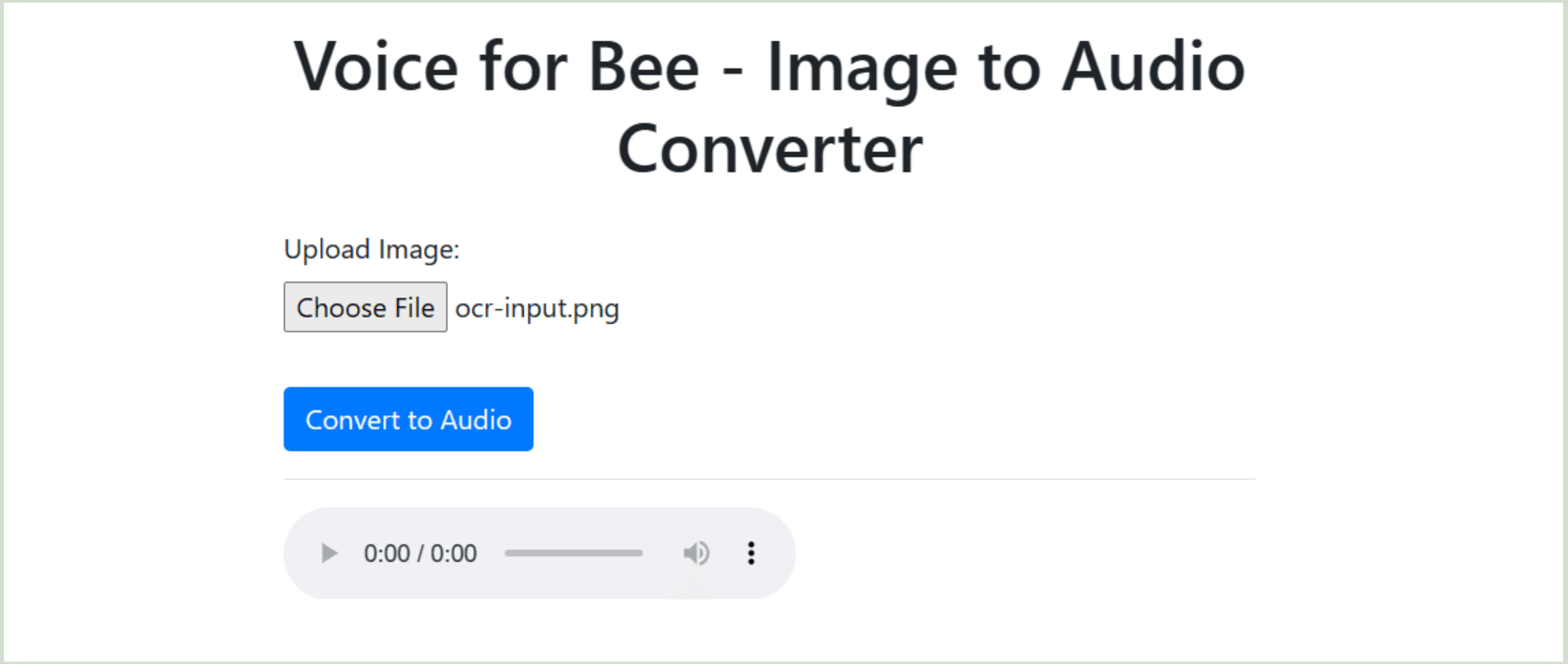

Step 4:-

Now,when we run the code it also gives the voice output of the text as shown:-



This was the page(index.html) That the blind student will access:-



Conclusion

In conclusion, by this way the blind student will access the voice output of an image.

Thanks!

21mcme30,
K.shiva harish