

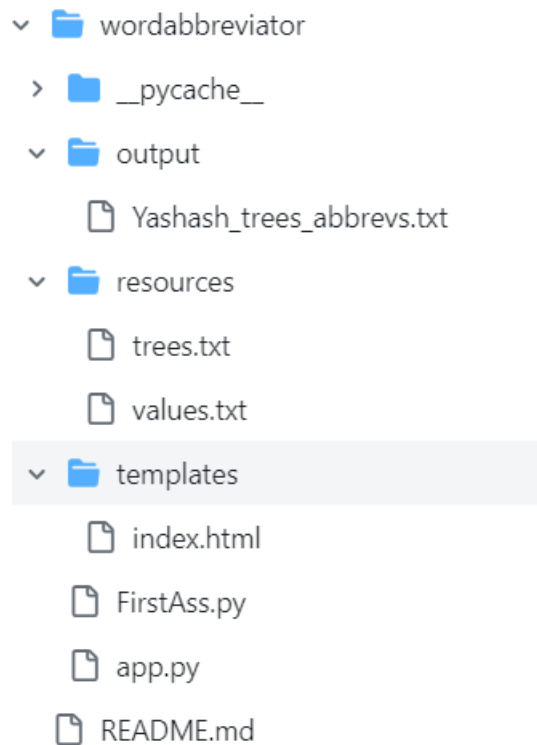
Python Assignment 1

Yashash Thittamaranahalli Venkatesh(2546871)

WORD ABBREVIATOR

github link:- <https://github.com/YashashTV01/Python-Assignment-1-word-abbreviation->

Files inside the git hub

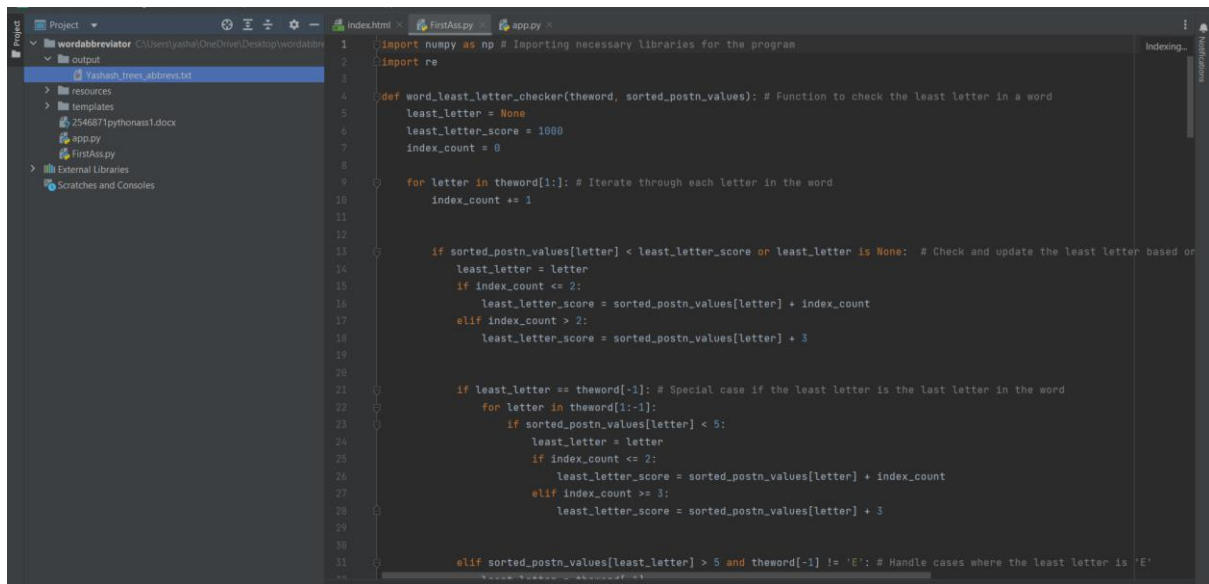


Running the program in 3 different way and I have also connected to front end (html, CSS, javascript using flask)

Output is generating in a folder called output inside the folder

First way :- using Pycharm

FirstAss.py is the file name



```
1 import numpy as np # Importing necessary libraries for the program
2 import re
3
4 def word_least_letter_checker(theword, sorted_postn_values): # Function to check the least letter in a word
5     least_letter = None
6     least_letter_score = 1000
7     index_count = 0
8
9     for letter in theword[1:]: # Iterate through each letter in the word
10         index_count += 1
11
12
13         if sorted_postn_values[letter] < least_letter_score or least_letter is None: # Check and update the least letter based on
14             least_letter = letter
15             if index_count <= 2:
16                 least_letter_score = sorted_postn_values[letter] + index_count
17             elif index_count > 2:
18                 least_letter_score = sorted_postn_values[letter] + 3
19
20
21         if least_letter == theword[-1]: # Special case if the least letter is the last letter in the word
22             for letter in theword[1:-1]:
23                 if sorted_postn_values[letter] < 5:
24                     least_letter = letter
25                     if index_count <= 2:
26                         least_letter_score = sorted_postn_values[letter] + index_count
27                     elif index_count >= 3:
28                         least_letter_score = sorted_postn_values[letter] + 3
29
30
31         elif sorted_postn_values[least_letter] > 5 and theword[-1] != 'E': # Handle cases where the least letter is 'E'
```

Figure 1 FirstAss.py (Python code for word abbreviation)

To run the program (Ctrl+Shift+F10) or just right click and click on run option we will get the terminal to enter the text file name or the directory once we enter the output file is generating with the name **Yashash_tree_abbrevs.txt**

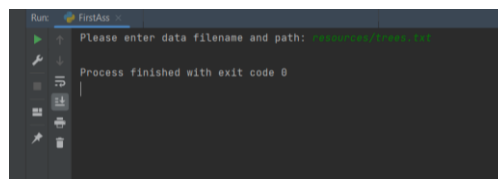


Figure 2 To enter the file name or the path name

Output

It will be generated in the folder named output with the name **Yashash_tree_abbrevs.txt**

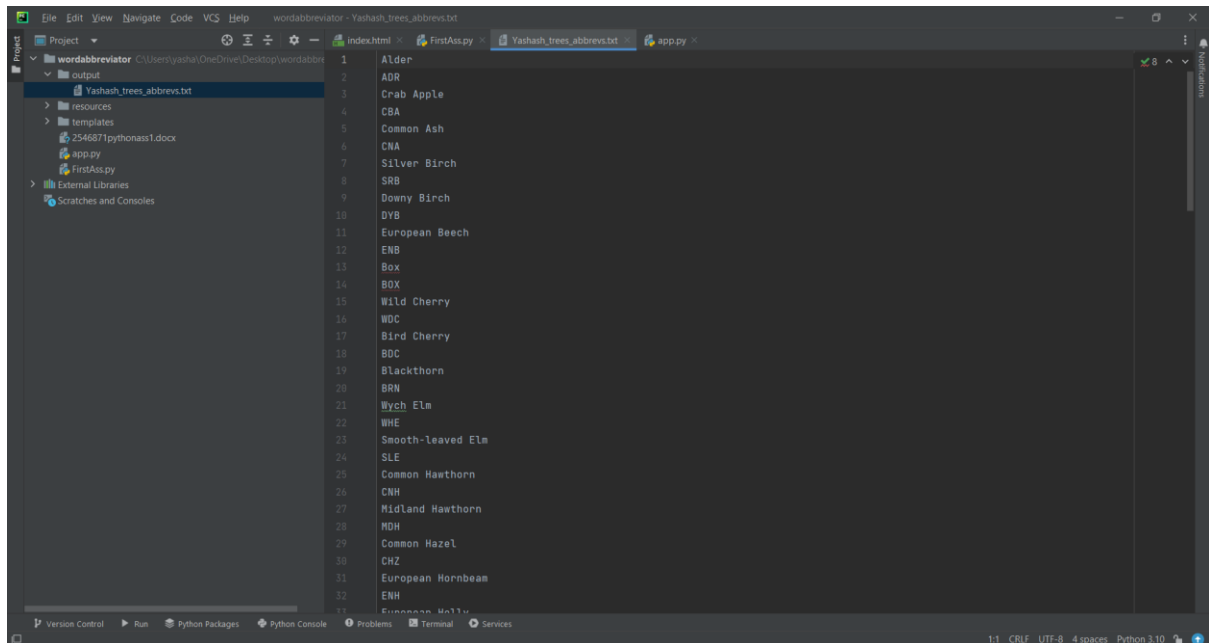


Figure 3 Output of the program FirstAss.py

Second way:- using cmd

Need to go to the directory and need to enter **python FirstAss.py** to run the program

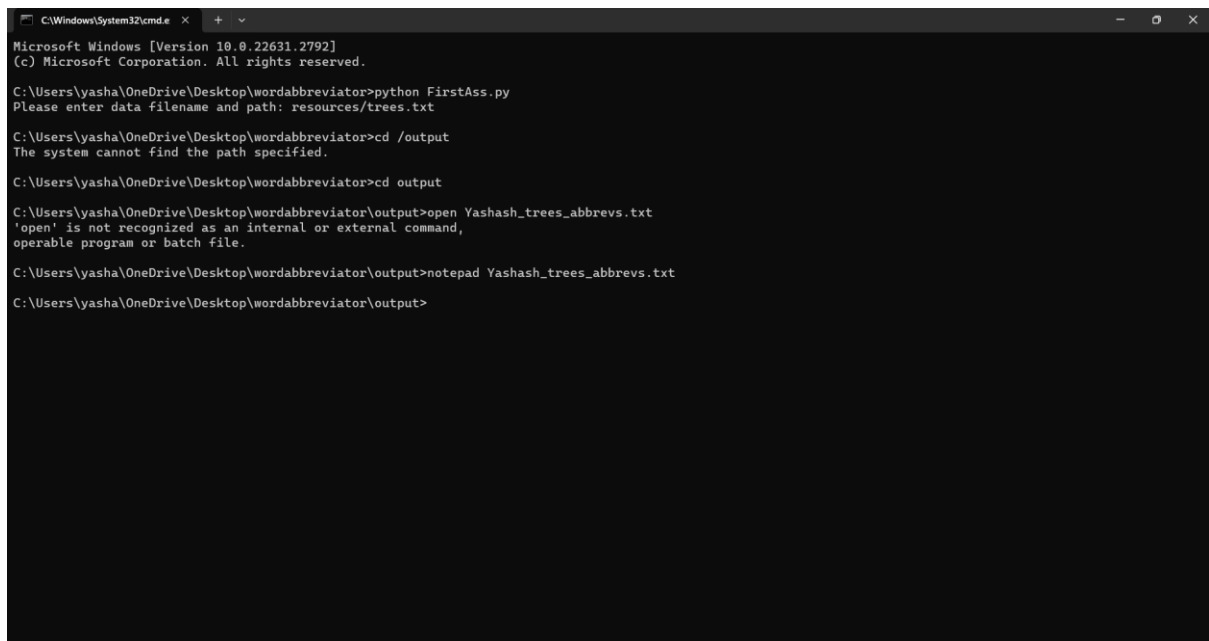


Figure 4 Running FirstAss.py using cmd

Output is generated in output folder and using cmd opened in notepad using the command **notepad Yashash_trees_abbrevs.txt**

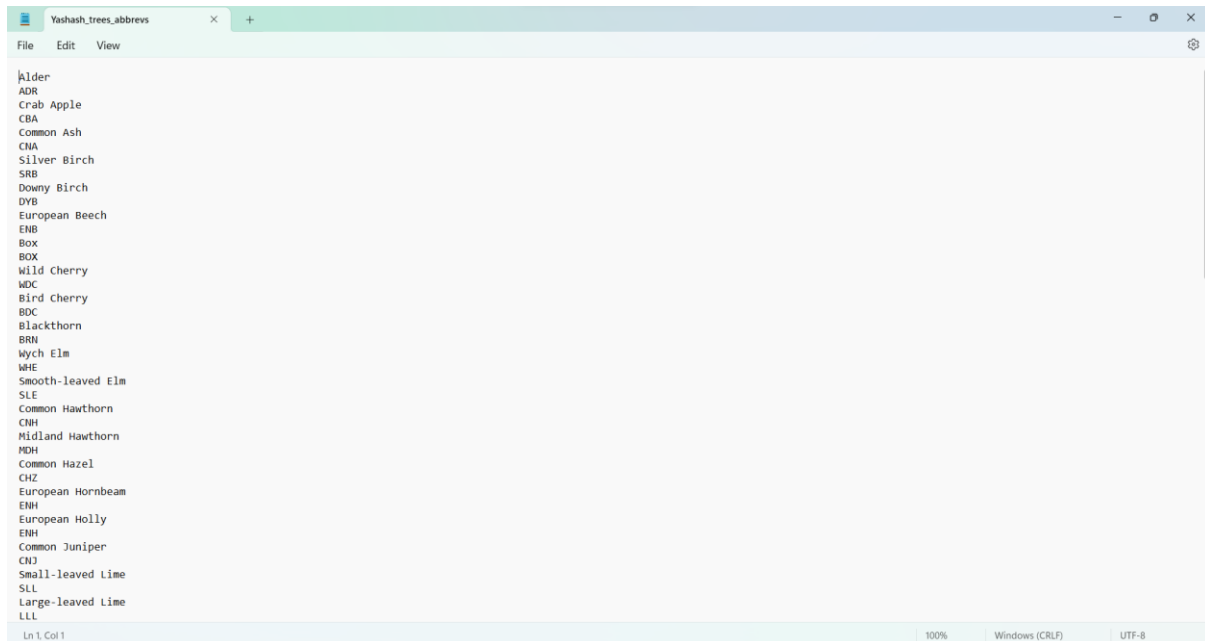


Figure 5 Output of FirstAss.py

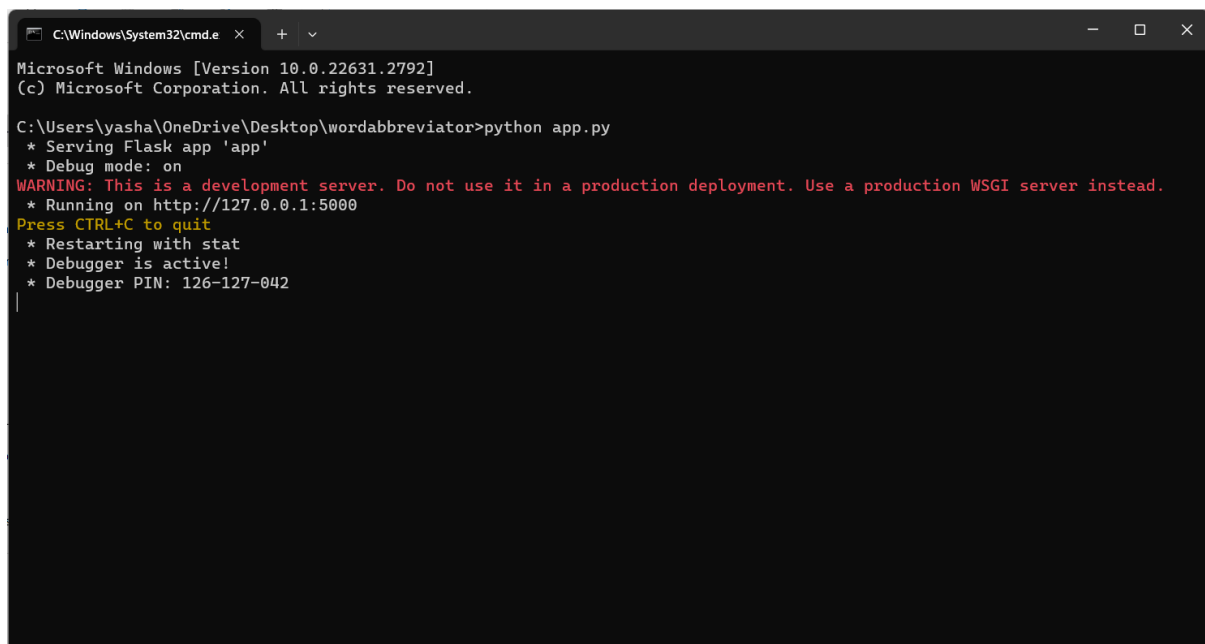
Third Way:- Using Flask and I connected python to front end

Flask is a framework in python which is used to connect python to front end

To run this we need to install flask first steps to install flask through command prompt

Step one :- pip install Flask

Using command prompt to run this



We will get a user Interface for this in a local server which will be Running in <http://127.0.0.1:5000>
if we click on it we will get

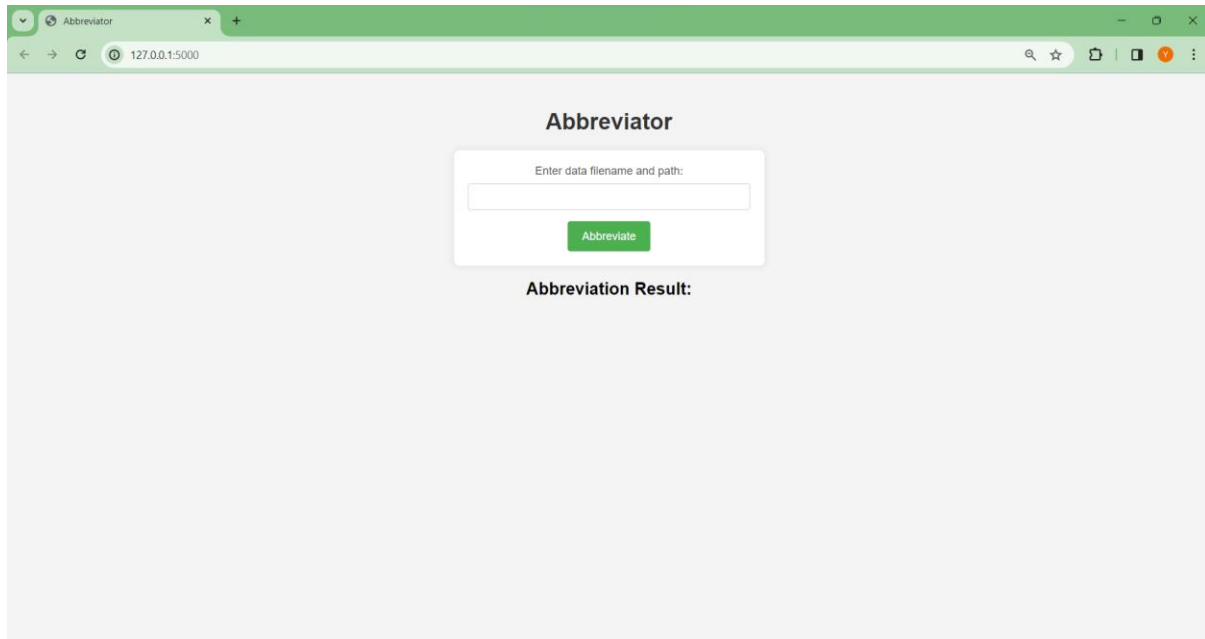


Figure 6 Using Flask

After entering the file name or pathname we will be getting a output figure 7 shows the output and also the text file will be generated in output folder with the name Yashash_trees_abbrevs

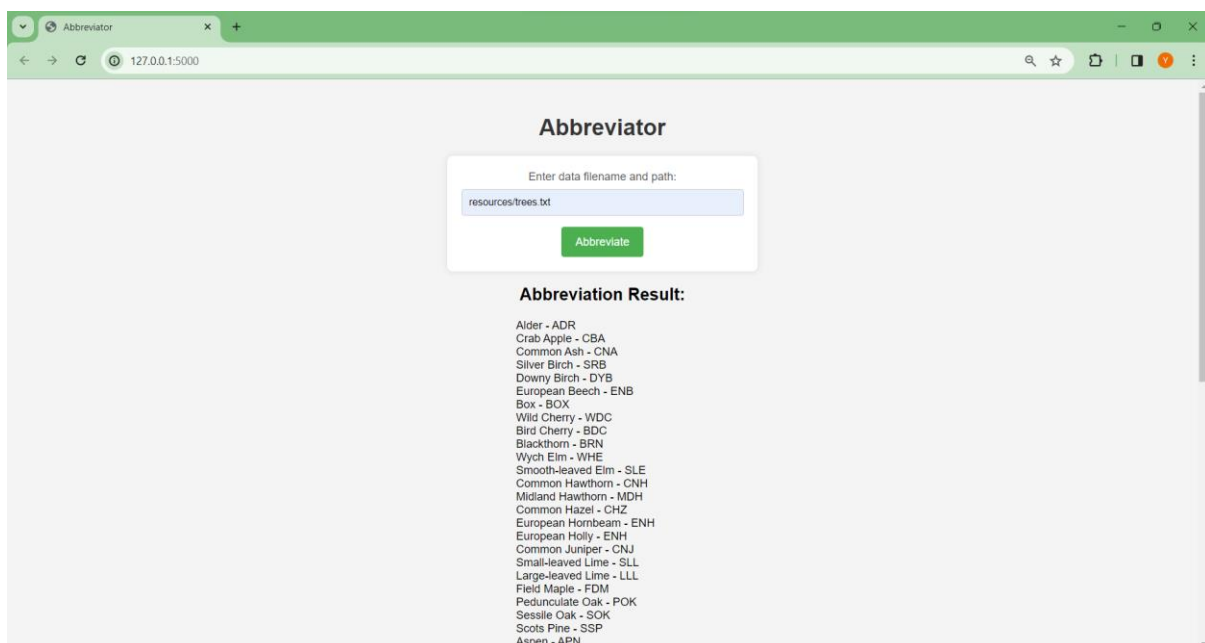


Figure 7 Output using Flask

Future Implementation

- I am planning to develop user interface and make the server Live.
- I will try to add download button which helps to download the abbreviations using front end.