LAB3 CODE:

```
import nltk
from nltk.corpus import stopwords
from nltk.tokenize import word_tokenize
from nltk import PunktSentenceTokenizer
# Download the necessary NLTK resources
#nltk.download('punkt')
#nltk.download('stopwords')

def remove_stopwords_from_file(file_path):
    with open(file_path, 'r', encoding='utf-8') as file:
        text = file.read()

    words = word_tokenize(text)

    stop_words = set(stopwords.words('english'))

    filtered_words = [word for word in words if word.lower() not in stop_words]

    filtered_text = ' '.join(filtered_words)

    return filtered_text

file_path = 'stop_word.txt'

# Preprocess the text file by removing stop words
processed_text = remove_stopwords_from_file(file_path)

# Display the processed text
print("Text after stop word removal:")
print(processed_text)
```

output:

```
PS C:\Users\saura\Desktop\4th year study material\Lab Program\IR LAB> &
C:/Users/saura/AppData/Local/Programs/Python/Python311/python.exe
"c:/Users/saura/Desktop/4th year study material/Lab Program/IR
LAB/stop_word_removal.py"
Text before stop word removal:
Natural Language Processing is a field of Artificial Intelligence that enables
machines to understand, interpret, and generate human language. It is the driving
force behind many applications, such as text classification, sentiment analysis, and
machine translation.
Text after stop word removal:
Natural Language Processing field Artificial Intelligence enables machines
understand , interpret , generate human language . driving force behind many
applications , text classification , sentiment analysis , machine translation .
```