SUPERIOR UNIVERSITY

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Roll no:

068

Class:

BSAI

Section:

4B

Subject:

Programming for Artificial Intelligence

Submitted to:

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TASK 9

Natural Language Processing

Sentiment Analysis using Vader

Objective:

The purpose of this mini-project is to perform **sentiment analysis** on user-provided sentences using the **VADER sentiment analyzer**. The system classifies each input sentence as **Positive**, **Negative**, or **Neutral** based on sentiment scores.

Tools Used:

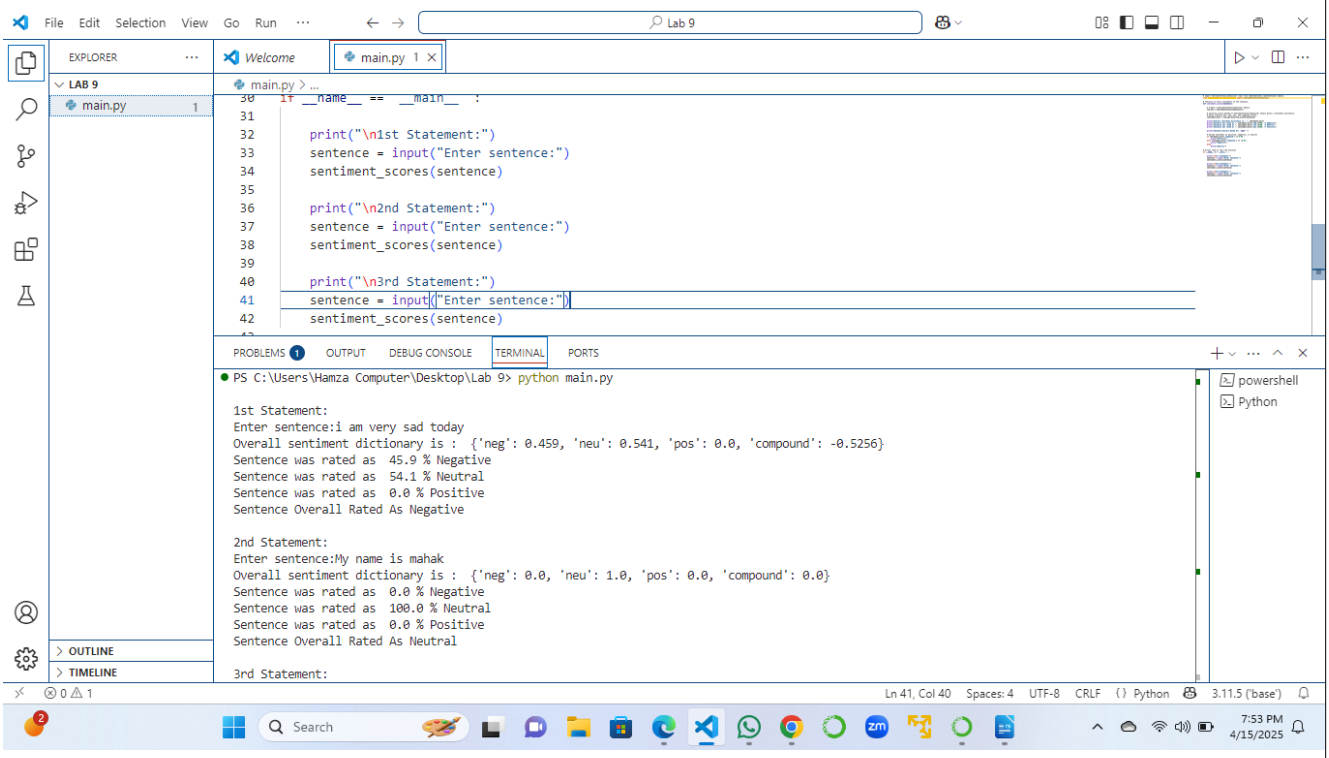
- **Python 3.x**
- **VADER SentimentIntensityAnalyzer** module (from `vaderSentiment`)
- **Visual Studio Code** (IDE)

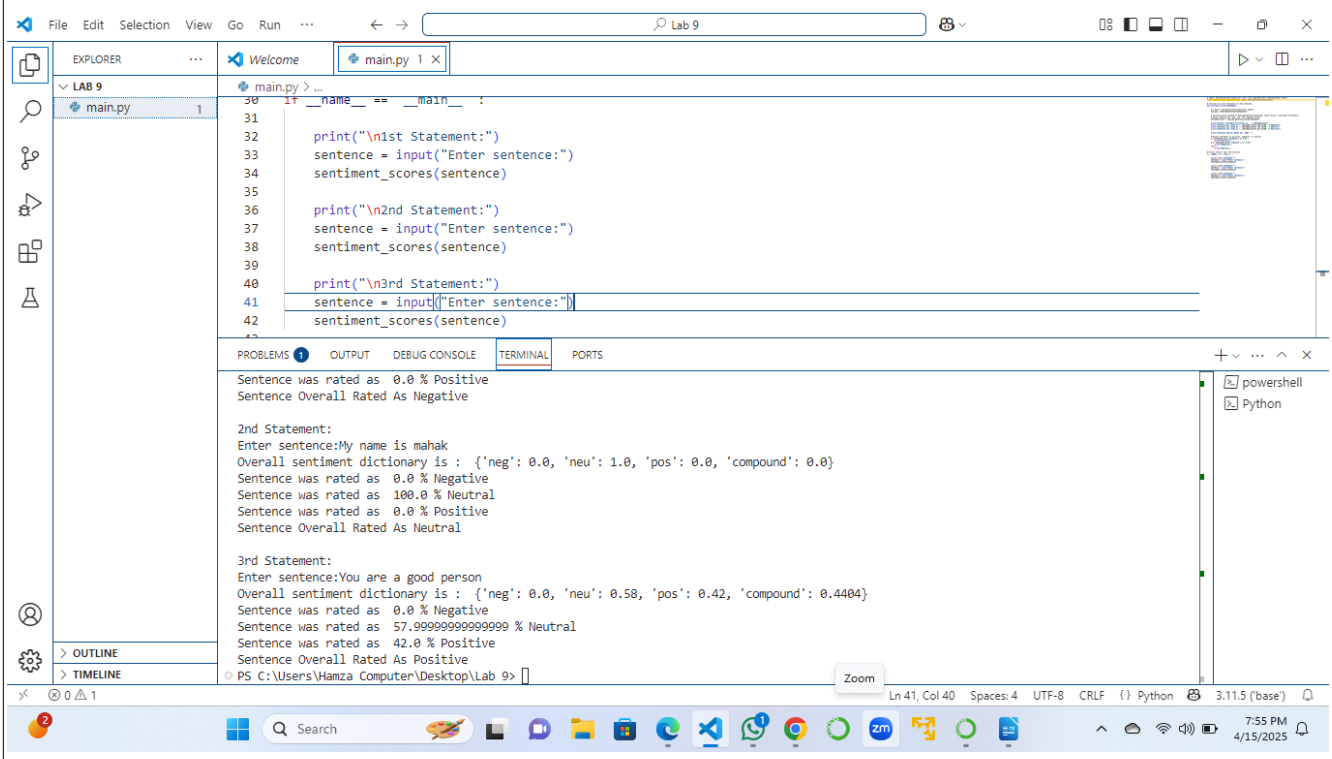
Code:

```
# import SentimentIntensityAnalyzer class from vaderSentiment.vaderSentiment module.
from vaderSentiment.vaderSentiment import SentimentIntensityAnalyzer

# Function to print sentiments of the sentence.
def sentiment_scores(sentence):

    # Create a SentimentIntensityAnalyzer object.
    sid_obj = SentimentIntensityAnalyzer()

    # polarity_scores method of SentimentIntensityAnalyzer object gives a sentiment dictionary.
    # which contains pos, neg, neu, and compound scores.
    sentiment_dict = sid_obj.polarity_scores(sentence)

    print("Overall sentiment dictionary is : ", sentiment_dict)
    print("Sentence was rated as ", sentiment_dict['neg']*100, "% Negative")
    print("Sentence was rated as ", sentiment_dict['neu']*100, "% Neutral")
    print("Sentence was rated as ", sentiment_dict['pos']*100, "% Positive")

    print("Sentence Overall Rated As", end=" ")

    # Decide sentiment as positive, negative, or neutral
```

```
    if sentiment_dict['compound'] >= 0.05 :
        print("Positive")
    elif sentiment_dict['compound'] <= -0.05 :
        print("Negative")
    else :
        print("Neutral")

# Driver code to test the function
if __name__ == "__main__" :

    print("\n1st Statement:")
    sentence = input("Enter sentence:")
    sentiment_scores(sentence)

    print("\n2nd Statement:")
    sentence = input("Enter sentence:")
    sentiment_scores(sentence)

    print("\n3rd Statement:")
    sentence = input("Enter sentence:")
    sentiment_scores(sentence)
```

Output:




File Edit Selection View Go Run
Lab 9
EXPLORER
LAB 9
main.py
Welcome
main.py 1
if __name__ == "__main__":
print("\n1st Statement:")
sentence = input("Enter sentence:")
sentiment_scores(sentence)
print("\n2nd Statement:")
sentence = input("Enter sentence:")
sentiment_scores(sentence)
print("\n3rd Statement:")
sentence = input("Enter sentence:")
sentiment_scores(sentence)
PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL PORTS
Sentence was rated as 0.0 % Positive
Sentence Overall Rated As Negative
2nd Statement:
Enter sentence:My name is mahak
Overall sentiment dictionary is : {'neg': 0.0, 'neu': 1.0, 'pos': 0.0, 'compound': 0.0}
Sentence was rated as 0.0 % Negative
Sentence was rated as 100.0 % Neutral
Sentence was rated as 0.0 % Positive
Sentence Overall Rated As Neutral
3rd Statement:
Enter sentence:You are a good person
Overall sentiment dictionary is : {'neg': 0.0, 'neu': 0.58, 'pos': 0.42, 'compound': 0.4404}
Sentence was rated as 0.0 % Negative
Sentence was rated as 57.99999999999999 % Neutral
Sentence was rated as 42.0 % Positive
Sentence Overall Rated As Positive
PS C:\Users\Hamza Computer\Desktop\Lab 9>
powershell
Python
OUTLINE
TIMELINE
Zoom
Ln 41, Col 40 Spaces: 4 UTF-8 CRLF Python 3.11.5 ('base')
Search
7:55 PM
4/15/2025
