1.NATURAL LANGUAGE PROCESSING (NLP)

Natural Language Processing (NLP) is a field of AI focused on enabling

computers to understand, interpret, and generate human language. This

task involves working on a specific NLP problem, such as sentiment

analysis or text classification.

Ans.

# Import necessary libraries

import nltk

from nltk.sentiment import SentimentIntensityAnalyzer

# Download necessary resources from NLTK

nltk.download('vader\_lexicon')

# Initialize the sentiment analyzer

sia = SentimentIntensityAnalyzer()

# Define a list of sample texts for sentiment analysis

texts = [

"I absolutely love this product! It's amazing.",

"This is the worst experience I've ever had.",

"The service was okay, not great but not terrible either.",

"I'm feeling so excited about the opportunity!",

"I regret buying this, it's a waste of money."

]

# Analyze the sentiment of each text

for text in texts:

sentiment = sia.polarity\_scores(text)

print(f"Text: {text}")

print(f"Sentiment Scores: {sentiment}")

if sentiment['compound'] >= 0.05:

print("Overall Sentiment: Positive\n")

elif sentiment['compound'] <= -0.05:

print("Overall Sentiment: Negative\n")

else:

print("Overall Sentiment: Neutral\n")