A detailed step-by-step guide on how to perform sentiment analysis, named entity recognition (NER), keyword detection, emotional tone analysis, and generating embeddings.

**1.Import the Necessary Libraries**

import pandas as pd

import numpy as np

from sklearn.feature\_extraction.text import CountVectorizer

from nltk.tokenize import word\_tokenize

from nltk.corpus import stopwords

import spacy

from transformers import pipeline, AutoTokenizer, AutoModelForSequenceClassification

from textblob import TextBlob

from sentence\_transformers import SentenceTransformer

**3. Load Dataset**

df = pd.read\_csv('dataset.csv')

**4. Sentiment Analysis**

Use the `transformers` library for state-of-the-art sentiment analysis.

**5. Named Entity Recognition (NER)**

**6. Keyword Detection**

Use “CountVectorizer” from `scikit-learn`.

**7. Emotional Tone Analysis**

Use: textblob

**8. Embeddings**

Use `sentence-transformers` to generate text embeddings.

**Summary of Libraries Used**

1. Pandas: For data manipulation and analysis.

2. Numpy: For numerical operations.

3. scikit-learn: For keyword detection.

4. nltk: For natural language processing tasks such as tokenization.

5. spaCy: For named entity recognition.

6. transformers: For sentiment analysis.

7. textblob: For emotional tone analysis.

8. sentence-transformers: For generating embeddings.