Generative AI

Project- Unit 1

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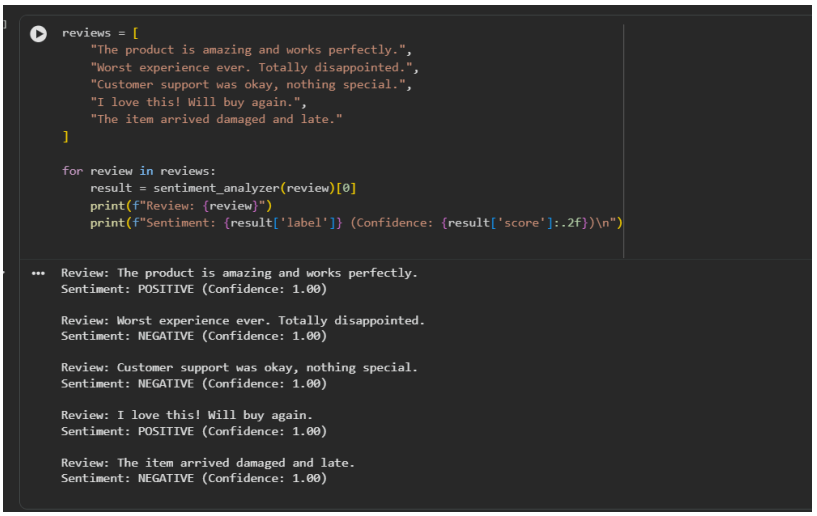
Abstract

This project focuses on building a simple Customer Feedback Analyzer using Generative AI techniques. The goal of the project is to automatically identify whether a customer review is positive or negative. Instead of manually reading many reviews, this system uses a pre-trained language model to understand the sentiment behind the text. The project demonstrates how modern NLP models can be used to save time and improve decision-making in real-world applications.

Documentation

In this project, a Customer Feedback Analyzer was developed using a pre-trained sentiment analysis model from the Hugging Face transformers library. The system analyzes customer reviews and classifies them as Positive or Negative without requiring any additional training. The project demonstrates how Natural Language Processing models can automatically understand human language and extract sentiment from text.

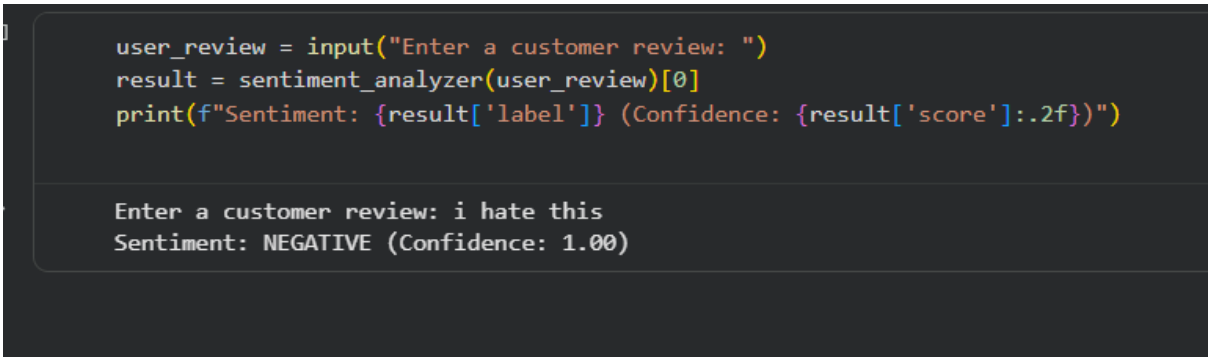
Output



```
reviews = [
    "The product is amazing and works perfectly.",
    "Worst experience ever. Totally disappointed.",
    "Customer support was okay, nothing special.",
    "I love this! Will buy again.",
    "The item arrived damaged and late."
]

for review in reviews:
    result = sentiment_analyzer(review)[0]
    print(f"Review: {review}")
    print(f"Sentiment: {result['label']} (Confidence: {result['score']:.2f})\n")
```

```
Review: The product is amazing and works perfectly.
Sentiment: POSITIVE (Confidence: 1.00)

Review: Worst experience ever. Totally disappointed.
Sentiment: NEGATIVE (Confidence: 1.00)

Review: Customer support was okay, nothing special.
Sentiment: NEGATIVE (Confidence: 1.00)

Review: I love this! Will buy again.
Sentiment: POSITIVE (Confidence: 1.00)

Review: The item arrived damaged and late.
Sentiment: NEGATIVE (Confidence: 1.00)
```

This indicates the sentiment classification, with a confidence score. The input is pre-defined, and the model analyzes the statement, and classifies it as Positive or Negative.



This output indicates the same task as earlier, sentiment classification, but the input is user-defined. It accepts a customer review as input, and classifies it as Positive or Negative, along with a confidence score.