



Amazon Product Reviews

Sentiment Analysis

- Artificial Intelligence Program
 - Dr :Gawaher Soliman.
 - Eng :Waled Add Allah.

- Ahmed Shawaly.
- Ahmed Abdo.
- Eman Yousef.
- Sara Ahmed.
- Fatma Ahmed.
- Mohamed Amin.

Abstract

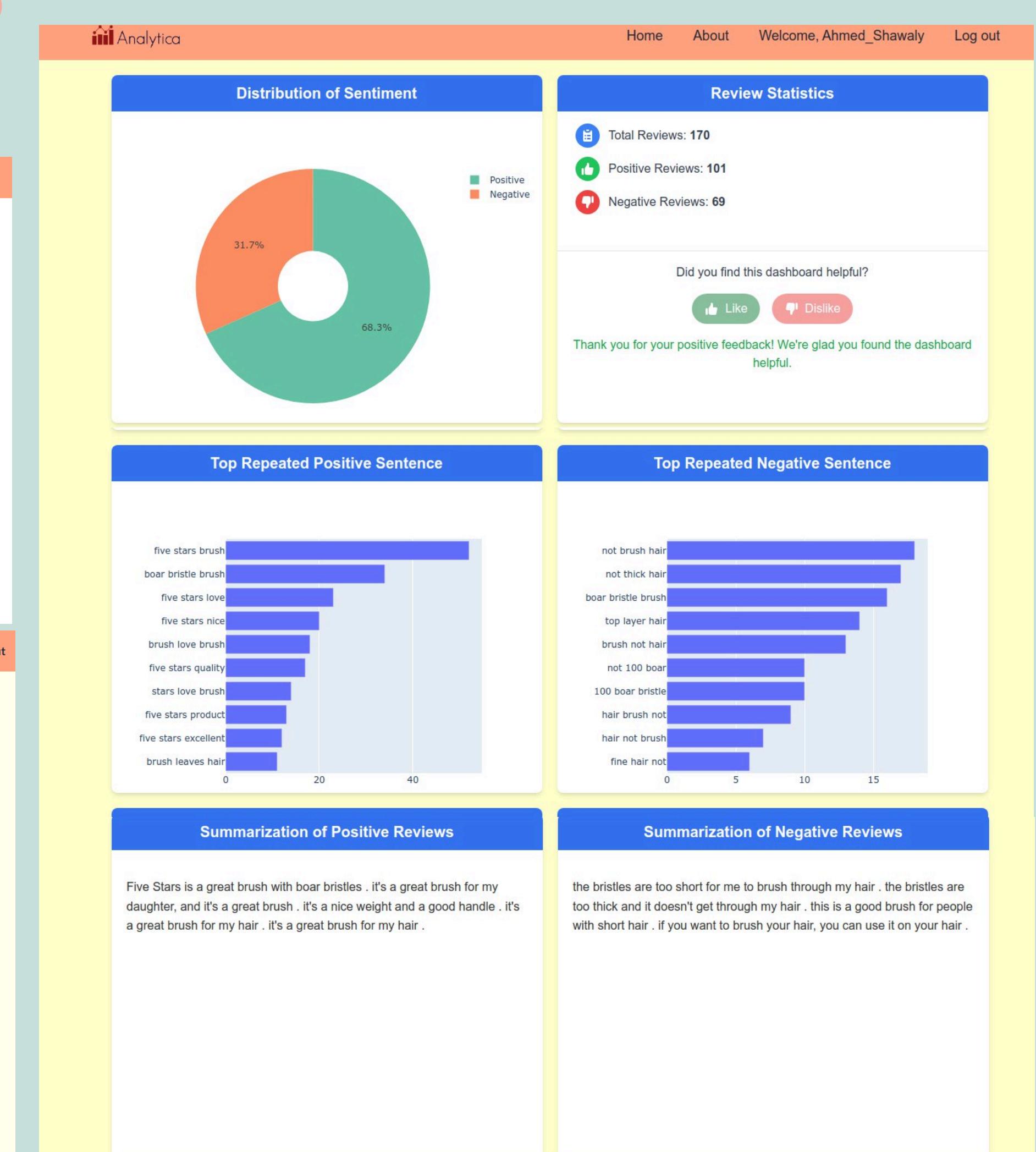
- This project develops an automated system to analyze and summarize Amazon product reviews using NLP and deep learning techniques. It helps consumers quickly understand the overall sentiment and key points of reviews, aiding in informed purchase decisions.

Implementation

The goal is to provide users with insights into product reviews by determining whether they express positive, negative, or neutral sentiment, summarizing the most important reviews.

Here are the features we're proud of:

- Web Scraping
- Sentiment Analysis
- Text Summarization
- Data Visualization



Problem Statement

- Consumers face the challenge of manually sifting through thousands of Amazon reviews to gauge overall sentiment, making it time-consuming and impractical, thus necessitating an automated system for clear and concise sentiment analysis for the reviews.

Tools



Target

- Create a user-friendly web application that:
- Classifies reviews as positive or negative using NLP and deep learning models like LSTM and BERT.
- Summarizes key points from positive and negative reviews separately using T5 small and BERT, evaluated by ROUGE scores.

Conclusion

- This project offers an innovative solution to the challenge of understanding customer sentiment from a large volume of Amazon reviews. By leveraging NLP and deep learning techniques, the system provides accurate and concise sentiment analysis and review summarization. This not only saves time for consumers but also enhances their decision-making process. Future work will focus on improving model accuracy and expanding functionality to other e-commerce platforms.