

## **Abstract**

The Online Product Reviews Sentiment Analysis with Django project aims to assist consumers in making informed purchasing decisions by leveraging natural language processing (NLP) and web technology to analyze product reviews. Integrating the Django framework with the Python programming language, this initiative focuses on creating a user-friendly web application that performs sentiment analysis on customer reviews from the E-commerce platform. The project begins by collecting a diverse dataset containing product reviews and corresponding sentiment labels.

### **Key Features:**

1. **Review Input:** Users can input product reviews, and the application provides real-time sentiment analysis, indicating whether the sentiments are positive, negative, or neutral.
2. **Overall Product Sentiment:** The application aggregates individual reviews to provide an overall sentiment score for a product, aiding users in understanding the general opinion about a specific item.
3. **User Comments Analysis:** Users can explore detailed sentiment analysis results for specific reviews, allowing for a more in-depth understanding of customer feedback.
4. **Comparison Tools:** Users can compare sentiment scores across different products, helping them make more informed decisions when choosing between various options.
5. **User-Friendly Interface:** The web application is designed with a user-centric approach, ensuring accessibility and ease of use for consumers with varying levels of technical expertise.