QSKLLS

Department of Computer Science & Engineering

Task Completion Report

A Project Report

On

" SENTIMENT ANALYSIS FLASK"

Submitted by

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Under the guidance of

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Introduction

With the rapid growth of user-generated content on social media, reviews, and feedback platforms, understanding public opinion has become essential. Sentiment analysis helps organizations and individuals analyze opinions efficiently. Flask, a lightweight Python web framework, is ideal for building simple and scalable web applications. This project demonstrates how Flask can be used to create an interactive sentiment analysis tool that processes user input in real time.

Abstract

Sentiment analysis is a natural language processing technique used to identify the emotional tone behind a piece of text. This project focuses on developing a web-based sentiment analysis application using the Flask framework. The application allows users to input text and analyzes whether the sentiment expressed is positive, negative, or neutral. By integrating a pre-trained sentiment analysis library, the system provides quick and accurate results through a user-friendly web interface.

Objectives

The main objectives of this project are:

- To develop a web application using Flask.
- To analyze user-entered text and determine its sentiment.
- To classify sentiment as positive, negative, or neutral.
- To provide an easy-to-use interface for real-time sentiment analysis.

- To demonstrate the application of NLP techniques in web development.

System Description (Flask Application)

Technologies Used

- Python
- Flask
- TextBlob (for sentiment analysis)
- HTML/CSS

Application Workflow

1. User enters text in a web form.
2. Flask receives the input text.
3. Sentiment analysis is performed using TextBlob.
4. The result is displayed on the web page.

Limitations

- Accuracy depends on the sentiment library used.

- Sarcasm and context are difficult to detect.

- Works best with English language text.

- Not suitable for domain-specific sentiment without training.

- Limited scalability without optimization.

Conclusion

This project successfully demonstrates the development of a Flask-based web application for sentiment analysis. By combining Flask with a sentiment analysis library, the system provides a simple yet effective way to analyze user emotions from text. While the application has certain limitations, it serves as a strong foundation for more advanced NLP-based web applications and can be enhanced with machine learning models, database integration, and improved UI design.