

Smart Feedback Analyzer: A PHP-Python Based Sentiment Tracking System

Abstract

Smart Feedback Analyzer is a dynamic web-based application that enables users to submit feedback and automatically analyzes its sentiment using natural language processing (NLP) techniques. The system integrates HTML, CSS, PHP, MySQL, and Python to provide an end-to-end solution for collecting, storing, analyzing, and displaying user feedback.

This project aims to enhance decision-making by helping website administrators or product teams understand the tone and quality of user feedback through real-time sentiment classification. It categorizes feedback as Positive, Negative, or Neutral using Python's nltk library.

Objectives

- To collect user feedback through a web interface.
- To store feedback data securely in a MySQL database.
- To analyze the sentiment of the feedback using Python and NLP.
- To display feedback and their sentiments for administrative review.

Technology Stack

Frontend: HTML5, CSS3

Backend: PHP

Database: MySQL (XAMPP)

AI/ML: Python with NLTK

Server: Apache (XAMPP)

Deployment: Localhost via XAMPP

Features

- Feedback Submission: Users can provide their name, email, and feedback message.
- Sentiment Analysis: Feedback is classified into sentiments using Python NLP.
- Database Storage: All feedback and their sentiment are stored securely in MySQL.
- Feedback Dashboard: View all submitted feedback with sentiment tags.
- PHP-Python Bridge: Secure integration between PHP and Python for real-time processing.

Modules

- User Interface Module - index.html, feedback.html
- Data Processing Module - submit_feedback.php
- Sentiment Analysis Module - analyze_feedback.py
- Storage Module - feedback_db (MySQL database)
- Admin Dashboard Module - show_feedback.php

Advantages

- Real-time sentiment analysis with instant feedback tagging.
- Simple and intuitive web interface for users and admins.
- Easy deployment on local servers with XAMPP.
- Scalable for integration with CRM or product review systems.

Conclusion

The Smart Feedback Analyzer combines the simplicity of web development (HTML, CSS, PHP) with the intelligence of Python's NLP libraries to create a smart solution for managing user feedback. It provides not only storage but also meaningful insights to improve services based on user emotions.