Feedback Assessment System based on Sentiment Analysis

Category - Web Application

PURPOSE

The purpose of developing a "Feedback Assessment System" is to encompass the genuine sentiment of the users towards a particular product or service.

SCOPE

It can process numerous feedbacks and provide a detailed sentiment overview. Obtained results can be used by the administration to provide better services to the users.

Users can communicate with the administration through feedback, whereas vice versa will not be possible. Results may not be 100% accurate. The system can only process textual data.

INTRODUCTION

Existing Systems

The present system is a star/numeric based rating system. It requires the user to award a particular number of stars or a percentage. These systems sometimes also require the user to provide text-based feedback. These text-based feedback provides a better realization of feelings towards a service, but it is an extremely time-consuming process for those who read and analyse these feedbacks. Individual bias *(of those analysing these feedbacks)* may be involved in processing of textual feedback.

The existing system has the following drawbacks:

- Star ratings are not detailed enough, and each person has a different reason to award a particular rating, resulting in an inadequate insight.
- Textual feedback does not contain any numerical information resembling star ratings, due to which statistical analysis is not possible.
- Reading multiple textual feedback can be time-consuming.

Proposed System

The "Feedback Assessment System" aims to provide an alternative to the existing systems while trying to provide more insightful and actionable data. The proposed system reports the overall sentiment towards a service using machine learning techniques.

The system, after careful analysis, has been identified to be presented with the following modules:

- **Registration:** Users can make their individual profiles using a user ID and a password.
- **Services and Feedback:** The administration can add new services. Users can provide feedback for a particular service.

- **Sentiment Analysis Dashboard:** The administration can view the analytical reports of the feedback based on sentiment analysis.
- **Feedback Dashboard:** The administration can view all the logged feedback of all or selected services. Users can view, edit, and delete their feedback(s).

Advantages for Administrators

Advantages for administrators are explained below:-

- **Time saving**: Sentiment analysis of textual data is time efficient and provides better insight.
- Easy and efficient sentiment report generation.

FUNCTIONAL REQUIREMENTS

1. Administration/user must have a unique user ID and password, thus creating an individual profile.
2. The administration can only add new services.
3. Users can provide feedback for a particular service.
4. The administration must be able to view all the logged feedback.
5. Users must be able to edit and delete their feedback.

NON FUNCTIONAL REQUIREMENTS

1. Maximum time availability of the system.
2. UI/UX is minimal and easy-to-use.
3. The details of users and their feedback are stored and accessed securely.
4. Client or server side session data can be handled securely.

SOFTWARE TOOLS

Database System: MySQL

Target Platform: Google Chrome and Mozilla Firefox

Development Tools: Visual Studio Code

Programming Languages: JavaScript and Python

Frameworks: Bootstrap, Express.js and Flask

DEPLOYMENT

Any Operating System installed with Node.js, Python Interpreter and Flask.

HARDWARE SPECIFICATIONS

OS: Windows, Linux, Mac

RAM: 4 GB

Hard Disk: 128 GB

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