Feedbuzz: A Feedback System with Automated Solutions

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Abstract: The currently existing systems take feedback from the customers for their respective products in an unorganized manner i.e. negative and positive feedbacks are unsorted. This makes it difficult for the administration to have a clear picture of a particular product. Also admin has to manually provide solutions to the customers in case of any discrepancies. The main motive of our project is to overcome the above mentioned problem. This system will segregate the positive and negative feedbacks provided by the customers. At the same time it will automatically generate solutions to the negative feedbacks. Sorting of the negative and positive feedbacks will help the administrator to have a clear picture of the overall performance of the product.

This system is mainly based on Apriori and MOPNAR (Multi-Objective Positive Negative Association Rule) algorithms. Using Apriori algorithm association rules are generated and using MOPNAR (MultiObjective Positive Negative Association Rule) algorithm solutions are provided to the negative reviews.

Keywords— feedback; segregation; solution; application; critical problem; business; intelligence; enterprise;

1. Introduction

Feedbuzz: A feedback system with automated solutions majorly deals with the feedback system. The existing feedback systems do not sort out the positive and the negative feedbacks. Also, the administrator has to manually type and provide solutions to the customers. Feedbuzz: A feedback system with automated solutions segregates the positive and negative solutions and automatically generates solutions for the negative feedbacks given by the customers.

Key features which makes our system better:
- All the reviews are sorted out as positive and negative reviews unlike the existing systems.
- Also, this system emphasizes on the negative reviews while existing systems do not.

- The most important feature of this system is that it provides solutions to the negative reviews automatically.

2. Design and Implementation of the System

A. System Architecture

The Consortium of components narrates the complete designing of system. It also provides the indirect functioning of the system. Admin system implements Apriori algorithm to find out the critical problems whereas User system implements Sentimental Analysis algorithm for segregation of reviews and MOPNAR algorithm for providing solutions to the negative reviews. Hence, System provide services to user in order to analyze a product and receive solutions for negative reviews.

B. Mathematical Equations

Apriori is an algorithm for frequent item set mining and association rule learning over transactional databases. It proceeds by identifying...
the frequent individual items in the database and extending them to larger and larger item sets as long as those item sets appear sufficiently often in the database. The frequent item sets determined by Apriori can be used to determine association rules which highlight general trends in the database.

\[ F_1 = \{ \text{large 1-itemsets} \}; \]
\[ \text{For (} k = 2; F_{k-1} \neq \emptyset; k++ \) \]
\[ C_k = \text{Set of New Candidates}; \]
\[ \text{For all transactions } t \in D \]
\[ \text{For all } k\text{-subsets } s \text{ of } t \]
\[ \text{If } (s \in C_k) \text{ s.count}++; \]
\[ F_k = \{ c \in C_k | c.\text{count} \geq \text{min_sup} \}; \]
\[ \text{Set of all frequent itemsets} = U_k F_k; \]

C. The Implementation of the System

The System has developed using multiple edge cutting technology like NetBeans, java swing and java web technology.

![Feedbuzz: A feedback system with automated solutions](image)

**Figure 2: Deployment Modules of the system**

NetBeans used for developing web application which forwarded multiple request to database and database provides data to the user. User web application enables the facility like purchasing the product, view all reviews of a product It also provide the functionalities like segregation of feedbacks as well as viewing the solutions for negative feedbacks. Admin’s web application is for administrator who’s taking care of add and manage menu.

Admin web application is also provided with functionalities such as segregation of feedbacks and viewing of critical problems of products. Web application implemented collection of algorithms to provide service to admin and multiple users. Most pre-dominant algorithms are Apriori, Sentimental Analysis and MOPNAR algorithm. User first provides feedback for a product and after that based on negative and positive word datasets the system segregates the feedbacks and provide solutions for negative feedbacks to client. At the admin web application the feedbacks provided by the user are fetched and segregated, which helps in determining the critical problem of products.

3. Results and Discussions

By the use of FEEDBUZZ: A Feedback System with Automated Solutions, the performance of a particular product can be improved. This will ultimately lead to enhancement of the overall system performance. Currently, this software has limited applicability. But in the near future, it can be implemented on a large scale.

Data and Text Mining is a famous area of research in Computer Science. There are a number of algorithms used in Text mining among which sentimental analysis, Apriori and MOPNAR (Multi Objective Positive Negative Association Rules) have been implemented in this system.

Thus, it will improve the future feedback systems undertaken by the huge organizations.

4. Conclusion

Due to the smart working of FEEDBUZZ: A Feedback System with Automated Solutions, the administrator’s tedious work of manually typing solutions to each and every negative feedback is avoided. It also gives the customers an organized view of the reviews for any product. Also, the administrator can keep a check on the performance a particular product and work further for its enhancement.

It provides an optimum and efficient way of sorting a feedback system in an organized manner and automatically generating solutions which gives a way to build a smart system. It is an automated system which informs about the status of performance of the product and focuses on user requirements and product enhancement.

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6. References

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