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A Model for Drug Review using Opinion Mining

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Abstract: In this paper we have proposed a model using probabilistic aspects for designing a Web based model which will help people on large scale to understand various newly invented drugs and as well as previously invented drugs which are not so popular but effective one. Age wise grouping is done so that, it will help people according to their disease. People of various age groups are going to take advantage of this model with respect to their age group from the reviews which are given by users who have used them from various locations. This model facilitates another important factor that Doctor, Pharmacist, and general users to communicate among themselves so that they can clarify their doubts and take advantage of suggestions.

Keywords: Distributed applications, Distributed databases, Meta-Information, Corpus, Supervised Learning, Opinion Mining, Drug Review, Aspect Mining, Text Mining Un-Supervised.

I. INTRODUCTION

With the facility of Web people are now enabled and motivated to contribute their data to the world wide web. Now-a-days many user-centered platforms are made available for users, in order to share information and to interact with one another. Now-a-days tendency of people is changing towards any product or any service, they not only check all the official information provided, but they tend to check for more practical reviews and experienced from the consumer side for such entire process to carry out there are many facilities available such as Blogs, Forums, Online Reviews (Opinions). In this case it is a challenging task to effectively analyze such voluminous amount of information imperfect manner.

Opinion mining is process of extraction of desired information. From a big amount of text opinions or Reviews uploaded by the users. Entire qualities of any product cannot be described in detailed format. Let us take an example of the mobile which is having excellent display screen but very poor battery life. Hence there is need to develop more sophisticated aspect level mining approaches which have proposed to extract and cluster of the product [2] frequency based approach [3] Relation-based approach [4], [5], supervised learning.

Previous studies show that opinion mining deal with all the famous consumer products or services such as Books, Electronic, Electric devices, Clothing, Furniture, etc. Entities of Medical domain was very less concern. It is because patients of minority concern are not likely furthermore, people tend to take opinions from medical professionals than that of patients who have used them. Many patients like to get more information from other patients with same conditions and symptoms as well as side effects of drugs. Online Communication strategy were established to have positive impact on patients [6]-[7].

Unlike other general purpose products and services, drugs have limited amount of kind of aspects: Ease of use, price, effectiveness, side effects and Dosage. There also exist other technical points which are not expected to be mentioned in the Reviews. There arise some difficulties in dealing with drugs reviews is that the words which are describing its effectiveness and also side effects.

II. PROBLEM STATEMENT

In pharmaceuticals MRs are responsible for the marketing of their drugs. These MRs approach doctors and chemists for marketizing their drugs. Many user-centered platforms are now available for information sharing. Online reviews, blogs and forums devoted for different kinds of products effectively analyze and exploit such immense online information source is a challenge. In the existing system we have a provision in which all the diseases and the drugs used for their cure are mentioned.

User reviews are analyzed Based on this analysis graphs are drawn. If the negative percentage of the drug reviews is high then the medical officer can action on the pharmaceutical company regarding the same. Pharmaceutical companies will be able to check the reviews. Diseases faced by people in different locations in different age groups are different.

III. RELATED WORK

In a database of reviews, let us assume that every review is in bag-of-words format and class label is assigned. There are many ways of identifying the class labels, information gain [8] association rules [8], point wise mutual information (PMI) [10] etc. Above mentioned all the approaches face severe problem i.e. it is hard to understand from some limited set of words along with class labels. They have designed a model which displays reviews on chronic Diseases and Drugs. Categorization is done according to male and female basis. Calculation of final result is done by probability based formulae which gives output on that basis final result will be displayed in the form of pie-chart[1]They have designed model based on a probabilistic framework which is calculated according on the basis Bayesian network for modeling and Real-time human fatigue by organizing and collecting information from various sensory data and fatigue can be caused due to various complicated factors they have tried to prove this[2]For the identification of side effects caused by various drugs they have made proper use of Association Rules. This system they are developed for allowing users to inquire about various Drugs. And also its related side effects as well as Reviews obtained from Web. They have done analysis on the long term usage of same drug on the human body how it is harmful and can cause severe side effects[3]Microelectromechanical system(MEMS) have been used widely in many applications such as display technologies, sensor system and also optical network and in medical fields for drug delivery system with the help of micropumps Electrostatic attraction is used for actuation of micro system. Study of various Drug Delivery system is done and finally concluded that Electrostatic actuation is best among the all. Electrostatic actuation is most popular in micropump applications than others.They have compared various research parameters [4] for statistical report in drugs reviews. They have made use of opinion mining and have designed Probabilistic model for calculating the final Result. Sentiment Analysis and opinion mining is done to find out hidden information. Sentiment Classifiers are present for identification of text like positive, negative or neutral. Online reviews are most flexible one. This helps in dimensionality reduction of text. This helps in dimensionality reduction of text. This uses all reviews and finds the aspects that are helpful in identifying the desired class [5].

IV. SYSTEM ARCHITECTURE

Modeling business process and workflow is an important task in development of any software application, and occurs very early in a project development. Model driven approaches definitely have an upper edge over code-driven approaches. Spiral Life Cycle Model is one of the most flexible SDLC models in this situation.

Development phases can be determined project manager. Project monitoring is very easy and effective. Each phase requires a review from authorized people. This increases the transparency of the model.

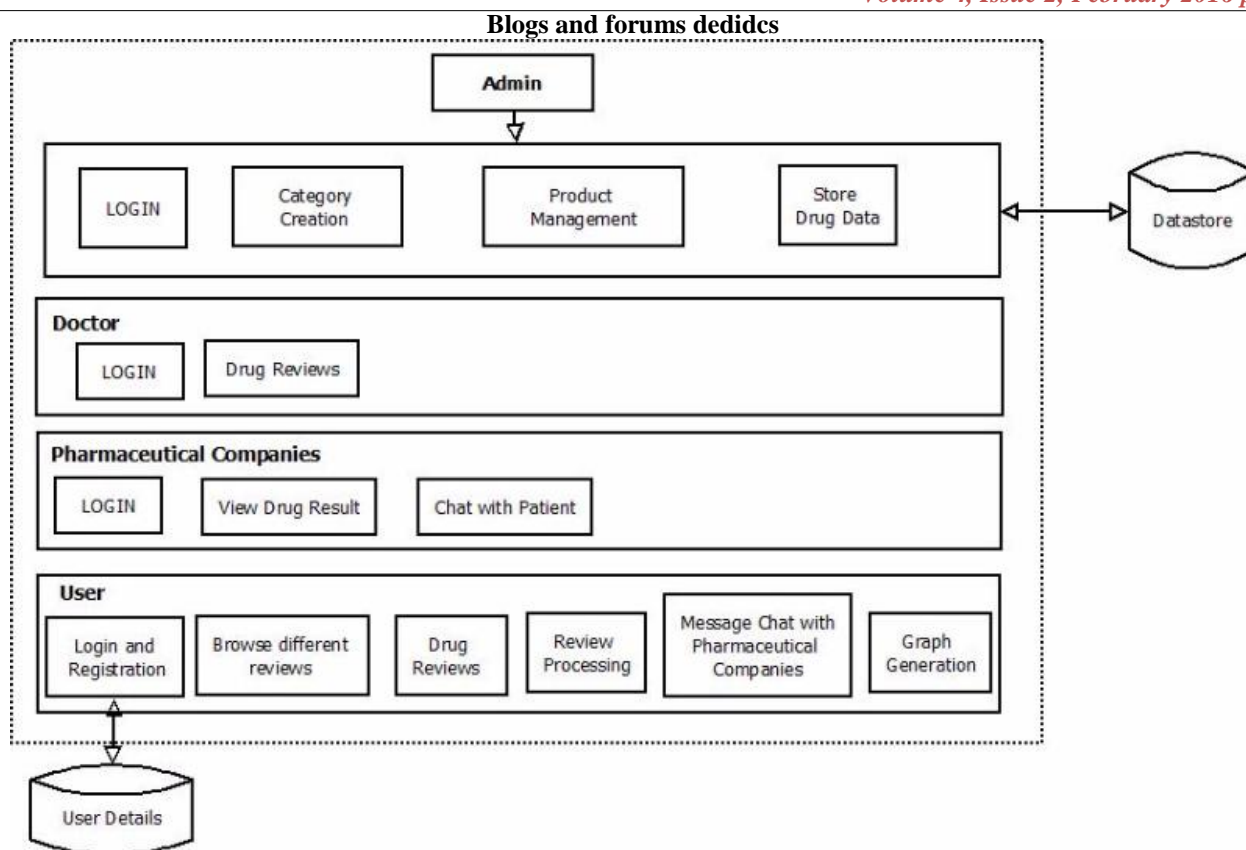


FIGURE1. System Architecture

V. STORAGE OF DRUGS

Storage of Drugs is called Drug Bank Data Base. Collection of drugs can be made accessible and quality of information about it is maintained in very proper manner that will be very efficient in to retrieve if needed. Drug database is classified according to respective disease categorized that will help to find out similar types of medicines and their alternatives.

VI. DATABASE

Organization of all information about various Drugs and Medicines is called database. Database Management System is the application developed to interact with various consumers, and there are various formats for analyzing the information. DBMS provides many facilities such as, creating new data type, query processing, updation, alteration, and modification. Database management system provides access to following languages like PosterSQL, Microsoft SQL server, Oracle.

VII. CONCLUSION

Thus we have proposed a model in which the reviews are analyzed and appropriate graphs are prepared. The user can make use of the drug to cure their disease based on the ratings they see from the graphs. Studying of patient reviews provides a value reference from the patient's point of view.

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