Recommendation System For Electronic Products Using BigData

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Abstract— *In most general terms, Recommendation systems are defined as the techniques used to predict the rating one individual will give to an item or social entity. These items can be books, movies, electronic and things on which individuals have different preferences. In existing services discovery and recommendation approaches focus on keyword-dominant Web service search engines, which possess many limitations such as poor recommendation performance and heavy dependence in correct and complex queries from user. Recent research efforts on online service recommendation center on two prominent approaches collaborative filtering and content-based recommendation. In both approaches have some drawbacks, which restrict their applicability in Web service recommendation. In proposed system for recommendation we will be using Agglomerative Hierarchal Clustering or Hierarchal Agglomerative Clustering for effective recommendation in this system.*

Keywords—Recommendationsystem;Agglomerative Hieararchal clustering, New use,Ratingr.

Introduction

The use of recommendation techniques is very important for a system that will provide good and useful recommendation to its individual users. This explains the importance of understanding the features and potentials of different recommendation techniques. Recommender systems are information filtering systems that deal with the problem of information overload by filtering out of large amount of dynamically generated information according to user's preferences, interest, or observed behavior about item. Recommender system has the ability to predict whether a particular user would prefer an item or not based on the user's profile. BIG data has emerged as a widely recognized trend, attracting attentions from government, industry.

Big Data concerns large-volume, complex, growing data sets with multiple, autonomous sources. The most fundamental operation for the Big Data applications is to explore the large volumes of data and extract useful information or knowledge for future actions. With the rapid growth of Electronic products, people are facing numerous choices of different kinds of products. People are overwhelmed by the choices and it may take a lot of time to decide which product to buy. Using recommendation system we can easy to analyse the product by it rating and reviews.

LITERATURE SURVEY

Mehdi Elahia, Francesco Riccib [1] presented a survey of active learning in collaborative filtering recommender systems In general, the more ratings are elicited from the users, the more effective the recommendations are. However, the usefulness of each rating may vary significantly, i.e., different ratings may bring a different amount and type of information about the user's tastes.it mainly focused on user-based approaches compute rating predictions for a target user by using two sets of data, the ratings of the target user. Langer [2] To measure a recommender's accuracy and to gauge user satisfaction three evaluation methods are commonly used: user studies, online evaluations, and offline evaluations. In user studies, users explicitly rate recommendations generated with different algorithms and the algorithm with the highest average rating is judged the best algorithm. An identification of the most promising approaches for recommending research papers is not possible, and neither is a replication for most evaluations. Krishna Agarwal [3] Android has been revolutionary since its evolution. Android Applications have given a new dimension to the mobile market. Here the Application allows a user to make friends online on basis of their lifestyle matching quotient. Overall idea behind social networking and its friend suggestion algorithm has been improved. ,Surajpatil, NihitAgarawal [4] A graph traverse algorithm based on the proposed graph structure to discover the Tsps. The experimental results show the proposed mining method is highly efficient to discover Tsps. Also there is optional Hidden Markov Model where current state is not known. That is in Hidden form but it can predict from observed predict sequences.

PRPOSED SYSTEM

The proposed system is the Recommendation System for Electronic products, By analyze datasets it recommends product to end user. Filtering are such techniques that can reduce the data size by a large factor by grouping similar services together. This approach is enacted around two stages. In the first stage, the available services are divided into small-scale clusters, in logic, for further processing. At the second stage, a collaborative filtering algorithm is imposed on one of the clusters.

In this approach Agglomerative Hierarchal Clustering or Hierarchal Agglomerative Clustering is used. This is a

"bottom up" approach: each observation starts in its own cluster, and pairs of clusters are merged as one moves up the hierarchy. These approaches increase the performance of recommendation of the best products. By using this Recommendation system. It can reduce the time consumption and user can easy get the recommend product. The validation process is getting more and more easier when compared to the previously existing system.

SYSTEM DESIGN

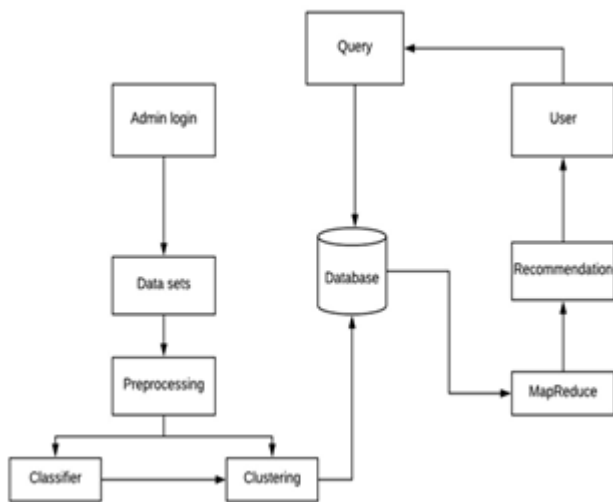The architecture diagram is explained as below:

Fig 1 Architecture Diagram

Initially the user have to register by entering the user details. After that the user have to login to the account. Once it entered the user have to pass the query in order to fetch the concern details. The query thus passed is then accessing the respective details from the database. Following that map reduce is performed .By the way, the user is thoroughly recommended according to the raised query.

In order to access the datasets ,the admin login is essential. Once the admin login is ensured it starts preprocessing the datasets which is already defined. The preprocessing is of two sets namely Classifier and Clustering. Thereby after clustering of datasets, it feeds the concern data to the database.

Data Flow

In this part the data flow the of application is explained to make clear the concept.

Fig 2 Data Flow

From the fig.2. First the user have to register by entering the complete user details. After Registration, the user have to login .It flows to the selection of product list from the drop down displayed. From that list alone ,the user will choose the product name. Then the Map reduce is duly performed at that instance. As a sequence, the system will Filter out the list according to the user query .Whenever it satisfies the requirements or desire of the user concern , immediately it displays the filtered out list to the user. The datasets generated by admin and it feed into the database.
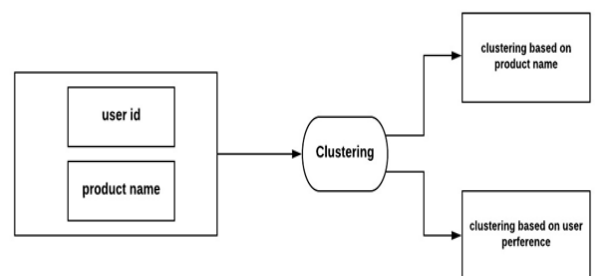
Data Clustering

Figure 3 Data Clustering

The User id thus generated and the product name are made into a cluster by the coarse of clustering. Clustering results are segregated into two as "result based on User id" and the "result based on the product name". This is

completely achieved by the Clustering process. Admin processing the datasets and updated to the recommendation system

CONCLUSION

Thus the system recommends the user that "Which product suits the user necessities?" The user is strongly guided by the system by the way of recommending the proper Filtered list. The time complexity is highly detoriated by preferring the proposed recommendation system. The system ensures the upliftment of the user seeks. The validation process is getting more and more easier when compared to the previously existing system.

FUTURE ENHANCEMENTS

At present the user can only get the recommends for the specified product list alone. But in the future it will get improved to level that "the user can get the recommends stating the specified list along with the other brand or product which is equally best. Instead of manual feed of the datasets ,they are dynamically getting updated in the system database.

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