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A Survey on Business Management of Hotel System

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ABSTRACT: In this Project we proposed MobiContext , a hybrid cloud –based Bi-Objective Recommendation Framework (BORF) social networks .The MobiContext utilizes multi-objective optimization techniques to generate personalized recommendations. Address the issues related with cold start and data sparseness, the BORF performs data pre-processing by using the Hub-Average (HA) inference model. The results of comprehensive experiments on a large-scale real dataset confirm the accuracy of proposed recommendation framework. Existing recommendation systems based their models on collaborative filtering approaches that make them simple to implement. However, performance collaborative filtering-based recommendation system suffers due to the challenges, such as: (a) Cold start, (b) Data sparseness, (c) Scalability. Recommendation problem is always characterized by the presence of many decision variables, such as users' preferences and venue closeness.

KEYWORDS: Multi-objective optimization, Collaborative Filtering (CF), Hub-Average (HA).

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I.INTRODUCTION

In this project we will get easy availability of numerous e-commerce and social networks services, such as Amazon, Foursquare, and Gowalla, have resulted in the entire volume of data collected by the service providers on daily basis. In this system user can updates his status according to that status system can find the location of that user. System can also trace the places nearby to that location.

This system is used to save Cost &Time. Information systems (IS) are area under discussion to enthusiastically changing state of affairs in the IS delivery phase. Now peoples are avoiding use of public e –services and prefer physical services. This System is extensively used in order to recover the practice of software and tools which provide suggestions by recommending the items which users might likely be interested for recommendation system which is more popular.

Recommendation systems are increasingly developing new component of e-business applications. For instance Recommendation system of Amazon provide to customer his interested Item and interested area what he search previously. Recommendation systems utilize various knowledge discovery techniques on a user's historical data and current context to recommend products and services that best match the user's preferences.

In this era social networking services like Facebook and Google Latitude has significantly getting the attraction of a large number of subscribers. A mobile social networking service allows a user to perform a "check-in" that is a small feedback about the place visited by the user .Large number of check-ins on daily bases results in the collection of large volumes of data. Based on the data stored by such services, several Venue-based Recommendation Systems .were developed. Such systems are designed to perform recommendation of venues to users that most closely match with users' preferences. Despite having very promising features, the VRS suffer with numerous limitations and challenges. A major research challenge for such systems is to process data at the real-time and extract preferred venues from a large huge and different dataset of users' historical check-ins

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II. EXISTING SYSTEM

Now most of the existing recommendation systems are based on their models collaborative filtering approaches that make them simple to implement. Current system challenges like:

- In the existing system, the person who wants to book a room has to visit the hotel for booking hotel rooms, and enquiry.
- The existing system is manual system.
- The hotel management has to keep records of rooms manually.

DISADVANTAGES OF EXISTING SYSTEM

- It is a time consuming process.
- There is no surety of availability of rooms.
- Paper work results in need of lot of space to keep the data.
- Lack of security.
- Chances of human errors.

III. PROPOSED SYSTEM

In this project we introduce cloud based framework consisting of bio-objective optimization of methods named as CF-BORF and greedy – BORF . Also introduce pre-processing phase that performs data refinement using HA. All the experiments were conducted on real world .

- To overcome the problems of manual system, online hotel management system is proposed.
- The Central objective of Online Hotel Management is to provide online facility for booking rooms.
- This software can manage and keep records of hotel.

ADVANTAGES OF PROPOSED SYSTEM

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- Saves time of customers in quickly reserving rooms.
- The ability to book rooms anytime, from anywhere with Internet access.
- Provides the information about hotel facilities.
- very secure.
- User friendly.

Architecture Diagram

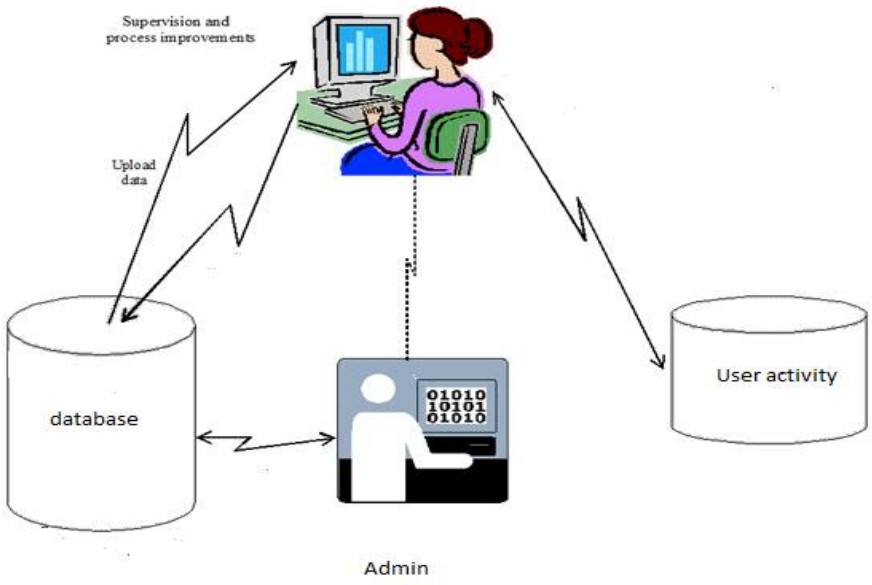

Fig. Architecture diagram

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Algorithm:

CF- BORF-based Venue Selection

Input: Current User: c, region: R

Output: $Toprec$= A set S' of top-Nvenues.

Definitions, = *set of venues visited by expert user e, = set of recommended venues, lc=location of current user c, = set of venues visited by current user, = set of expert users similar to the current user c, = closeness measure of the expert user e with the location of current user c, is similarity of the user c with the expert user e.*

1.$Nc \leftarrow \emptyset$; $zagg \leftarrow \emptyset$;
2: $Sr \leftarrow computsimset$ (c,E)
3: **for**$each\ e \in Sr$ do
4: S$\leftarrow \{v{:}Ve | v \notin Vc\}$
5: $çce \leftarrow m(computsimD(lc,S))$
6: za[e]$\leftarrow computeagg(sce\ ,çce)$
7: **end for**
8: $Nc \leftarrow computRec$(c,gg)
9: $Toprec \leftarrow sort\ (Nc)$

Module Description

The centralized architecture for venue recommendations must simultaneously consider users' preferences, check-in history, and social context to generate optimal venue recommendations. Therefore, to address the scalability issue, we introduce the decentralized cloud-based MobiContext BORF approach. The following are some of the major components of the proposed framework.

Number of Module:-

After careful analysis the system has been identified to have the following modules:

1.User Profile:-

Our system will maintain records of users profile for every geographical area .the profile of user will consider as identification, venue visited by user. And check-in time of venue.

2.Admin module

Ranking Module:-

After study on user profile the ranking module perform functionality during the Pre – Processing phase of data refinement. It will be running monthly, weekly basis on configured by system administrator. The ranking module applies model-based HA inference method on users' profiles to assign ranking to the set of users and venues based on mutual reinforcement relationship. Main thing about this module is take set of popular venue and expert users. We can call venue as popular if it's visited by many users. And user as expert if He / She visited many popular venues.

3. Employer Module:-

The purpose of this module is to generate network of likeminded people who share the similar preferences for various venues they visit in diffrent area. It also computes venue closeness based on distance between the current user and popular venue.

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IV. CONCLUSION

The significance and novelty of the proposed framework is the adaptation of collaborative filtering and bi-objective optimization approaches, such as scalar and vector. Data sparseness issue is addressed by integrating the user-to-user similarity computation with confidence measure that quantifies the amount of similar interest indicated by the two users in the venues commonly visited by both of them. Solution to cold start issue is discussed by introducing the HA inference model that assigns ranking to the users and has a precompiled set of popular unvisited venues that can be recommended to the new user.

REFERENCES

[1] "MobiContext: A Context-aware Cloud-Based Venue Recommendation Framework", Rizwana Irfan, Osman Khalid, Muhammad Usman Shahid Khan, 2015.
[2] "Context-aware Citation Recommendation", Qi He, Jian Pei, Daniel Kifer, Prasenjit Mitra, C. Lee Giles. , 2010.
[3] "Scalable Architecture for Context-Aware Activity-Detecting Mobile Recommendation Systems" , Michael Roberts, Nicolas Ducheneaut, Bo Begole, Kurt Partridge., 2008. Vol-2 Issue-3 2016 IJARIIE-ISSN(O)-2395-4396 2712 www.ijariie.com 4018
[4] A. Majid, L. Chen, G. Chen, H. Turab, I. Hussain, and J. Woodward, "A Context aware Personalized Travel Recommendation System based on Geo-tagged Social Media Data Mining," International Journal of Geographical Information Science, pp. 662-684, 2013
[5] M. Ye, P. Yin, and W. Lee, " Location recommendation for location-based social networks," In Proceedings of the 18th SIGSPATIAL International Conference on Advances in Geographic Information Systems, ACM, pp. 458-461, 2010
[6] C. Chow, J. Bao, and M. Mokbel, " Towards Location-Based Social Networking Services," In Proceedings of the 2nd ACM SIGSPATIAL International Workshop on Location Based Social Networks, ACM, pp. 31-38, 2010.
[7] S. Seema, and S. Alex, "Dynamic Bus Arrival
[8] B. Chandra, S. Bhaskar, "Patterned Growth Algorithm using Hub-Averaging without Pre-assigned Weights," In Proceeding of IEEE International Conference on Systems, man, and Cybernetics(SMC), pp.3518-3523, 2010.
[9]B. Hidasi, and D. Tikk, "Initializing Matrix Factorization Methods on Implicit Feedback Database," Journal of Universal Computer Science, vol. 19, no. 12, pp. 1835-1853, 2013.
[10] C. Chitra and P. Subbaraj, "A Non-dominated Sorting Genetic Algorithm for Shortest Path Routing Problemin Computer Networks," Expert Systems with Applications,vol. 39, no. 1, pp. 1518-1525,2012.
[11]Y. Wang, S. Wang, N. Stash, L. Aroyo, and G. Schreiber, "Enhancing Content-Based Recommendation with the Task Model of Classification," In Proceedings of theKnowledge and Management, pp. 431-440, 2010.
[12] J. Bobadilla, F. Ortega, A. Hernando, A. Gutiérrez, "Recommender Systems Survey,"Knowledge-Based Systems, vol. 46, pp. 109-132, 2013.
[13] J. Bao, Y. Zheng, M.F. Mokbel, "Location-based and Preference AwareRecommendation using Sparse Geo-Social Networking Data," In Proceeding of20th International Conference on Advances in Geographic Information Systems, ACM New York, pp.199-208, 2012
[14]M. Ribeiro, A. Lacerda, A. Veloso, and N. Ziviani, "Pareto-Efficient Hybridization for Multi-objective Recommender Systems," In Proceeding of6th ACM Conference on Recommender Systems, pp. 19-26, 2012.
[15] K. Deb, A. Pratap, S. Agarwal, and T. Meyarivan, "A Fast and Elitist Multi-objective Genetic Algorithm: NSGA-II," IEEE Transaction on Evolutionary Computations, vol. 6, no. 2, pp. 182-197, 2002.
[16] H. Nasiri, M. Maghfoori, "Multiobjective Weighted Sum Approach Model reduction by Routh-Pade approximation using Harmony Search," Turkish Journal of Electrical Engineering and Computer Science, vol. 21, no. 2, pp. 2283-2293, 2013.
[17]J. Abimbola, "A Non-linear Weights Selection in Weighted Sum for Convex Multi-objective Optimization," Mathematics andcInformation.