An Implementation of Secured Real Estate Solution using Clustering Algorithm based on Location Gathering Feature

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Abstract: Pattern recognition is a primary conceptual activity of the human being. Even without our awareness, clustering on the information that is conveyed to us is constant. This clustering activity is frequently based on a few selected properties and is not exempt from personal prejudice. Data mining is the process of automatically discovering useful information in large repositories. Data mining techniques are deployed to scour large databases in order to find novel and useful patterns that might otherwise remain unknown. Clustering is an important data-mining technique used to find data segmentation and pattern information. Clustering delineates operation for objects within a dataset having similar qualities into homogeneous groups. Traditional Estates Property dealing applications uses algorithms based on either the location factor or the quality attributes related with the property. The project presents a platform which basically combines both the factors for property dealing. In reality, objects not only have locations but also have quality attributes. Traditional queries ignore quality attributes, whereas conventional dominance-based queries neglect locations. Motivated by these observations, we propose an application by combining and quality attributes together meaningfully. So, here it is proposed new algorithm based on Local Gathering Feature which gives better result by taking into account local feature of the available property, and give the result within the threshold calculated dynamically based on user query and requirement.

Keywords— Location Gathering Feature, Clustering, Datamining Techniques

I. INTRODUCTION

The recent tremendous technical advances in processing power, storage capacity, and inter-connectivity of computer technology; data mining is seen as an increasingly important tool by modern business to transform unprecedented quantities of digital data into business intelligence giving an informational advantage. It is currently used in a wide range of profiling practices, such as marketing, surveillance, fraud detection, and Algorithm based applications. Consider that the user A is interested in buying a property in City B, the user A enters its requirements to search the property. Then the user may likely to get the results which are similar to his requirement but the potential property in which user A may be interested can go unnoticed. Traditional spatial queries and joins focus on manipulating only spatial locations, but they ignore the importance of quality attributes. The dominance comparison is suitable for comparing two objects with respect to multiple quality attributes. For the sake of simplicity, we assume that the domain of each quality attribute is fully ordered (e.g., integer domain). An object A is said to dominate another object B, if A is no worse than B for all quality attributes and A is better than B on average. The skyline query built upon the dominance comparison, retrieves the objects that are not dominated by any other. So, here it is proposed new algorithm based on Local Gathering Feature which gives better result by taking into account local feature of the available property, and give the result within the threshold calculated dynamically based on user A query and requirement.

Unlike most existing algorithms that require at least one pass over the dataset to return the first interesting point, our algorithms pro-aggressively return interesting points as they are identified. The Existing System uses query which provided the solution but not the optimal one. Let dist(s, h) denotes the Euclidean distance between a location(s) and a property (h). The queries are not enough to complete the task of the application because the queries are used to get the result which not clustered enough but it totally neglected the quality attributes related with the property. The drawbacks of the existing system are concentrated only on the specific area, the application using these queries was not user friendly and was not secure enough and these queries were not sufficient to know the local features.

The Traditional applications have a query which is not enough to complete the task of the application because the queries are used to get the nearest datasets only. Traditional queries and joins focus on manipulating only locations and distances, but they ignore the importance of quality attributes. Whereas, other systems focus mainly on the quality domain such that to choose the candidate which dominate the rest on basis of the characteristics. Thus there was the need to combine the above to factors to produce an optimal solution. Various Estates property dealing applications provide the available property on buyer’s demand keeping the fact that same properties should not be clustered in same area as it will not prove beneficial for the buyer.
II. RELATED WORK

Each document is represented by a vector of frequencies of remaining terms within the document. Some document clustering algorithms employ an extra pre-processing step that divides the actual term frequency by the overall frequency of the term in the entire document set[1]. Clustering divides data into groups of similarity. Each group, called cluster, consists of objects that are similar between themselves and dissimilar to objects of other group[2]. Document clustering is widely applicable in areas such as search engines, web mining, information retrieval and topological analysis. Most document clustering methods perform several pre-processing steps including stop words removal and stemming on the document set [3]. Under the research and analysis on different types of clustering algorithms, focus on the limitation of the Jarvis-Patrick algorithm and other clustering algorithm based on SNN density, a clustering algorithm is used, that is, Improved Clustering algorithm based on Local Gathering Features. The algorithm can deal with different types, dimensions, density and shape data collection problems, does not increase the time and space complexity, highlights the characteristics of Local Agglomerative Characteristics, improve the learning efficiency and the quality of data clustering[4]. LGF focus on local clusters distribution characteristics which displaying in the procedure of the whole clustering analysis. Analyse the features of the shared neighbours around the data object, such as density, size, shape etc, and redefine data objects’ similarity measure, and then improve the algorithm's adaptability and optimize efficiency. According to the local aggregate character of the object data set, the Main idea of LGF clustering is that two objects have higher similarity if they have the k shared nearest neighbor and have the relative near distance in local data object area at the same time[4].

The problem of clustering has been addressed in many contexts and by researchers in many disciplines; this reflects its broad appeal and usefulness as one of the steps in exploratory data analysis. It has great potentials in applications like object recognition, image segmentation and information filtering and retrieval [5].

III. PROPOSED SYSTEM

This paper formulates the Location Gathering Features(LGF) query using query/knowledge based algorithm that captures practical needs involving not only locations but also quality attributes. Then we adapt an algorithm which is basically clusters the properties on the basis of a particular field, this allows the mining of the solution using clustering and hence providing the optimal solution. The application also takes care of the properties submitted by the sellers for being legal as the property submitted is send to the admin to approve it for the application. Moreover, the moderator can see the feedbacks given by the users which can help the admin/moderators to take the necessary steps to make the application more users friendly. Finally, we conduct an extensive experimental study for the proposed methods on both real and synthetic datasets, and show that our best algorithm is indeed efficient and scalable.

In this paper, an application for real estate’s property dealing is proposed, based on the Local Gathering Feature algorithm has been applied to make buyer buy a quality property. The application takes care of two factors one is location and the other is dominated quality attributes, the buyer who wants to buy the property fills in his/her buying demand and applying an algorithm the available properties to be sold are shown to the buyer such that the properties shown are of high relevance and local quality attributes which allows the buyer to buy the best property. The requirements for implementing LGF using knowledge based algorithm are analyzed as per the guidelines in IEEE-830 [2] standard and documented as follows.

REQ-1: When the username and password is provided for the first time, the buyer/seller (users) should be redirected to signup page.
REQ-2: When the user has been validated for the correct username and password, he/she is redirected to the buyer’s page.
REQ-3: When the buyer fills in his/her demands for the property, he/she is shown the available properties to be sold based on the algorithm to implement LGF.
REQ-4: Whenever the seller fills in his/her property demand to be sold, the data is sent to admin to validate.
REQ-5: When the admin logs in, he/she can either validate the new selling demand or can delete.
REQ-6: When the admin deletes the new selling demand, it should be deleted from the database.
REQ-7: When the admin validates the new selling demand, it should be added to the database and should be shown in the available seller list.
REQ-8: Whenever the moderator logs in he should see all the feedbacks from the users to make the application more user friendly.

Architectural design stage enforces key design aspects to be considered in the early process. Software architecture serves as a design plan that is used to negotiate system requirements. The Fig 5 shows the detailed flowchart of the system design.
In general the application for implementing the real estate’s property dealing involves concept of LGF (local gathering feature). Various algorithms can be used to implement LGF, since LGF involves two factors namely the distance and the attribute factor thus the algorithms can differ in how to incorporate these two factors for the particular algorithm. For example the distance factor can even be incorporated by using any metric (like Euclidean distance etc) from the known landmark, this can be an alternative approach for the algorithm used to implement LGF. Whereas this project is using clustering approach in which the quality factor is calculated dynamically, this approach is found to be more user-friendly to implement LGF.
IV. RESULTS AND DISCUSSIONS

This paper revolves around the two modules namely buyer and the seller. The authorized user logs in successfully to buy a property based on the algorithm he/she is shown the available selling demands. The seller logs in to fill in his/her selling property’s demand but initially his demands are verified by the admin. The basic user interface will be in the form of a web page and a signup redirection. The user can logs in the application after a successful sign up and through validated credentials. Once logged in, the user is presented with the buying page where he/she can fill in the buying demand if he/she want to buy a property or else can choose a selling option to get an interface for selling a property which is initially validated by administrator. The buyer after filling in the demand is presented with the available property and its details of his/her interest undergoing the application algorithm.

V. CONCLUSIONS

In this paper, we proposed a novel complex type of query: Local Gathering Feature. The proposed algorithm, to deal with different density and shapes problems, all have very good adaptability, can accurate found natural distributed clusters and smaller clusters have strong concentration in local area. Compared with other related concern algorithms, the algorithm does not increase the time and space complexity, can improve the quality of clustering by apply local data space configuration features. Although LGF queries are suitable for various decision making applications, they are not solved by any of the existing techniques. It also generalizes our proposals to support the generic distance metric and other interesting query types. We conduct an extensive experimental study with various settings on both real and synthetic datasets. The results disclose the performance of our proposals, and identify the applied algorithm as the most efficient and scalable query processing algorithm. As a future work we can develop the system for provisional item. It will rank the popular and mostly preferable provisional items with reference to the user feedback. In case no matching items in the site connect another site and get the relevant items and also the mail page can be connected to some known provider to actually connect the dealers through mails. The other future enhancement can be to implement a live chat for the application between the buyer and sellers which provides a better accessibility as well as saves time consumption.

REFERENCES