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Fastest Nearest Neighbor Search with Keywords

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ABSTRACT: Conventional spatial queries, such as the range search and nearest neighbor retrieval, involve only conditions on objects' geometric properties. As most modern applications call for the novel forms of queries and the aim to find the objects satisfying as both the spatial predicate. Taken the example of restaurants, in this it finds the nearest neighbor restaurant with its special menu of the day. It's also helps to find the Hospitals, Petrol-Pumps and ATM's etc. The best solution to these queries is as based on the IR2-tree. Using this we can develop a new access method called as spatial inverted index.

This software shows the list of the keywords we search and stored the data in database. One of the most important is that data stored is optional.

KEYWORDS: GPS, route distance, MAP .

I. INTRODUCTION

A spatial database manage the multidimensional objects as points, rectangles, etc, and it provides fast access to those objects based on the different selection criteria. Importance of this spatial databases is reflected by the convenience modeling entities of the reality as geometric manner. As showing the example of restaurants, hotels, hospitals, etc. As this are often represented as the points in the map. Many functionalities of a spatial database are as useful in a various ways in the specific contexts. For instance, in geography information system, a range search can be deployed to find restaurants in an certain area with their address. Today, the most use of search engines has made it realistic to write spatial queries in an brand new way. The Conventional, queries focus on objects' geometric properties only, such as whether a point is in a rectangle, or how close two points are from each other. As we have seen that some of the modern applications that call for the ability to select objects based on both of their geometric coordinates and their associated texts.

A) EXISTING SYSTEM

[1] S. Agrawal, S. Chaudhuri, and G. Das. Dbxplorer :As Spatial queries using keywords have not been extensively explored. In past years, community has sparked enthusiasm in studying the keyword search relational databases. It until recently that attention was diverted to an multidimensional data. [3] G. Bhalotia, A. Hulgeri, C. Nakhe, S. Chakrabarti, and S. Sudarshan. The Existing works mainly focus on finding Nearest Neighbors. It does not consider the density of that data objects in the spatial space, and also these methods are low efficient for the incremental queries. We have finished the explaining how to build the leaf nodes of an R-tree on an inverted list. Each leaf is an block, and all the leaves can be stored in that blocked. Building non-leaf levels is an trivial, because they are invisible to the merging-based algorithms queries, and hence, they do not preserve any common ordering. They are free to apply any of the existing IR-tree construction algorithms. This are noteworthy that the non-leaf levels only add the small amount of overall space. And due to this IR-tree an number of non-leaf nodes is lower than that the of leaf nodes.

B) PROPOSED SYSTEM

[2].] N. Beckmann, H. Kriegel, R. Schneider, and B. Seeger As spatial database manages multidimensional objects such as the points, rectangles, etc., and they provides fast access to these objects based on different selected criteria



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.Spatial databases importance is reflected by the modeling entities. Many functionalities of a spatial database are useful in various ways in specific context. We can design an variant of inverted indexes that is optimized to multidimensional points, and thus it named the spatial inverted index (SI-index). This access method successfully incorporate point coordinates into an conventional inverted index with an small extra space. Spatial locality of data points contains, and comes with an IR-tree built on every inverted list at little space overhead. As it offers two competing ways for query processing. The lists we can merge sequentially, like merging traditional inverted lists by ids. Alternatively, we also can leverage the R-trees to browse the points of all relevant lists in ascending order of their distances to the query point. As demonstrated by experiments, the SI-index significantly performs the IR2 -tree in query efficiency, that often by the factor of orders of magnitude.

Modules:-

1. Registration Form
2. Login window(administrator, user)
3. Searching Techniques
4. Map view
5. Search Distance
6. Data Stored

i) **WORKING:-**

A spatial database manages multidimensional objects and provides fast access to those objects based on different selection criteria.

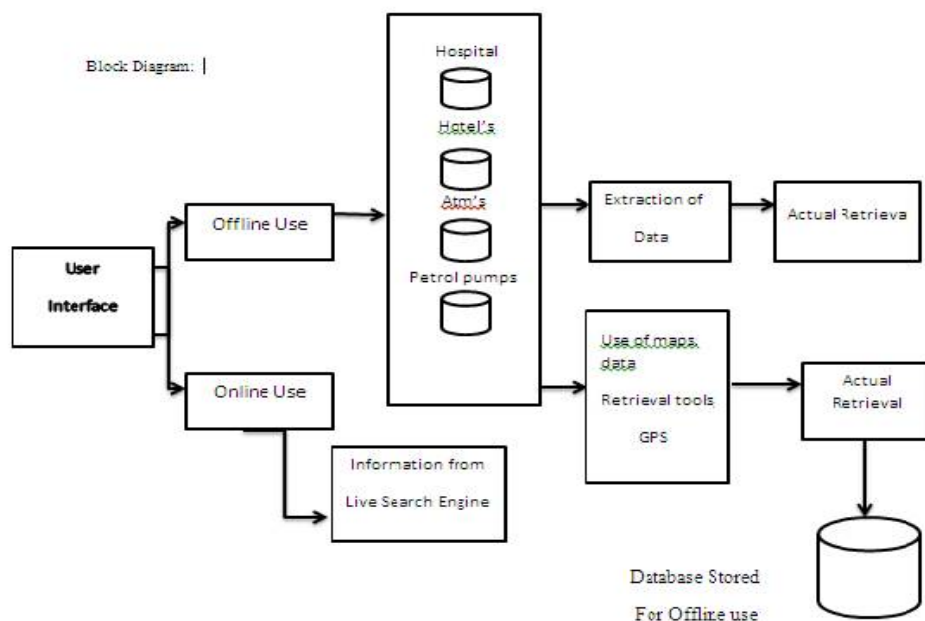
In geometric manner the spatial databases is reflected by modeling entities. Many of applications need to finding objects ,that is nearest to an given location that contains a group of keywords. An economical execution of nearest neighbor queries needs an increasing variety of applications affected by the properties of spatial objects. The recognition of keyword search using net, to produce a listing of keywords applications enable the users .Looking for properties with specific keywords,real websites enable users in their description and rank them in line with their distance from a given location. In such queries we tend to discuss. A query space and a group of keywords consist of spiral keyword query. The solution could be a list of objects and hierarchical in line with their distance to the query space and also the connection of their text description . A simple nevertheless variant that is employed is the distance first spatial keyword query, wherever objects square measure hierarchical by an distance. In this for top-k abstraction in keyword queries,there is no support .Instead, current systems use ad-hock combines of nearest neighbor and keyword search techniques to tackle the matter. For an example, associate points IR-Tree is employed to seek out the closest neighbors associate points for every neighbor an inverted index is employed to envision if the query keywords area unit contained. Economical methodology used To answer top-k spatial keyword queries, economical methodology is used.

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ii) MODULE DESCRIPTION:

System Model:

- In login page, there are two options Administration and user name registration.
- First the Administrator will login the registration page, by giving her password and username.
- Then the User will login the page. In this whatever list or record maintain by the admin will be seen by user after login.
- In this module Admin registers the location along with its famous place. Also he measures the distance of the corresponding place from the corresponding source place by using spatial distance of Google map[GPS]. Then the route or location is search and automatically saved in the database offline.
- It means that the user can give the key in which place that the city/location is famous for. In The list of menu items displayed in this results.

Example:Hotel Registration:-

- In this module Admin registers the hotel along with its famous dish of the day. Also he measures the distance of the corresponding hotel from the current location to destination place by using Google map.

Search Techniques:-

We are using two techniques searching for the document:-

- 1) Restaurant : It means the user can have list of the restaurants which are nearly located.
- 2) Search : It means user can give the key in which restaurant is famous for ,special day menus. List of Menu items displayed in the result.

Map View:

- By using Map View user can see their location by using Google Map (such as map viewed).
- The existing location-finding services on facilities is our main aim.

Advantages:-

1. By using Map View user can see their location by using Google Map (such as map viewed).



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2. By using Map View user can see their location by using Google Map (such as map viewed).

Disadvantages:-

1. Keywords have not been extensively explored with spatial queries.
2. It still directs the search to some objects, even though they do not have all the keywords.

III. APPLICATIONS

1. It is used to find all restaurants in a certain area, while nearest neighbor retrieval can discover the restaurant closest to a given address.
2. In a certain area, it is used to find petrol-pumps.
3. While searching the restaurants we are also able to view their special menu.
4. It is realistic to write spatial queries in a brand new way.

IV. CONCLUSION

Plenty of applications call for a search engine, we have seen the spatial queries that are integrated with keyword search. In this situation by developing an access method called the spatial inverted index (SI-index). Not only that the SI-index is fairly space economical, but also it has the ability to perform a keyword-augmented nearest neighbor search in time that is done in mill-seconds. Furthermore, as the SI-index is based on the conventional technology of inverted index, it is readily incorporated in a commercial search engine that applies massive parallelism, implying its immediate industrial merits..

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