Searching the Closest Neighbor by Retrieving Information Based on Multiple Keywords

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Abstract:
Nearest neighbor retrieval is all about finding the location of any entity (hotel, hospital) by fetching the data from the database. Traditionally nearest neighbor retrieval and range search spatial queries focused on only geometric properties of objects. Now a days, there are many applications uses different forms of queries that has goal to find objects which satisfies both spatial predicate and predicate on their associated text. The IR² tree is the best solution to it. The proposed system is about the detailed study of IR² tree which overcomes the deficiency that affects its efficiency. For example instead of considering all the hotels, a nearest location query would instead ask for hotels which is closest to the user includes “Veg, Non-Veg, Beverages” at the same time also ask for the available parking slots so implement such system the spatial inverted index method is accessed, that deals with multidimensional and give the response of all nearest neighbors in real time.

Keywords: Nearest Neighbor Search, Keyword Search, Spatial Index

I. INTRODUCTION
These trends support the real time concept, which are used to improve and provides quick access to attributes depends on different selection criteria. The spatial index algorithm is capable of taking more inputs (multidimensional) from the user. So that exactly one location can be find out with respect to that input keywords. For example locations of hotels, hospitals, restaurants and so on can be described as vertices in an exceeding map, whereas parks, landscapes etc as a mix of rectangles. By introducing spatial inverted index method, the time and space complexities can be reduced than before. Also user can book the parking slots near to that recommended location, to save time. The proposed system can be used for advertising and marketing purpose.

II. LITERATURE REVIEW
B.Hima Giri Nandini, K.Ravi Kumar [2] in 2015 proposed a technique spatial inverted index which is an extension of traditional inverted index using multidimensional data with less responsive time. C.Usha Rani, N.Munisankar [3] in 2014 introduced the spatial queries jointly and returns only user specified number of optimal results and implemented cache based approach.


III. SUMMARY
All the attributes (multidimensional keywords) are taken by the user and the system stores that keywords in the databases. Then by retrieving information from existing dataset, the user gets recommendation for exact nearest location. SI index algorithm is an efficiently minimizes the space and time complexities.

![Figure 1. Space and time complexities.](image)

IV. REFERENCES


V. CONCLUSION

These proposed system works as a search engine that is able to efficiently support spatial queries which are integrated with keywords search. The existing system had some disadvantages like space consumption or unable to give real time solutions. The proposed system gives better solution by developing retrieving method known as spatial inverted index (SI index). SI index is not only space efficient but also has ability to search nearest neighbor in milliseconds of time.

