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Smart Delivery Application for Delivery Boy by Using K Nearest Neighbour And Haversine

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ABSTRACT

Internet business has permitted firms to set up market nearness or to improve a current market position by giving a less expensive and more efficient dispersion chain for their items or services. One example of first that as successfully use e-commerce is target this mass retailer not only has physical stores but also has an online store where the customer can buy everything. Due to its advantages and popularity ecommerce websites are the hot topic in today's world. The delivery boys or salesman of this ecommerce business faces many problems. Main problem faced by the delivery boy do not have any particular strategy for delivering number of products in proper way. There is no any current system is available which will guide them for shortest path for product delivery in minimum time. The existing system does not provide as much efficiency. In the given proposed application, this problem will get solved. The proposed systems will find out the shortest route for delivery boy for delivering products. The salesman or delivery boy will enter multiple points of interest and resultant shortest path will be the find out by application. This application continuously keeps track moving mobile clients i.e. salesman or delivery boy. Approximate k nearest neigh-boar (kNN) queries where the mobile user queries the location-based service (LBS) provider about approximate k nearest points of interest (POIs) on the basis of his current location. All in all, the portable client needs to present his area to the LBS provider which then find out and comes back to the client the k closest POIs by looking at the distance between the versatile client's area and POIs close-by. This reveals the mobile users location to the LBS provider. In proposed system use Distribution Management. This management is useful for delivery by it contain planning, direction, and control of personal selling including recruiting,selecting,equipping,assigning,routing,supervising,payingandmotivating as these tasks apply to personal sales force. The objectives of sales management are Smart Delivery Application for Delivery Boy by Using K Nearest Neighbour and Haversine.

Keywords: k nearest neighbour, Location-Based service, GPS

I.INTRODUCTION

Delivery is the process of transporting goods from a source location to a predefined destination. There are different delivery types. Cargo (physical goods) is primarily delivered via roads and railroads on land, shipping lanes on the sea and airline networks in the air. There are many ways to deliver different goods; certain specialized goods may be delivered via other networks, such as pipelines for fluid goods, power grids for

electrical power and computer networks such as the Internet or broadcast networks for electronic information. The general process of delivering goods is known as distribution. The investigation of effective processes for delivery and disposition of goods and personnel is called logistics. Firms that specialize in delivering commercial goods from point of production or storage to point of sale are generally known as distributors, while delivery services are those that specialize in the delivery of goods to the consumer. Postal, courier, and relocation services these are the different way to deliver goods.

II.LITERATURE SURVEY

Paper 1:

Title: Personalized Promotion Tracking: A Location Based Approach for Merchandizing Industry using Haversine Formula

Author: Arup Kumar Bhattacharjee, Soumen Mukherjee, Manas Ghosh, Sudipta Patra

Year: 2014

Description: The proposed application is client-server application where the mobile clients get its geographical location through gps and sent it to main server along with queries. When a query arrives main server executes the query in main memory and check if the mobile is in any store's defined geographical area and according to that offers will be provided to the mobile. If the customer availed the desired offer, then it will update main database. The location of mobile client is continuously changing and because of that tracing the location of a mobile client involves high cost as continuous re-computations is required. So the technique of store's geographical area calculation is used. When the customers remain inside a geographical area, the results of those queries will remain unchanged, so re-evaluation is not needed unless it leaves a particular defined geographical area.

Paper 2

Title: Mobile Tracking Application for Locating Friends using LBS

Author: Abhijeet Tekawade, Ahemad Tutake, Ravindra Shinde, Pranay Dhole, Mr. Sumit Hirve

Year: 2013

Description: To provide information to users based on their location use Location-based services (LBS) applications are a growing business. Consumers are being offered a range of new location-based services from social networking to navigation to banking. But every time a consumer uses one of these services, there is a risk that the company offering the service may be collecting and retaining detailed records of who she is, where she goes, and what she does. Once collected, outdated privacy laws and varying corporate practices can leave this sensitive information vulnerable to access by the government and third parties. Location based services are used more frequently by the mobile users. A location based service is a location provider that is used to track the location of any mobile node through the mobile network that includes vehicular tracking system called fleet net.

In mobile communication the tracking of location plays a major role using this LBS services. By using nearest base station available to the mobile network and GPS Global Positioning System for tracking location

In order to track the location of the user's mobile device. The GPS satellite is used for navigation purpose and it is combined with LBS is used to track the location of mobile device and the actual work of GPS that is used to calculate position by using latitude and longitude value which is receive by GPS receiver. In general this GPS works in open space areas only and used for radio navigation purpose through radio signals the GPS is a small device that can be embedded in any devices like mobiles.

Paper 3

Title :k-Nearest Neighbor Classification over Semantically Secure Encrypted Relational Data

Author:Bharath K. Samanthula, Yousef Elmehdwi and Wei Jiang

Year: 2014

Description: In banking, medicine, scientific research and among government agencies Data Mining has wide applications. Classification is one of the commonly used tasks in data mining applications. For the past decade, due to the rise of various privacy issues, many theoretical and practical solutions to the classification problem have been proposed under different security models. However, with the recent popularity of cloud computing, users now have the opportunity to outsource their data, in encrypted form, as well as the data mining tasks to the cloud. Since the data on the cloud is in encrypted form, existing privacy preserving classification techniques are not applicable. Proposed system mainly focuses on solving the classification problem over encrypted data. Here propose a secure k-NN classier over encrypted data in the cloud user's input query, and data access patterns and for protects the confidentiality of the data. In this first to develop a secure k-NN classifier over encrypted data under the standard semi-honest model. Also empirically analyze the efficiency of solution through various experiments.

Paper 4

Title: Privacy-Preserving and Content-Protecting Location Based Queries

Author: Russell Paulet, Md. Golam Kaosar, Xun Yi, and Elisa Bertino, Fellow, IEEE

Year: 2014

Description: Proposed system provides a solution to one of the location-based query problems. This problem is defined as follows: (i) a user wants to query a database of location data, known as Points Of Interest (POIs), and due to privacy concerns he does not want to uncover his/her location to the server; (ii) the owner of the location data, that is, the location server, does not want to simply distribute its data to all users. The location server desires to have some control over its data, since the data is its asset. Major enhancement over existing system by introducing a two stage approach, where the first step is based on Oblivious Transfer and the second step is based on Private Information Retrieval, to achieve a secure solution for both parties. The solution we present is efficient and practical in many scenarios. We implement our solution on a desktop machine and a mobile device

to assess the efficiency of our protocol. We also introduce a security model and analyse the security in the context of our protocol. Finally, we highlight a security weakness of existing system and give a solution to overcome it.

Paper 5

Title: Practical Approximate k nearest Neighbour Queries with Location and Query Privacy

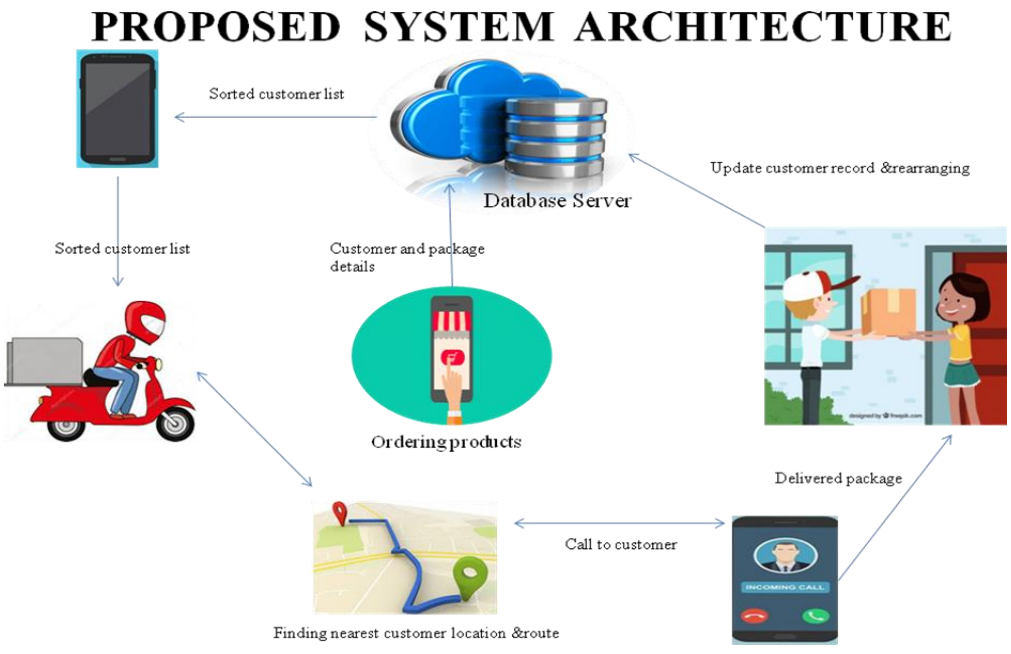
Author: Sun Yi, Russell Paulette, Elisa Bertino,Vijay Varadharajan

Year: 2016

Description: The location of a query may reveal sensitive information about the mobile user.

In proposed system k nearest algorithm use to find nearest destination on the basis of user current location. In propose system a basic solution and a generic solution for the mobile user to preserve his location and query privacy in approximate kNN queries. Proposed system mainly built on the paillier public-key cryptosystem and can be provide both location and query privacy. To preserve query privacy, our basic solution allows the mobile user to retrieve one type of POIs, for example, approximate k nearest car parks, without revealing to the LBS provider what type of points is retrieved. Proposed system can be applied to multiple discrete type attributes of private location-based queries. Compared with existing solutions for kNN queries with location privacy, proposed system is more efficient.

III.ARCHITECTURE



IV.ALGORITHMS TO BE USED

1) Sorting:-

Sorting customer list as per address (area vise with sub area)

2) KNN

Finding nearest location as per customer sorting list.

3) Haversine :-

The haversine formula determines the great-circle distance between two points on a sphere given their longitudes and latitudes. (Route)

V.CONCLUSION

In this paper we have studied location based services and their real time applications as well as knn algorithm in brief. This is our effort to develop an application by using knn algorithm and GPS which will be useful for delivery boys in order to make their job easier and more efficient which is not provided by any current system. Our future work is to develop an application for android mobile system.

VI.ACKNOWLEDGEMENT

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[2.] Mobile Tracking Application for Locating Friends using LBS in 2013 by Abhijeet Tekawade, Ahemad Tutake, Ravindra Shinde, Pranay Dhole, Mr. Sumit Hirve

[3.] k-Nearest Neighbor Classification over Semantically Secure Encrypted Relational Data in 2014 By Bharath K. Samanthula, Yousef Elmehdwi and Wei Jiang

[4.] Privacy-Preserving and Content-Protecting Location Based Queries in 2014

[5.] By Russell Paulet, Md. Golam Kaosar, Xun Yi, and Elisa Bertino, Fellow, IEEE

[6.] Practical Approximate k Nearest Neighbour Queries with Location and Query Privacy in 2016 By Xun Yi, Russell Paulet, Elisa Bertino, Vijay Varadharajan