Shop and Historical Place Locator Application inVicinity with Geofencing Technology

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Abstract—**The 21st century has witnessed tremendous growth inonline shopping; however, it doesn't mean that customers have switched completely from offline to online shopping. Both waysof shopping have their own merits & demerits. In online shopping, hidden terms & conditions were the major problems faced by customers followed by an insufficient description. It has been concluded that there is a significant difference betweenproblems faced by consumers during online & offline shopping.Despite the increasing number of online users and products thatare being offered on the web, the most common problem faced by customers in online shopping is that there is rejected guarantee of a product's quality, there are a lot of problems faced by consumers in online shopping such as fake products, hidden costs, etc. In offline shopping is issues with where can customer find product. Its reach is limited. It all depends on your marketing budget. If you have a limited budget, it will be hard for you to target areas outside your neighborhood. Shop Locator Application in Vicinity with Geofencing Technology is an application where you can search a particular product in order to purchase it offline by eliminating some major drawbacks of online shopping such as security issues, lack of quality assurance, delay in delivery, undesired product delivery,etc. In this application, the customer can input his desiredproduct and services in the search bar with merely a single clickthe customer will be provided with a list of places near his/her location where he can find the product. He can select the appropriate option and contact the shop owner if he pleases or simply depart, leave to shop personally and purchase the product with the request of address and direction provided by the shop locator application in the vicinity with geofencing technology. This will reduce the time wasted in searching for theproduct manually by visiting.**

Keywords—KNN, Geofencing, API

I. INTRODUCTION

In this article, we provide the location based services to the user. The service is provides as per client requirement using the to-do-list when user ask for it. This application is dealing with the geo-notification based services and it is reliable to provide the location based information to the user, which willhelp to identify that the client enter or leave the Dedicated zone. the technology behind providing location based servicesis called as Geofencing. This paper present new way of monitoring the user's location in the environment. here the mobile phone's are considered as client's, they are responsible to locate itself. the service offers a discount and the probability of the service selected by user would significantly improved which lead to changes of the service status. this article introduce the new way of Location Specific information with the sentiment analysis. Sentiment analysis is nothing but the collecting the reviews of the clients this will help to analyze the services based on the user's reviews.

II. MOTIVATION

One can always be aware of the offers, discount and deals that are live on the online ecommerce sites and as much as you are willing to buy any product the limitations of the offline shopping will restrict you from pressing that "buy Now"button on the screen. However, this is the case for online platforms but what about the shops near you? There is no platform yet build which will update you on the most recent and interesting offers available near your vicinity and keep you updated to save on a lot of money. At the same time a lotof time people who desire to buy a specific product usually search for it online, however, the options provided are e- commerce sites but sadly there isn't any option that can helpto purchase the product offline in the nearby shop eliminatingmajor drawbacks of e-commerce.

III. OBJECTIVE

It will provide an option to the users to purchase their

desiredproduct in their vicinity along with details of the shop and directions.

1. Offer - This application will notify the user about various offers and deals that is available in the shops in the user's vicinity at any moment by detecting the user's locationusing geofencing technology.

2. Search - for the desired product in the vicinity: Here the user can search for the desired product and can have information about what are the various shops in the user's vicinity that deals with and sells the product and how they canget to shop, live direction with the help of google maps.

3. Recommendation - This application will recommend the user about different products related to their search based ontheir previous search history.

IV. DRAWBACK OF ONLINE SHOPPING

There are various reasons people often do not choose various online shopping. Below are the reasons why:

1.Frauds in online shopping

2. Delay in the delivery

3. You can't touch the product

4. You cannot bargain

5. Hidden costs and shipping charge
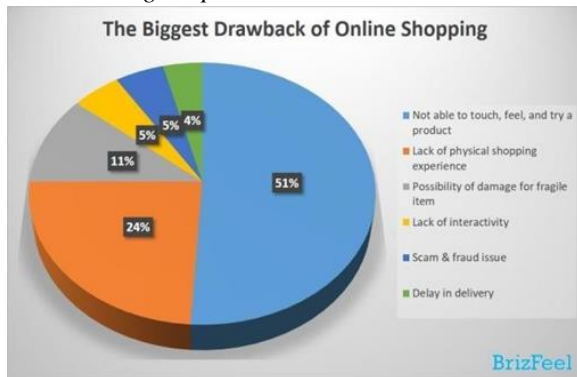
6. Lack of interaction

7. Returning the product

Fig. 1. Biggest Drawbacks of Online Shopping.

V.WHY PEOPLES ARE PREFFERING OFFLINE SHOPPING

As offline shopping has advantages like the opportunity to physically choose and inspect what an item or thing is like, would look like, and its attributes. This is why some people still prefer conventional buying over internet purchasing since, for one thing, it allows them to thoroughly inspect an item. In today's world e-commerce is a popular location where buyers and sellers do not interact, resulting in a lack of product awareness. Despite the fact that the consumer visits the onlinebuying site, he or she does not exhibit any interest in acquiringthe product. Among the causes include a lack of trust, a loss of tactile touch and feel, security concerns, and so on. One ofthe major advantages of offline shopping is that you do not have to wait for the services or items that you purchase. Because you purchase it straight from the seller, your servicesor items are immediately available to you. There is no need towait for the delivery of your purchased services and items. Because you can hold the things in your hands immediately while buying offline, you can inspect the quality immediatelyand provide feedback at the time of purchase. Hence in our application we are attempting to provide a alternative for theuser to be able to search the product they wish to acquire andin the result they will view the shops in their vicinity who deals the product. Here they will also have the feature to check thedistance that shop is located and what is the direction to get tothe shop made available via google maps.

Sr.	Name	Author	Year	Description
1.	Integration of Online and OfflineChannels inRetail: The Impact of Sharing Reliable Inventory Availability Information	Santiago Gallino Antonio Moreno	June: 2014	Using a proprietary data set, we analyze the impact of the implementationof a "buy-online, pick-up-in-store" (BOPS) project.
2.	Evolution of Online shopping in India & its Unparallel Growth	Dr. Sunil Patel Associate Professor	3, April: 2015	Indian retail industry is growing at a good pace andthat too online shopping which has started since last decade hastaken up a good pace.
3.	The Feasibility of Hyperlocal Strategy in Indian E-Commerce	Nivedita Debnath, Yashomandira Kharde	18, Nov 2020	To contact more clients inlevel 2 and level 3 urban communities, retailers are endeavoring totry into the circle of e-retailing to exploit the

				computerized retail channels (online business).
4.	Book Recommen dation System throughcontent basedand collaborative filtering method	Praveena Mathew; Bincy Kuriakose; Vinayak Hegde	12 Dec 2016	Recommenda tion system is one of the strongest toolsto increase profits and retaining buyer. The existing systems lead toextraction of irrelevant information and lead to lack of user satisfaction.

VI.LITERATURE REVIEW

For this project we read a lot of research papers and articles toget the clear idea about the projects, which technologies require to complete this project. Here we have also research about what are the existing system work, advantages and disadvantages of the existing system and what our applicationcan do to overcome the existing problem to make the more natural and user-friendly interface for the user. we found some information about existing system and some research that alsodone in it so I mention some of them below.

VII.PROBLEM STATEMENT

For the users who are unaware of the availability of a certaindesired product or clueless whether where in their vicinity will they find the product? we have to give an alternative to theseusers to be able to search on their mobile phones for details of the shops that sell the product and the location along with directions to the shop. they should also be able to be updatedwith the most recent offers and deals that are live in the user's vicinity. the user should also get recommendations for their searched products like that else they can buy alongside the searched product and what other people have preferred.

VIII.PROPOSED SOLUTION

Off-shop gives a list of shops where customer's searched product is available nearby them. Shops list

will be displayed with location, direction to shop, opening and closing timing,contact information and all the information related to the shop.Also, customers can find ongoing offers available on productsin nearby shops as in online shopping there is offers just the same feature is available in this application. Additionally, recommendation system will help consumers to find better choices of product. This application will be helpful for the shopkeepers to promote their shop.

IX.SYSTEM INPLEMENTATION DOCUMENTATION

1).   Overview of Project Module – The primary goal of this project is to provide recommendations to the user. This project use machine learning along with its libraries. With the help ofgeofencing technology offers locating nearby shop can be obtain present in between the range.
  2). API's and Technology –
Geofencing Technology: A geofence is a virtual boundary around a real-world geographic area. The use of a geofence iscalled geofencing.one example of use involves a location- aware device such as a smartphone user entering or exiting ageofence, triggering an alert to the device's user.
Google Android Geo API: The Geolocation API returns a location and accuracy radius based on information about celltowers and Wi-Fi nodes that the mobile client can detect. Thisdocument describes the protocol used to send this data to theserver and to return a response to the client. Communication is done over HTTPS using POST. Both request and response are formatted as JSON, and the content type of both isapplication/json.

X.ALGORITHM DETAILS

KNN Algorithm- k-NN is a machine learning algorithm to find clusters of similar users based on common book ratings,and make predictions using the average rating of top-k nearest neighbors. It stores all the available data and classifiesa new data point based on the similarity. This means when new data appears then it can be easily classified into a well suite category by using K- NN algorithm. It also measures distance to determine the "closeness" of instances. It is implemented on the user ratings collection to detect the nextnearest ratings in the product specified.
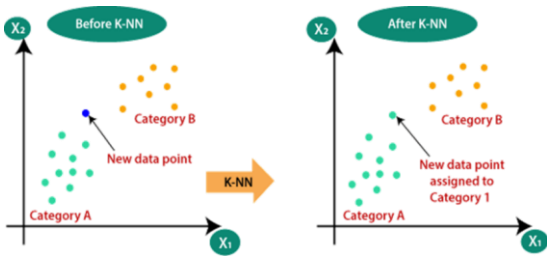
Fig. 2. K-NN Architecture

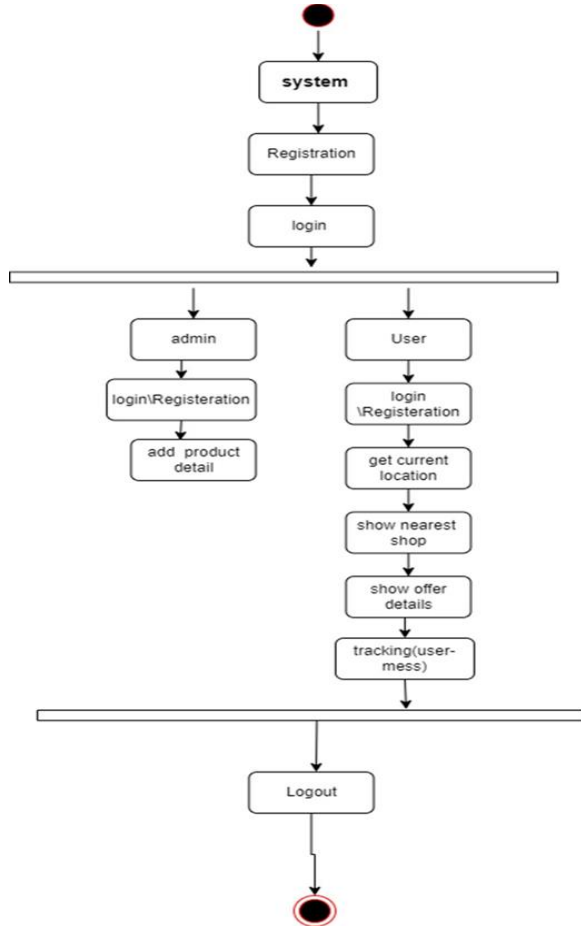## XI.PROPOSED SYSTEM ARCHITECTURE

Fig. 3. System Architecture

XII.CONCLUSION

People prefer to purchase things online however it is seen that sometimes the quality expected from the products are not upto the mark as well as the product can be duplicated or something else hence this creates problem and doubt in the minds of people about whether to purchase online or not. There are some specific products that people prefer to purchase offline however they don't assist, obtain the shops where they can assist, obtain easily find the product therefore in order to solve this problem, we have created a shop locatormobile application in the vicinity with geofencing technologywhich will provide a list of shops near you where you can find those products easily.

It will provide the shopkeepers the more exposure to customers and can request them to create their inventory and request them to keep the track of product availability. It can also request the customer to find the products, its cost also thepurchase will be immediate thus buyers can verify the products on the spot which will nullify the defectiveness of the product.

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