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# Online Recommendation of Electronic Goods

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**Abstract -** *Recommending Systems are new generation dynamic internet tools that help user for efficient product search via Information on the internet and receive information related to their priorities. The system will have product information from local market. All product related data will be stored with it. Depending upon customers, GPS location recommendations will be given to him using android app. Also the recommendations will be formed on the basis of reviews of product. And while giving recommendation to customer, his budget will be considered. Hence we will be developing a system to give recommendation about electronics product from local market.*

***Keywords***: Recommendation, electronic goods, customer, evaluation

## 1.INTRODUCTION

We are going to develop a system to give recommendation about electronics product from local market in form of notifications. Recommending Systems are new generation dynamic internet tools that help user for efficient product search via Information on the internet and receive information related to their preferences. The suggested procedure recommends the semantic products to the customers and is originally based on semantic analysis and product classification. The system will have product information from local market. All product related data will be stored with it. Relying upon customers, Global Positioning System location recommendations will be given to the user using android application. Also the recommendations will be formed on the basis of reviews of product. And while giving recommendation to customer, his budget will be considered. Hence we will be developing a system to give recommendation about electronics product from local market.

### 1.1 Purpose

The main motto of this system is to maintain all related information about the goods which is recommended by the online system. This system is gets recommendation of all searched product which is searched by the Android user. System gives the review on any product. To need a decreased the overload of the product, shopkeeper, related websites. We introduce a semantic recommendation procedure which is more efficient.

### 1.2 Scope

The system will have product information from local market. All product related data will be stored with it. Depending upon customers GPS location recommendations will be given to him using GSM. Also the recommendations will be formed on the base of reviews of product and while giving recommendation to customer his salary will be considered. This system gives a proper desired output to the customer according to the searched product.it will consider all the circumstances which is related to the product, person, review and salary. The main objective of this system is to provide a feasibility to the customer.

## 2. Literature Survey

**"Toward the next generation of recommender systems: A survey of the state-of the-art and possible extensions"**

The Principal elements include modelling of web objects, categorization of the web objects, matching between and across object and set of the action to be recommended for determination of the objects for personalization[3].

**"Recommender Lab: A Framework for Developing and Testing Recommendation Algorithms"**

Firstly choose Ontology language for product classification and proposed an Online Recommendation System using LCS Algorithm [4].

**"Amazon recommendations: Itemto- item collaborative filtering"**

The algorithm aggregates items from these similar customers, eliminates items the user has already purchased or rated, and recommends the remaining items to the user. Two popular versions of these algorithms are collaborative filtering and cluster models[5].

**"A Localization Strategy Based on N-times Trilateral Centroid with Weight"**

Localization based on received signal strength indication (RSSI) is a low cost and low complexity technology, and it is widely applied in distance-based localization of wireless sensor networks (WSNs). Error of existed localization technologies is significant [6].

## 3. Overall description

The previous recommendation system or online shopping portals and is not feasible to show the location based electronic product which has higher recommendation or

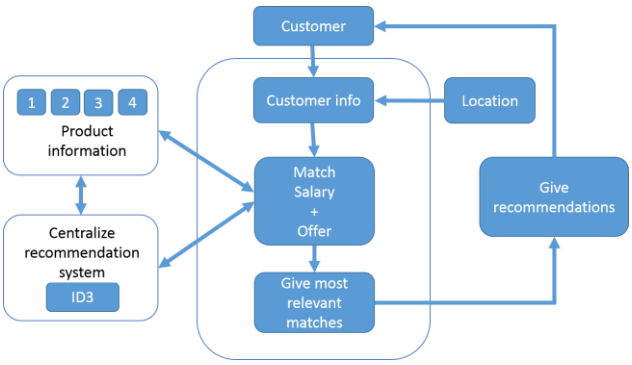
the higher review. Those system are not able to send the information of the product which is nearby available and also affordable according to the salary.

But this system removes the drawback with a semantic recommendation procedure for electronic product. The principal elements include modelling of web objects, categorization of the web objects, matching between and across object and determination of the set of the action to be recommended for personalization. Firstly choose ontology language for product classification and proposed an Online recommendation system using LCS Algorithm. The architecture consisted of online and offline phase. The accuracy of prediction is 73%. Semantic information for WUM based recommendation. They have used spade algorithm to generate frequent access sequences. Spade Algorithm is a sequential association rule mining algorithm.

### 3.1 Product function

- **Admin Module:**
  - No registration for admin by default user role is 1
  - Admin can register/add shop, edit and delete shop.
- **Shop Module:**
  - Shop has by default role 2
  - Shop log in to user id and password, registered by admin.
  - Add product, edit and delete product.
- **Customer Module:**
  - Customer has by default role 3, -first customer registers and then logs in, - and first time sees all products.
  - Search based on products category like mobile, laptop, etc. and also product range (for ex-mobile range 10000 to 20000).
  - Also search on brand name or product name (ex- dell, hp, etc).
  - Customer history stored on database, based on their search.
  - Also give comments to particular product and apply sentiment analysis based on “positive”, “negative” and “neutral”.
  - When they again log in then based on their last search recommend all products based on comment rating given to them.
- **Android Part:**
  - User register and then Log in.
  - User is shown category and user selects category, then product is shown with shop Location, then user marks product for buying.
  - Location Reminder is given when user enters the particular area, then automatically gets notifications on user’s phone.

### 3.2 Architecture design




## 4. Trilateral Algorithm

Trilateration is an ideal model. The three circles intersect at a point when there is no error of the measured distances between nodes and this point is the location of the mobile node. However, in actual situation the error of the measured RSSI is existent. The three circles won’t intersect at a point because of the measured error, but usually they intersect at a region. Taking the centroid of the region as the location of mobile node is the idea of trilateral centroid algorithm. NTCWLA is an expansion of trilateral centroid algorithm. First we select n (n≥3) reliable beacon nodes from all beacon nodes, then we calculate the distances between reliable beacon nodes and mobile node with Formula (3). Next we combine any three of the n reliable beacon nodes to calculate the location of mobile node with the trilateral centroid algorithm and this algorithm is executed N ( 3 N C= n ) times. After that we get N1 ( N1 ≤N) reference coordinates of mobile node and use the weighted average of the N1 reference coordinates to filter out the reference coordinates which have large deviation with it. For example, the value of deviation is more than 20cm.

## 5. User Characteristics

- User needs to fill the Shop details.
- User can add Product details.
- User can add its details.
- User merge product category.
- The system shows Searched product.
- Recommend product based on their previous history.
- Notification is received by customer on mobile when they are coming to that area.

### 5.1 ADVANTAGES

1. Increase efficiency.

2. Fast access

3. Able to see needed goods only.

4. find location based products

## 6. CONCLUSIONS

Recommendation System are new generation internet utility that help users in searching through data on the internet and receive information related to their choices.
A semantic recommendation procedure has been introduced to overcome the product overload of internet shoppers which is more efficient.
Using this application we get the product information and also give the notification to the customer through Global System for Mobile Monitoring.
This system will be used in local market for electronic product recommendation for users.

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