

User Choice based Recommendation System using WiFi/Android System

Mr. Akshay Kotian¹ Mr. Indresh Rawat² Mr. Chaitanya Amin³ Mr Lalit Babar⁴ Mrs. Ekta Sarda⁵

^{1,2,3,4}Student ⁵Assistant Professor

^{1,2,3,4,5}Department of Computer Engineering

^{1,2,3,4,5}Ramrao Adik Institute of Technology, India

Abstract— User choice Based Recommendation on Live Discount Using Wi-Fi/Android System present a system that can be used with any current mobile phone system to provide location based information/advertisements to any mobile phone, equipped with Wi-Fi technology. Our project is a website that gives you advertisements based on the user's current location. The project is very suitable for entertainment plazas, theatres, shopping malls. The entire experience can be made more dynamic and personal using this architecture. A person entering inside the premises can view this data using Wi-Fi. Shopping malls can use this technique to provide information about offers in the respective stores.

Key words: Wi-Fi Technology, User Choice based Recommendation System

I. INTRODUCTION

The e-commerce segment represents more than 50% of mobile ad spends in India, according to research data by Opera Mediaworks' Endlaw. With users spending more time on their mobile phones, companies such as FlipKart and Myntra (also owned by FlipKart) are recognizing that the reach is wider for consumers by going mobile-only as a medium of purchase. Gaining momentum on the back of growth in m-commerce, a recent study by Deloitte India Technology predicts that the mobile advertising spends would account for 15-20% of the overall media expenditure.

Entertainment plazas like movie theatres can use this technique to provide information on forthcoming movies as well as current running ones. After reading the research paper of online recommendation system of San Jose State University, we thought of using content based system for providing filters like particular item the user wants, the range of the price and types of discount.

II. CONCEPTS

Mobile advertising is the way through which the products or services are sent to mobile device and smartphone consumers. The mobile advertising system is the future of advertisement business. Mobile advertising is an integral part of mobile marketing. Mobile creatives will no longer be the banner ads that we are used to. You will be able to experience how the old style of advertisement is being taken over with interactive content. Mobile landing pages will move from plain old URLs, to deep links within apps or to app intents.

III. LITERATURE SURVEY

The development of recommendation system was found due to the vast amount of data available on the internet. A recommendation system has been implemented based on hybrid approach of collaborative filtering engine and context based engine. By making use of user cluster the speed of the system is highly improved. In context based engine we are utilizing the keyword which were provided by the user from

feedback. For future predictions we are using further enhancements like past history of users.

The modern business environment has a new phenomenon which is called online shopping. Firms have opportunity over each other due to the evolution of online shopping which has put them on advantage. Due to the consumer's online shopping behaviors and preferences we are using this study. This study is based on the concept of the online shopping. In internet shopping there is a higher chance of privacy and security risk. Online shopping can affect the consumer attitude because of shopping convenience, immediate possession, information seeking and variety. Online shopping have uncertainties due to the misuse of personal data, impossibility of product testing, product return and problems with complaint. Due to the convenience of the online shopping it has become regular part of our lives. Every day, millions of people go online to do research about products and make purchases from thousands of different online merchants. Because of the online shopping the person can locate products and compare shops for best deals

IV. PROPOSED SYSTEM

Techniques that have on the content have a natural limit on the number and type of related functions, whether automatic or manual, with the objects they recommend. The domain knowledge is often necessary, for example the recommendations of films, the system must know the actors and directors, and sometimes, domain ontologies are also needed. Based on the content, there is no inherent method to find something unexpected. The system suggests items whose values are high when they match the user profile from which the user article is recommended, similar to the one already evaluated. A proper ratings should be collected before a referral system based on the content can really understand user settings and specific recommendations. Therefore, if few evaluations are available, as a new user, the system will not be able to provide reliable recommendations.

A. Proposed Methodologies

The content based engine makes use of contextual information provided by the user, synonyms, meta data about the products to find recommended items.

B. Item Representation

Items that can be recommended to the user are represented by a set of features, also called attributes or properties. For example, in a movie recommendation application, features adopted to describe a movie are: actors, directors, genres, subject matter. When each item is described by the same set of attributes, and there is a known set of values the attributes may take, the item is represented by means of structured data. In this case, many ML algorithms can be used to learn a user profile.

The problem is that traditional keyword-based profiles are unable to capture the semantics of user interests because they are primarily driven by a string matching operation. If a string, or some morphological variant, is found in both the profile and the document, a match is made and the document is considered as relevant.

String matching suffers from problems of:

- Polysemy, the presence of multiple meanings for one word;
- Synonymy, multiple words with the same meaning.

The result is that, due to synonymy, relevant information can be missed if the profile does not contain the exact keywords in the documents while, due to polysemy, wrong documents could be deemed relevant.

Semantic analysis and its integration in personalization models is one of the most innovative and interesting approaches proposed in literature to solve those problems. The key idea is the adoption of knowledge bases, such as lexicons or ontologies, for annotating items and representing profiles in order to obtain a “semantic” interpretation of the user information needs. In the next section, the basic keyword-based approach for document representation will be described, followed by a review of “traditional” systems relying on that model.

V. OVERALL SYSTEM ARCHITECTURE

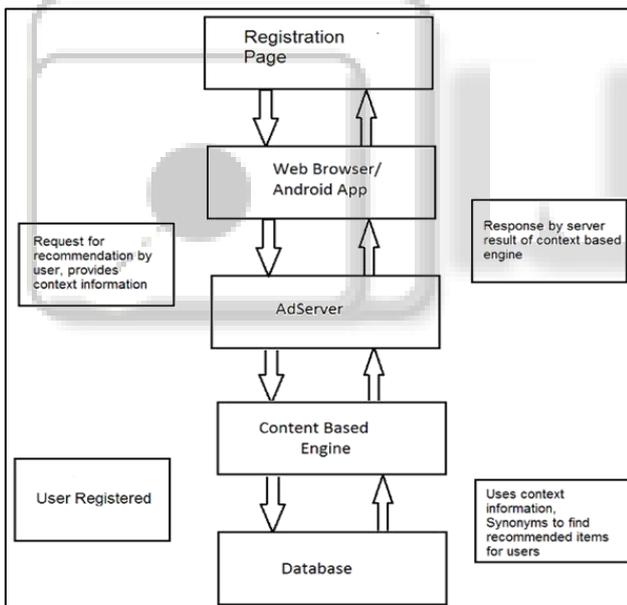


Fig. 1: System Architecture

A. Description

This is the block diagram of User Choice Based Recommendation on Live Discount Using Wifi/Android System. The registration page is provided to user. In the registration page user had given a choice where he can choose its preferred item. User registered and chooses its recommended item and it is stored in the database.

- User logs into the system using ‘userid’.
- Web Browser/Android App request for recommendation by user, provides context information.
- The context based engine makes use of the context information, and Synonym Finder to make predictions.
- Server responses with the result of the context based engine.

B. Use Case Diagram

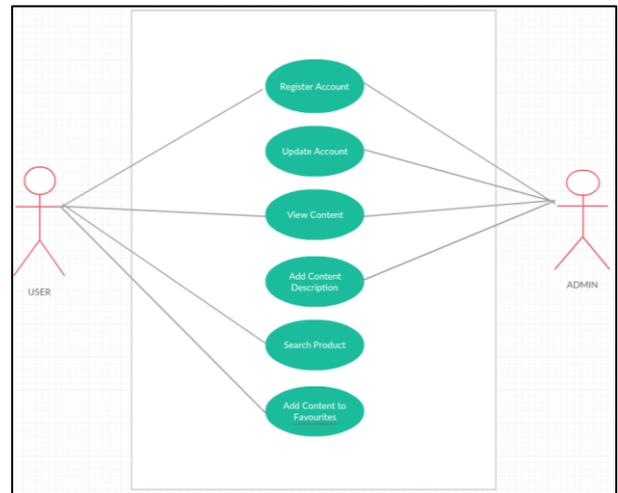


Fig. 2: Use Case Diagram

Here the actors are the user and the admin. Each use case comes with the description, actors, pre/post conditions and the flow of control. Here the admin is the one that maintains the application.

- 1) Coming to the conditions on the use cases, the implicit one is that the user must be logged into the system to access recommendations.
- 2) Admin can update the account which the user is logged on to.
- 3) The user will be able to view the content based on the filter he will select.
- 4) Admin will update the content and also add the description based on the product.
- 5) User will be able to search and filter the product based on the users choices.
- 6) User will filter the content and will add different product based on the preferences and also user will be able to add the product to favourites.

C. Data Flow Diagram

1) Level 0

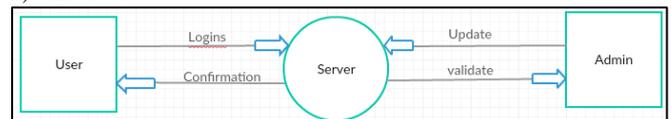


Fig. 3: DFD Level 0

In the DFD Level 0, we have two entity User and Admin, and a process called server. The user logs in the system and passes it details to the server. Then the content is validated from the admin then the server gives confirmation to user. The admin updates the server.

2) Level 1

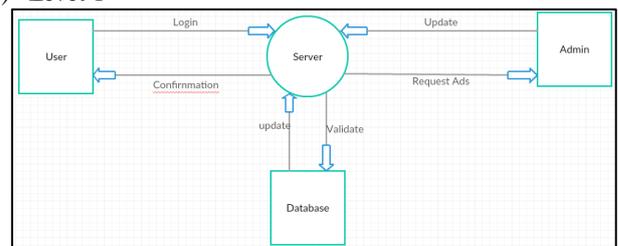


Fig. 4: DFD Level 1

In the DFD Level 1, we have three entity User, Database and Admin, and a process called server. The user logs in the system and passes it details to the server. Then the content is

validated from the database then the server gives confirmation to user. The server request ads from the admin, the admin updates the server and database also updates the server.

VI. IMPLEMENTATION

The project objective was achieved with the desired result. The prime objective of this project was to send ads to the user on webpage and android system using user choice recommendation system.

A. Registration Page



Fig. 5: Registration Page

B. List of Products

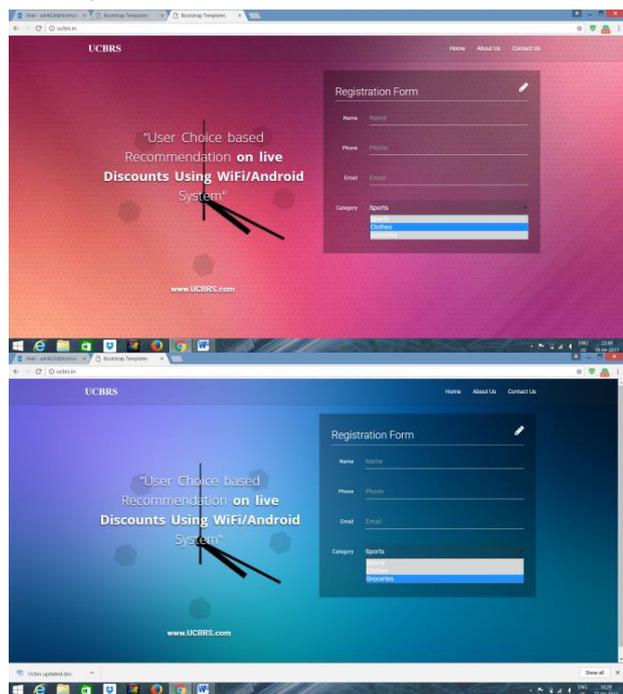


Fig. 6: List of Products

C. Sample Advertisements



Fig. 7: Sample Advertisements

VII. CONCLUSION & FUTURE SCOPE

The shopping mall is one of the most attractive places for buying items, especially for modern day users as it provides variety of products. When the user enters the premises, the user wants to know what offers are placed in the stores. Our system will try to overcome the loopholes of the previous systems and should come up with an accurate and user friendly application which is also time efficient. The system recommends an offer to a user based upon a description of the item and a profile of the user's interests.

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