BMS COLLEGE OF ENGINEERING, BANGALORE-19
(Autonomous Institute, Affiliated to VTU)
Department of Computer Applications

VI semester project work Synopsis

1.Project title: E-Commerce using collaborative filtering(ERP)

The title itself explains a lot about the project. "**E-commerce using collaborative filtering**" is basically a web-based platform is to provide a best way of searching of items in a e commerce site. It is a ERP system for xyz company which has various types of goods and they need every thing to be automated and customized to reduce the human work and need to expand their business to the internet. Other sub-objective is to make a survey and collect data how people think of using new e commerce and its uses. That helps the Researchers, Government for the study of human nature and behavior in various ways.

2. Domain or Area: Web based application

3. Project Type: Application

4. Description of project

E-commerce using collaborative filtering" is a web-based application which helps the shopkeeper to expand his business to the internet. It is a ERP system for xyz company which has various types of goods and they need every thing to be automated and customized to reduce the human work and need to expand their business to the internet. Other sub-objective is to make a survey and collect data how people think of using new e commerce and its uses. That helps the Researchers, Government for the study of human nature and behaviour in various ways.

This company had a e-commerce website previously which not included any prediction technique and filtering. We are trying to improve(Totally full new design)UI and with collaborative filtering.

Made an option to admin that if any product which not been seen or searched by the users those products create an notification to admin and admin finally remove those items which will makes an simple and effective e commerce deign and it also helps the user to search the items very effectively and easy. This feature helps in predicting the what products user usually search.

Collaborative filtering (CF):

Collaborative Filtering is a technique used by some recommender systems. E-Commerce Collaborative filtering is a method of making automatic predictions (filtering) about the interests of a user by collecting preferences or taste information from many users (collaborating). A recommender system refers to a system that is capable of predicting the future preference of a set of items for a user, and recommend the top items.

1. **Upload products**
   Uploading the products is done by admin. Authorized person is uploading the new arrivals to system that are listed to users. Product can be uploaded with its attributes such as brand, color, and all other details of warranty. The uploaded products are able to block or unblock by users.
2. **Product review based order**
   The suggestion to user's view of products is listed based on the review by user and rating to particular item. Naïve bayes algorithm is used in this project to develop the whether the sentiment of given review is positive or negative. Based on the output of algorithm suggestion to users is given. The algorithm is applied and lists the products in user side based on the positive and negative.
3. **Recommendation system**
   A recommender system or a recommendation system (sometimes replacing "system" with a synonym such as platform or engine) is a subclass of information filtering system that seeks to predict the "rating" or "preference" a user would give to an item. Overall, since the testing set covers seven days, the recommender system is unable to capture the latest happenings for users and hence the accuracy tends to be lower than predicting in the single day manner. On one hand, from the experimental results we can see that introducing serendipity does influence the accuracy.
4. **Data analysis**
   The main part of the project is to analysis the ratings and reviews that are given by the user. The products can be analysis based Recommendation system. The user data analysis of the data can be done by charts format. The graphs may vary like pie chart, bar chart or some other charts.

5. **Technologies used:** Python

6. Hardware/Software Requirements

Hardware specifications

- Processor : Intel Core i3
- Processor speed : 1.8 GHz
- RAM : 2 - 4 GB
- Hard Disk Capacity : 250 GB-500GB

Software specifications

- Operating System : Windows 7 and above
- Technology : Python
- Web Technologies : Html 5, JavaScript, CSS
- IDE : PYCharm
- Database : MySql

7. Organization Details

Address: Landmark: Varier Bakery, #1138,20th Main Road 53rd Cross WOC Road, 5th Block, Rajaji Nagar, Bengaluru, Karnataka 560010

URL: https:// www.vmdtechnologies.com

8. External Guide

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Signature **HOD**