IDEATION PHASE

DATE	**2nd September**
TEAM ID	**PNT2022TMID25979**
PROJECT NAME	**LITERATURE SURVEY**

CASE STUDY 1

TITLE: Building an e-commerce recommendation system by using Big Query Machine Learning

AUTHOR: Farah Tawfiq Abdul Hussain, Abdul Monem S. Rahma

RELEASED DATE: 2021

PROJECT DESCRIPTION:

The technological development in the devices and services provided via the Internet and the availability of modern devices and their advanced applications, for most people, have led to an increase in the expansion and a trend towards electronic commerce. The large number and variety of goods offered on e-commerce websites sometimes make the customers feel overwhelmed and sometimes make it difficult to find the right product. These factors increase the amount of competition between global commercial sites, which increases the need to work efficiently to increase financial profits. The recommendation systems aim to improve the e-commerce systems performance by facilitating the customers to find the appropriate products according to their preferences. There are lots of recommendation system algorithms that are implemented for this purpose. However, most of these algorithms suffer from several problems, including: cold start, sparsity of user-item matrix, scalability, and changes in user interest. This paper aims to develop a recommendation system to solve the problems mentioned before and to achieve high realistic prediction results this is done by building the system based on the customers' behavior and cooperating with the statistical analysis to support decision making, to be employed on an e-commerce site and increasing its performance. The project contribution can be shown by the experimental results using precision, recall, F-function, mean absolute error (MAE), and root mean square error (RMSE) metrics, which are used to evaluate system performance.

CASE STUDY 2

TITLE: Predicting Customer Lifetime Value with AIP Platform on cloud-based e-commerce website or web application

AUTHOR: Ziv Pollak

RELEASED DATE: 2021

PROJECT DESCRIPTION

Predicting customer future purchases and lifetime value is a key metrics for managing marketing campaigns and optimizing marketing spend. This task is specifically challenging when the relationships between the customer and the firm are of a noncontractual nature and therefore the future purchases need to be predicted based mostly on historical purchases. This work compares two approaches to predict customer future purchases, first using a "buy till-you-die" statistical model to predict customer behavior and later using a neural network on the same dataset and comparing the results. This comparison will lead to both

quantitative and qualitative analysis of those two methods as well as recommendation on how to proceed in different cases and opportunities for future research.

CASE STUDY 3

TITLE: A Case Study on Recommendation Systems Based on Big Data

AUTHOR: M. Sandeep Kumar and J. Prabhu

RELEASED DATE: 2021

PROJECT DESCRIPTION

Recommender systems mainly utilize for finding and recover contents from large datasets, it has been determining and analysis based on the scenario—Big Data. In this paper, we describe the process of recommendation system using big data with a clear explanation in representing the operation of MapReduce. We demonstrate the various stage of recommendation namely data collection rating, types of filtering. Analysis Scenario based drug recommender system, it consists of three components namely drug storage, cloud server, and recommender server. The system is evaluating with specific parameters like F-score, Precision, and recall. Finally, we describe the challenge of recommendation systems like data sparsity, cold start, sentimental analysis and No surprise.