 **RADHAKRISHNA INSTITUTE OF TECHNOLOGY AND ENGINEERING (RITE )**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**SOFTWARE PROJECT ABSTRACT**

Project title : Predictive Model on Market basket Analysis

Abstract :

This study aims to develop a predictive model for estimating the sales of items in retail outlets based on various attributes provided in a dataset. The dataset contains information about different items sold in multiple outlets, including item identifiers, weights, fat content, visibility, types, maximum retail prices (MRP), outlet identifiers, establishment years of outlets, outlet sizes, outlet location types, outlet types, and sales figures.

The predictive model will utilize machine learning techniques to analyze the relationship between the attributes and item sales. Specifically, the model will employ regression analysis to predict the sales of items based on their characteristics and the attributes of the outlets where they are sold.

Key steps in developing the predictive model will include data preprocessing, feature selection, model training, model evaluation, and fine-tuning. Various regression algorithms, such as linear regression, decision tree regression, and random forest regression, will be considered and compared to determine the most suitable model for accurately predicting item sales.

The predictive model aims to assist retailers and stakeholders in understanding the factors influencing item sales and making informed decisions regarding inventory management, pricing strategies, and outlet optimization. By accurately forecasting item sales, retailers can optimize their operations, improve customer satisfaction, and maximize profitability.

Overall, the development of an effective predictive model will contribute to enhancing retail analytics and decision-making processes in the dynamic and competitive retail industry.

Semester : 8th( CSE )

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