## Artificial Intelligence and

## Machine Learning

Project Report

Semester-IV (Batch-2022)

Big Mart Sales Prediction

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# Abstract

Title: Big Mart Sales Prediction

Abstract:

This ML project is dedicated to forecasting sales for Big Mart, utilizing advanced machine learning techniques. By harnessing historical sales data and pertinent store attributes such as location, promotions, and product visibility, the project aims to construct robust predictive models. These models are designed to accurately predict future sales trends, empowering Big Mart to optimize inventory management strategies and refine marketing campaigns for enhanced profitability.

The project encompasses the exploration and implementation of various machine learning algorithms, ranging from traditional regression models to more complex ensemble methods and deep learning architectures. Through thorough experimentation and model refinement, the objective is to develop a reliable sales prediction system capable of capturing the intricate relationships between different variables and providing actionable insights for decision-makers at Big Mart.

Ultimately, the success of this project lies in its potential to revolutionize how Big Mart approaches sales forecasting, driving operational efficiency and maximizing revenue. By leveraging the power of machine learning, Big Mart can make data-driven decisions that optimize inventory levels, minimize stockouts, and ultimately enhance customer satisfaction. This project serves as a testament to the transformative impact of AI and ML technologies in the realm of retail analytics, paving the way for smarter, more agile businesses in the competitive landscape of modern retail.