

Project Summary

The random and disorganized display of goods presents significant challenges for both customers and business owners. Customers face difficulties in efficiently locating products, leading to frustration and a suboptimal shopping experience. This inefficient product discovery not only reduces customer satisfaction but also negatively impacts demand, resulting in lower sales for business owners. Our project aims to resolve these issues by implementing strategic product placement and dynamic pricing.

To achieve this, we employ dynamic pricing algorithms and market basket analysis to optimize both product placement and pricing strategies. Machine learning models and data analytics are utilized to predict customer behavior and enhance overall satisfaction and operational efficiency. Through these advanced technologies, we aim to improve the e-commerce experience, increasing both customer satisfaction and business profitability.

- **Optimized Product Placement Strategies:**
 - Develop and implement advanced product placement strategies to improve the organization and display of goods within the online store.
 - Utilize insights from market basket analysis to determine which products are frequently purchased together and strategically place them to facilitate easier product discovery.
- **Dynamic Pricing System:**
 - Enhance customer navigation by organizing products in a logical and intuitive manner, thereby reducing the time and effort required for customers to find the items they need.
 - Utilize data analytics to predict optimal pricing points that maximize profitability while maintaining competitive pricing.
 - Improve the overall shopping experience for customers by making it easier to locate and purchase desired products.
 - Increase customer satisfaction and loyalty through personalized recommendations and optimized product placement.