Project Overview

This project aims to optimize menu offerings by analysing customer preferences and seasonal trends in food consumption. By leveraging data analytics and customer feedback, the project provides actionable insights for restaurants and food service businesses to enhance customer satisfaction and increase profitability.

Problem Statement

The food industry faces the challenge of adapting to rapidly changing customer preferences and seasonal shifts in demand. To remain competitive, businesses must understand which menu items are favoured by different customer segments and how these preferences change throughout the year. This project seeks to identify key factors influencing food choices and recommend strategies for dynamic menu optimization.

Solution Approach

* Data Collection: Gathered data from customer reviews, sales records, and seasonal consumption patterns.
* Preference Analysis: Used statistical and machine learning models to identify the most influential factors in customer satisfaction, including price, quality of service, branding, and specific dietary requirements (e.g., Halal).
* Seasonal Trends: Analysed historical sales and external data (e.g., social media trends) to detect patterns in food demand across different times of the year.
* Menu Optimization: Developed recommendations for menu adjustments based on customer segments, preferences, and predicted seasonal trends.

Key Findings

* Five primary dimensions drive customer preference: Halal compliance, price, quality of service, branding, and tangible attributes (e.g., presentation, environment).
* Data analytics enables precise segmentation of customers based on demographics, psychographics, and purchase history, allowing for tailored menu offerings.
* Predictive models can forecast shifts in demand, helping businesses proactively adapt menus to upcoming trends and seasons.
* Customer reviews and ratings highlight the importance of environment, food variety, and convenience in influencing dining choices.