

Model Development Phase Template

Date	15 July 2024
Team ID	739910
Project Title	Forecasting Feasts: A culinary journey into restaurant revenue prediction
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
Date	The specific day of the sales data.	Yes	Critical for time series analysis and identifying patterns over time.
Sales amount	The total revenue generated on a specific day.	Yes	Directly related to the target variable for prediction
Number of Transactions	The number of sales transactions on a specific day.	Yes	Provides insight into customer traffic and average transaction value.
Marketing Expenditure	The amount spent on marketing activities for a specific period.	Yes	Helps in assessing the impact of marketing campaigns on revenue.
Customer Demographics	Information on customer age, gender, income, and location.	Yes	Understanding customer demographics helps tailor marketing strategies and predict spending behavior.
Local Events	Details of local events such as festivals, concerts, and holidays.	Yes	Local events can significantly impact customer turnout and sales.

Day of the Week	The specific day of the week (e.g., Monday, Tuesday).	Yes	Different days may show varying sales patterns due to customer habits.
Season	The season during which the sales data was collected (e.g., summer, winter).	Yes	Seasonal trends can affect customer behavior and sales.
Weather Conditions	Weather data on specific days (e.g., temperature, precipitation).	Yes	Weather can influence customer turnout, especially for restaurants with outdoor seating.
Economic Indicators	Data on economic factors such as inflation rates and consumer confidence indices.	Yes	Economic conditions can impact discretionary spending and restaurant revenues.
Menu Changes	Information on any changes or special promotions in the menu.	Yes	Changes in the menu can attract different customer segments and affect sales.
Competitor Data	Information on the performance and marketing activities of competitors.	No	While useful, this data may not always be readily available and can be difficult to integrate.
Online Reviews	Customer reviews and ratings from online platforms.	No	Although impactful, this data can be noisy and subjective.
Staffing Levels	Number of staff working on specific days.	No	Staffing levels are more relevant for operational efficiency than for revenue prediction.
Kitchen Capacity	Information on kitchen workload and capacity.	No	This is more related to operational efficiency than directly predicting revenue.