***REQUIREMENTS DOC***

**RESTAURANT CUSTOMER SATISFACTION**

**Objective**

* Understand Customer Preferences and Behavior:
* Identify Popular Dishes and Services: Determine which menu items or services are most liked by customers.
* Analyze Dining Patterns: Understand peak dining times, frequency of visits, and common customer demographics.

**Problems Identified**

**Limited Menu Options:** Lack of variety or options for specific dietary needs (e.g., vegetarian, gluten-free).

**Slow Service:** Long wait times for seating, order taking, or food delivery.

**Inadequate Loyalty Programs:** Ineffective loyalty programs that do not incentivize repeat visits.

**Target Audience**

* Primary – Restaurant Management and Owners
* Secondary – Customer Experience Teams

**Use Cases**

User story;

**Menu Optimization: I want to be able to identify** popular and unpopular dishes to refine the menu. For instance, remove items that consistently receive low ratings and introduce new dishes that align with customer preferences.

Acceptance criteria;

Identify Popular Dishes**:**

Selects dishes with an average rating above 4.0 and orders in the top 20%.

Identify Unpopular Dishes:

Selects dishes with an average rating below 3.0 and orders in the bottom 20%.

Determine Overall Customer Preferences:

Provides insights into the most liked ingredients or flavors based on positive reviews

User story;

**Peak Time Management: Able to** analyze dining patterns to identify peak times and adjust staffing levels accordingly to ensure efficient service and reduce wait times.

Acceptance criteria;

Identify Peak Times:

Selects the busiest time intervals by counting the number of customer visits per hour.

Identify Peak Days:

Selects the busiest days of the week by counting the number of customer visits per day

Determine Average Customer Volume:

Calculates the average number of customer visits per hour over a specified period

Analyze Wait Times During Peak Hours:

Calculates the average wait time for customers during peak hours.

**Success Criteria**

Restaurant Management and Owners can;

* Improve in customer satisfaction metrics following the implementation of recommendations derived from the analysis.
* Achieve operational improvements, such as reduced wait times or optimized staffing, based on insights from the dataset.
* Identify the main factors driving customer satisfaction and dissatisfaction, such as specific menu items, service quality, or ambiance.
* Identify and calculate key metrics such as average ratings, frequency of visits, and distribution of ratings across different criteria (e.g., food, service, and ambiance).
* Produce comprehensive reports that summarize the analysis, insights, recommendations, and business impact.

**Information Needed**

Restaurant Management and Owners needs;

* Visit details
* Customer demographics
* Menu and ordering data
* Operational data

**Data Needed**

* Tools and storage
* Performance metrics
* Historical data
* Menu and ordering data

**Data Quality Checks**

We need to add measures in place to confirm the dataset contains the data required without any issues – here are some of the data quality checks we need to conduct:

* Row count check
* Column count check
* Data type check
* Duplicate check