**Restaurant Rating Prediction**

**Introduction:**

**This report enables prediction of restaurant scores based on various characteristics such as location, food, value system environment and service. The information under review includes detailed information about various restaurants, including name, location, food, average price per person, and overall rating.**

**Problem Statement:**

**In the competitive restaurant industry, maintaining a high score is critical to attracting and retaining customers. But customers often face the challenge of assessing a restaurant's quality before visiting. That's why it's important to develop a model to predict restaurant ratings, help customers make decisions, and help restaurant owners identify areas for improvement.**

**Methodology:**

**Dataset Discussion:**

**The dataset collects useful data on a variety of restaurants, reveals factors that influence restaurant ratings, and provides a framework for predictive modeling in the field of restaurant forecasting.**

Restaurant ID: A unique identifier for each restaurant.

Restaurant Name: The name of the restaurant.

Country Code: The country where the restaurant is located.

City: The city where the restaurant is located.

Address: The full address of the restaurant.

Locality: The specific location or area of the city where the restaurant is located.

Location Verbose: A more detailed description of the restaurant's location.

Longitude: The longitude coordinate of the restaurant's location.

Latitude: The centerline of the restaurant's location.

Cuisine: Types of food in restaurants.

Average Cost for two: The price of a meal for two at an average restaurant.

Currency: The currency used for the price (e.g. Botswana Pula).

Has Table Booking: Show whether the restaurant offers table reservations (yes/no).

HasOnlineDelivery: Indicate whether the restaurant offers online delivery (yes/no).

Is delivery Now: Show whether the restaurant delivers food (yes/no).

Switch to order menu: Show whether there is a switch menu (yes/no).

Price Range: Numerical indicator of a restaurant's price range.

Aggregate rating: The overall rating of the restaurant, possibly based on customer reviews.

Rating Color: The color code represents the rating (e.g. dark green).

Rating text: Descriptive text representing the rating (e.g. excellent).

Votes: Total number of votes or comments.

**Main results:**

**The final result of this project is the development of a robust learning model that can be used to predict restaurant ratings based on many features. The model is an important tool for customers to make informed dining choices and allows restaurant owners to improve their service to achieve high scores.**

**Project timeline:**

**Data collection and preprocessing: 2 weeks**

**Data visualization and exploratory data analysis: 1 week**

**Machine learning model development: 3 weeks**

**Model Training and performance evaluation: 2 weeks**

**Writing and implementation: 1 week**

**Results:**

**In short, this project is about the importance of predictive models in the catering industry and provides a method to predict restaurant insights and provide information to business partners Decision with actionable intelligence to support retrieval. Through qualitative data analysis and machine learning techniques, this effort has created a strong foundation for predicting restaurant ratings, which promises to transform food consumption for customers and restaurants alike.**