ABSTRACT

Predict Restaurant Rating Using Machine Learning

Opening a new restaurant has become increasingly challenging, especially in recent times due to intense competition and a wide range of choices available to consumers.

This project aims to help new restaurant ventures succeed by predicting restaurant ratings using key controllable factors. By applying and comparing multiple regression models — including Random Forest, Linear Regression, XGBoost, and AdaBoost — the project identifies the most reliable method for rating prediction. The model assists restaurant owners in making informed decisions, reducing risks, and saving time before launching a new restaurant.

The dataset contains restaurant details such as online ordering availability, table booking option, rating, location, cuisines, approximate cost, and more. These features are used to train the regression models, focusing on factors that can be controlled prior to setting up a new restaurant.

Dataset Link: https://www.kaggle.com/datasets/pranavuikey/zomato-eda/data

Technology Stack:

Frontend: HTML, CSS, JavaScript

Backend: Flask

Machine Learning Libraries: Matplotlib, Seaborn, Scikit-learn, Pandas, NumPy

Tools: Google Collab and Visual Studio Code

References:

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