WireFrame

Restaurant Rate Prediction
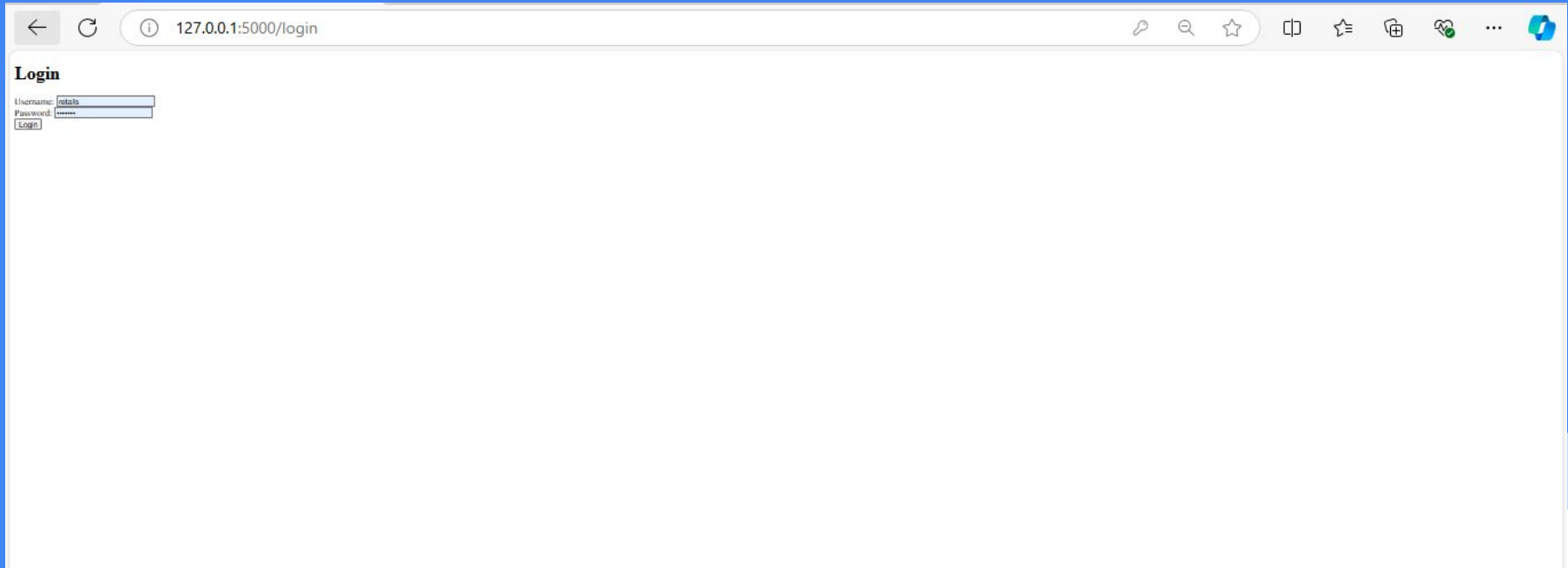
By Ravi Kumar M

Content

1. Login Page
2. Home Page
3. Predcuited Page
4. About Page
5. Result page

Abstract

- **This document outlines the wireframe design for a restaurant rating prediction web application. The application enables users to predict restaurant ratings based on various features and provides an intuitive interface for interaction. The wireframes detail the layout and components of essential pages, including the login page, home page, prediction form, about page, and results page, ensuring a user-friendly experience that facilitates seamless navigation and efficient data input.**

Login Page

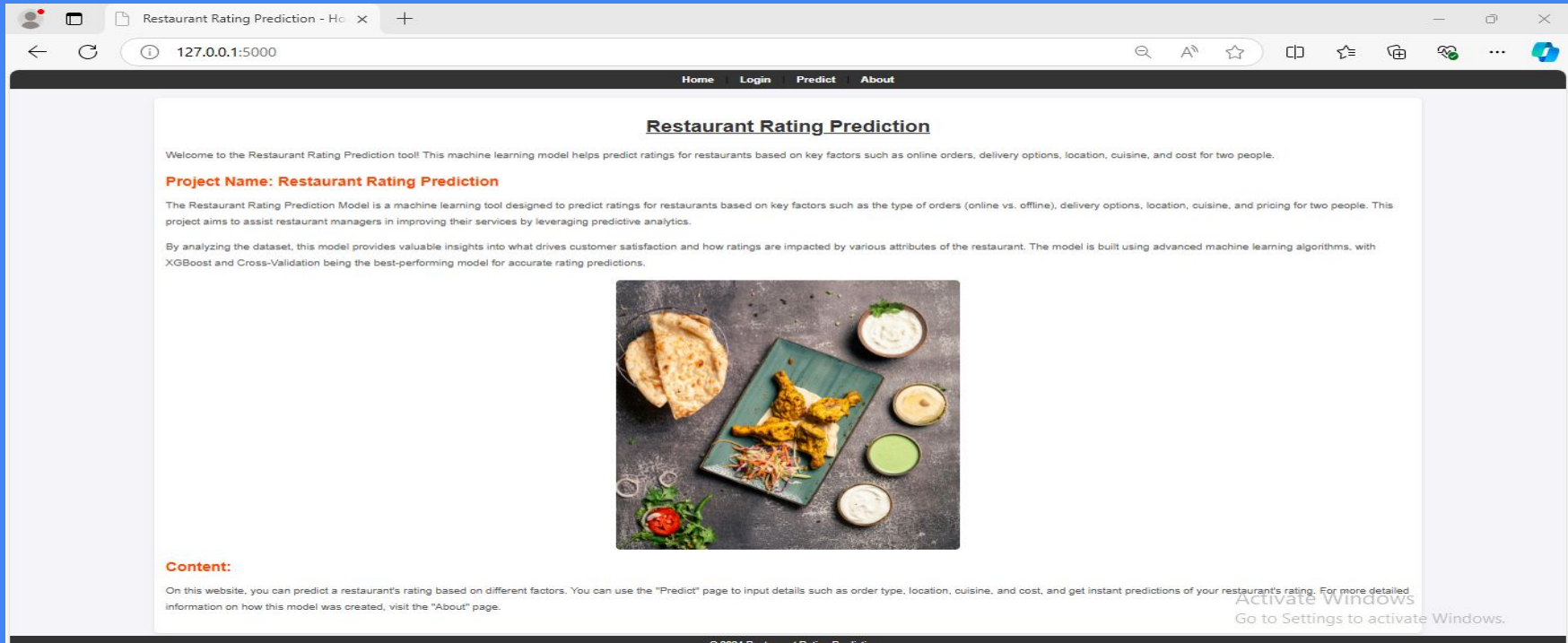- **A simple and secure interface where users can enter their credentials to access the system.**

Home Page

- **The main dashboard featuring navigation links to prediction and about pages, providing a clear entry point for users.**

Predicted Page

- A form where users can input features related to the restaurant and initiate the prediction process.
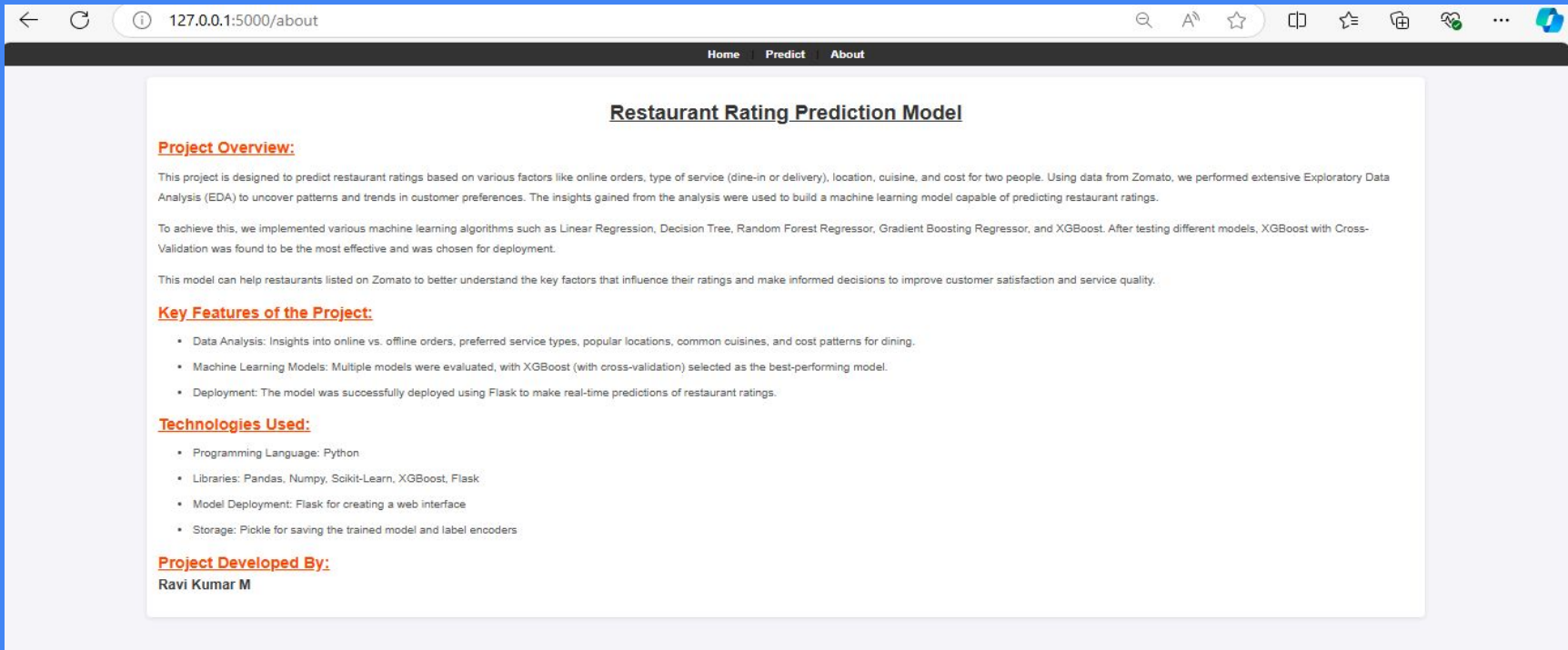
About Page

- **Information about the project, its objectives, and the technology stack used in the development of the application.**

Restaurant Rating Prediction Model

Project Overview:

This project is designed to predict restaurant ratings based on various factors like online orders, type of service (dine-in or delivery), location, cuisine, and cost for two people. Using data from Zomato, we performed extensive Exploratory Data Analysis (EDA) to uncover patterns and trends in customer preferences. The insights gained from the analysis were used to build a machine learning model capable of predicting restaurant ratings.

To achieve this, we implemented various machine learning algorithms such as Linear Regression, Decision Tree, Random Forest Regressor, Gradient Boosting Regressor, and XGBoost. After testing different models, XGBoost with Cross-Validation was found to be the most effective and was chosen for deployment.

This model can help restaurants listed on Zomato to better understand the key factors that influence their ratings and make informed decisions to improve customer satisfaction and service quality.

Key Features of the Project:

- Data Analysis: Insights into online vs. offline orders, preferred service types, popular locations, common cuisines, and cost patterns for dining.
- Machine Learning Models: Multiple models were evaluated, with XGBoost (with cross-validation) selected as the best-performing model.
- Deployment: The model was successfully deployed using Flask to make real-time predictions of restaurant ratings.

Technologies Used:

- Programming Language: Python
- Libraries: Pandas, Numpy, Scikit-Learn, XGBoost, Flask
- Model Deployment: Flask for creating a web interface
- Storage: Pickle for saving the trained model and label encoders

Project Developed By:
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Result Page

- **Displays the prediction results based on the input features, providing insights into the expected restaurant rating.**

Thank You