Report: Restaurant Reservation Management System

Introduction:

The Restaurant Reservation Management System is a console-based Python application designed to facilitate the management of reservations and dining preferences for a restaurant. This report provides an overview of the code structure, functionality, and usage instructions for the application.

Code Overview

The application consists of a single Python script (restaurantDatabase.py) that interacts with a MySQL database to perform CRUD (Create, Read, Update, Delete) operations on reservations and dining preferences. The code is organized into a RestaurantDatabase class, which encapsulates database operations, and a main function that implements the console-based user interface.

Functionality

Adding Reservations: Users can add new reservations by providing details such as customer name, reservation time, number of guests, and special requests. The application checks if the customer already exists in the database and adds them if necessary before creating the reservation record.

Updating Reservations: Existing reservations can be updated by specifying the reservation ID and providing updated special requests. The application updates the corresponding record in the database with the new information.

Deleting Reservations: Users can delete reservations by specifying the reservation ID. The application removes the corresponding record from the database.

Adding Dining Preferences: Users can add dining preferences for customers, including their favorite table and dietary restrictions. The application checks if the customer exists and adds them if necessary before creating the dining preference record.

Code Demonstration:

To demonstrate the functionality of the application, follow these steps:

Run the restaurantDatabase.py script in a Python environment.

Follow the prompts to perform various operations, such as adding, updating, or deleting reservations, and adding dining preferences.
The application will interact with the MySQL database to execute the requested operations and provide feedback on the outcomes.

Conclusion

The Restaurant Reservation Management System provides a simple yet effective way to manage reservations and dining preferences for a restaurant. The Python application leverages MySQL as the backend database and offers a user-friendly console interface for interacting with the system.

For further improvements, enhancements such as error handling, input validation, and additional features like searching reservations or generating reports could be considered.