**Report**

**Introduction**

The restaurant management system is a web-based application designed to facilitate restaurant operations such as reservation management, processing customer information, and updating restaurant preferences This report presents the system's design, operation, and codebase overview for.

**Code Explanation:**

The RestaurantServer.py script acts as the main server-side component that manages communication between customers and the restaurant management system. It listens to HTTP requests and routes them to the appropriate destinations for processing. For example, if a customer wants to add a new reservation or update an existing one, they send a POST request to the corresponding endpoint such as /addReservation or /updateReservations . The server analyzes the incoming data, communicates with the MySQL database using methods from the RestaurantDatabase class, and returns the appropriate response. The RestaurantDatabase.py file contains the logic to connect to the MySQL database. It defines a class called RestaurantDatabase, which initially establishes a connection to the database. This class provides methods for performing tasks such as adding, canceling a reservation, adding a customer, searching for a reservation for a specific customer, and enabling existing reservations new for.

**restaurantDatabase.py:**

This file contains the database interaction logic using MySQL.

* **Database Connection (RestaurantDatabase class):**
  + Initializes a connection to the MySQL database using provided credentials.
* **Database Operations:**
  + **addReservation**: Inserts a new reservation into the **Reservations** table.
  + **getAllReservations**: Retrieves all reservations from the **Reservations** table.
  + **cancelReservation**: Removes a reservation from the **Reservations** table.
  + **addCustomer**: Adds a new customer to the **Customers** table.
  + **findReservations**: Retrieves all reservations for a specific customer.
  + **updateReservation**: Updates an existing reservation in the **Reservations** table.

**Conclusion:**

A restaurant management system provides a robust platform from which restaurant operations can be effectively managed. Future improvements could include user authentication, improved error handling, and user-friendly interfaces.