Booking-System-Implementation-for-Little-Lemon

1. Create Database and Schema

MySQL Workbench

- Design your database schema with at least tables like `Bookings`, `Customers`, `Tables`, etc., ensuring there are appropriate relationships defined (e.g., foreign keys).
- Export the schema as an SQL file (e.g., `little_lemon_db_schema.sql`).

Example of a Simple SQL Command to Create a Bookings Table:

```sql
CREATE TABLE Bookings (
    BookingID INT AUTO_INCREMENT PRIMARY KEY,
    CustomerID INT,
    TableNumber INT,
    BookingDate DATE,
    BookingTime TIME,
    NumberOfGuests INT,
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID),
    FOREIGN KEY (TableNumber) REFERENCES Tables(TableNumber)
);
```

2. Connect to Database Using Python Client

Python Script (`db_connection.py`):

```python
import mysql.connector
from mysql.connector import Error

def create_server_connection(host_name, user_name, user_password, db_name):
    connection = None
    try:
        connection = mysql.connector.connect(
            host=host_name,
```

```
            user=user_name,
            passwd=user_password,
            database=db_name
        )
        print("MySQL Database connection successful")
    except Error as err:
        print(f"Error: '{err}'")

    return connection

# Replace with your MySQL server details
connection = create_server_connection("localhost", "username", "password",
"little_lemon_db")
```

Implement similar functions for `get_max_quantity()`, `manage_booking()`, `update_booking()`, and `cancel_booking()` based on your specific requirements.

4. Connect to Database Using Tableau

- In Tableau, choose 'Connect to Data', select 'MySQL', and input your database connection details.

5. Generate Data Reports in Tableau

- Create visualizations and dashboards reflecting booking trends, customer patterns, table occupancy, etc.
- Save the workbook as `little_lemon_dashboard.twb`.