Queries Specification Document

1. Reservation Status Update

- **Query**: Update the status of reservations to 'confirmed' upon successful payment.
- **Purpose**: Maintain accurate booking records and prevent double bookings by confirming reservations after successful payments.

2. Revenue Calculation

- **Query**: Calculate total revenue generated by room bookings in a specific month.
- **Purpose**: Track revenue streams, assess business performance, and guide strategic decision-making and financial planning.

3. Top-Rated Hotels

- **Query**: Retrieve a list of hotels sorted by average user ratings.
- **Purpose**: Identify hotels with the highest customer satisfaction ratings, aiding informed booking decisions and allowing hotel managers to highlight their best-performing properties.

4. Room type preferences

- **Query**: Analyze booking patterns to identify the most popular room types among guests.
- **Purpose**: Optimize room inventory and pricing strategies to meet customer demand by understanding room type preferences.

5. Users who have made the most reservations

- **Query:** Sort in descending order the user_id of guest with the most made reservations.
- **Purpose:** To help identify who makes reservations through our system most frequently.

6. The correlation between room price and customer ratings

- **Query:** Returns the average price of a stay at the hotel and its' rating.
- **Purpose:** This helps the hotel management assess how room pricing correlates with guest satisfaction as reflected in the hotel ratings.

7. The Number of Reservations for Each Season

- **Query:** Categorizes all reservations into four distinct seasons based on their check-in dates.
- **Purpose:** It provides insights into seasonal trends in bookings, enabling hotel management to better understand demand fluctuations throughout the year.

8. List of Hotels by Room Price

- **Query**: Retrieve a list of hotels sorted by their most expensive/cheapest room.
- **Purpose**: Allow users to view the most expensive/cheapest hotel rooms, aiding in decision-making and potentially influencing travel choices.

9. Average Length of Stay Calculation

- **Query**: Calculate the average length of stay for guests across different room categories.
- **Purpose**: This data assists hotels in operational planning, such as scheduling maintenance and managing room availability effectively.

10. The cheapest hotel room price per night in each country

- **Query:** Find the cheapest room price in each country.
- **Purpose:** To help potential guests and travel agents quickly identify the most affordable option in each country, which can aid in decision-making for travelers looking to minimize their expenses.