

### Scenario 7: Event Management System Requirements:

An event management company needs a database system to handle event planning, client interactions, and resource management. The system should store details about events, including event name, date, location, type (e.g., wedding, conference, party), and client information. Client profiles should include personal details, contact information, and event preferences. The system should track interactions with clients, including consultations, contracts signed, and feedback received. Resource management involves scheduling and allocating resources such as venues, equipment, and staff for events. The company wants to monitor resource availability, generate booking schedules, and manage vendor relationships. Additionally, the system should handle financial aspects like invoicing, payments, and expense tracking. The ability to generate reports on event performance, client satisfaction, and resource utilization is also essential.

#### Questions:

1. Find the event that generated the highest revenue.

```
`SELECT EventID, SUM(Amount) AS TotalRevenue FROM Financials GROUP BY EventID ORDER BY TotalRevenue DESC LIMIT 1;`
```

2. Calculate the average number of attendees per event type.

```
`SELECT ET.TypeName, AVG(AttendeeCount) AS AverageAttendees FROM (SELECT E.TypeID, COUNT(A.AttendeeID) AS AttendeeCount FROM Events E JOIN Attendees A ON E.EventID = A.EventID GROUP BY E.EventID) AS EventAttendeeCounts JOIN EventTypes ET ON EventAttendeeCounts.TypeID = ET.TypeID GROUP BY ET.TypeName;`
```

3. Retrieve the minimum number of staff required for any event.

```
`SELECT MIN(StaffRequirements) AS MinStaffRequired FROM Resources WHERE Type = 'staff';`
```

4. Find the client who has hosted the most events.

```
`SELECT C.ClientID, C.Name, COUNT(E.EventID) AS EventCount FROM Clients C JOIN Events E ON C.ClientID = E.ClientID GROUP BY C.ClientID, C.Name ORDER BY EventCount DESC LIMIT 1;`
```

5. List the top 5 most booked venues.

```
`SELECT ResourceID, COUNT(*) AS BookingCount FROM Bookings WHERE ResourceID IN (SELECT ResourceID FROM Resources WHERE Type = 'venue') GROUP BY ResourceID ORDER BY BookingCount DESC LIMIT 5;`
```