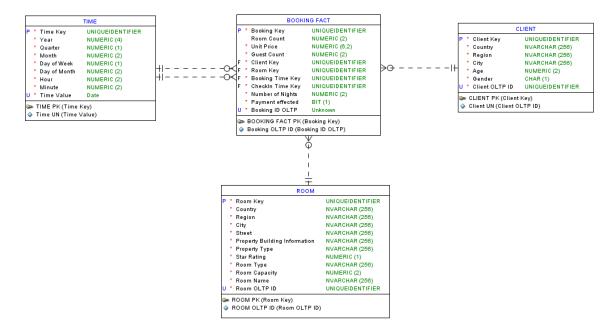
Worksheet 8 – OLAP Cube Revision

In this revision worksheet you are to consider the *Booking OLTP ERD* which is based in a room booking system.

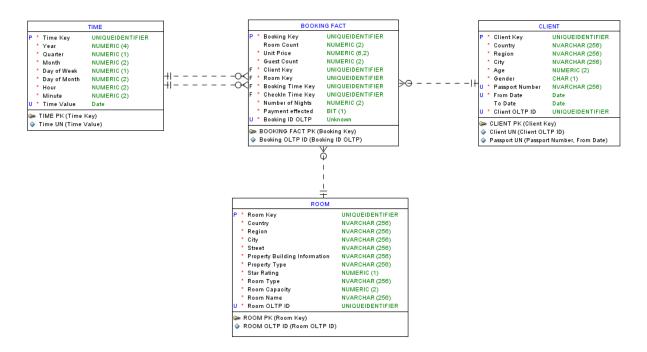
The OLTP database keeps record of all accommodation such as Hotels, Hostels, Guest Houses, Apartments and other accommodations around the globe. The address of these accommodations includes information related to city, region and country. For each property a list of room types and their respective count within that property is registered – 5 single rooms, 2 double rooms, 5 deluxe presidential suites, etc. The different seasons (Christmas period, Easter period, Summer period, etc.) determine the price of the accommodation. For a booking to occur, the client is to have an account. The database allows a person to write a review for completed bookings so that successive clients can take better decisions. The different accommodations can win awards throughout the years such as Best Hotel 2020 ranking #2, Best Location 2020 ranking #1, etc.

Given this Booking OLTP ERD, you are to perform the below tasks:

1. Design an OLAP cube for room bookings using the star schema. In your design you are to handle include different dates such as *booking date* and *check-in date*. Any other date attributes might be also include.

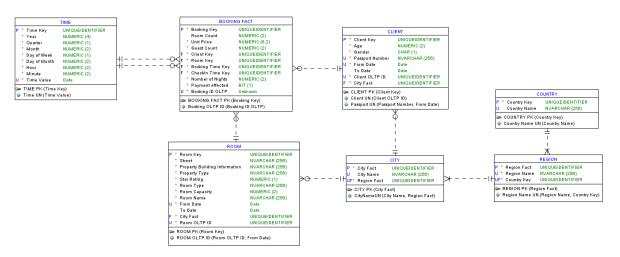


2. If you have not done so already, identify a slowly changing dimension and revise your star schema



Note: In this example we have added the SCD to the Client dimension

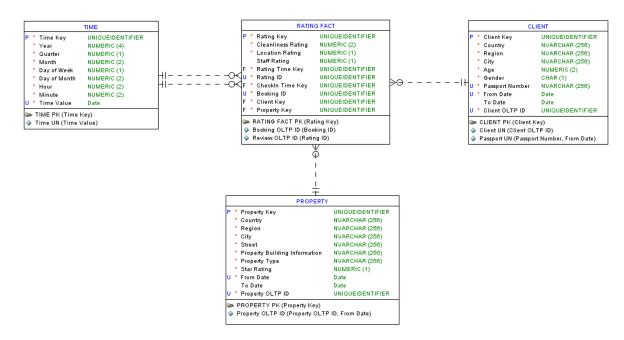
3. Modify the previous cube such that you now use the snowflake schema



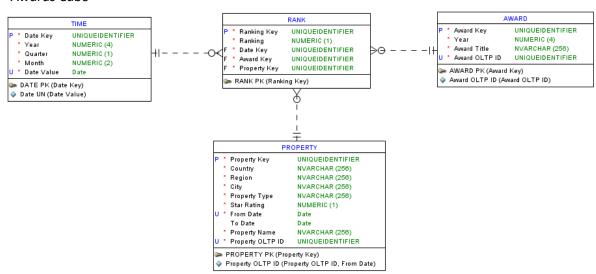
Note: In this example we added the SCD to the Room dimension and included the City, Region and Country dimensions

4. Design two more OLAP cubes using star schema for reviews and awards

Reviews Cube



Awards Cube



5. Design a multi-fact cube about reviews gathered from external sources

