Tourism Management System

**Group Number: 7**

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**Project Scope, Description and Queries Requirements**

**Scope of Database:**

* A Trip/Tourism management website needs to manage all its users, hotels and restaurants, tour guides and tour packages efficiently. Our task is to create a database where all the data regarding users, guides, hotels, tour packages can be stored and retrieved.
* The website only allows user to book packages and hotels. The mode of transport such as Flights/Trains won’t be included.
* Following are the database description/requirements:

**Description/Requirements:**

1. **Users** will have Aadhar card number, name (fname, lname), age, gender, phone, email.
2. Each **user** may have zero or more co-passenger associated with him.
3. Each **co-passenger** will have name, age, gender, phone and email, and can be associated with exactly one user.
4. Each **tourist spot** will have attributes like spot\_Id, name, address, ratings and most suitable season to visit that place.
5. Each **hotel** will have hotel\_Id, name, address, contact number, services that it provides (like Pool, Gym, etc.), number of

available rooms, food availability and ratings.

1. Each **room** will have attributes like room number, number of beds, number of people it can accommodate, room-type (AC/ Non AC etc.), other amenities’ details (like sea-facing view), status of room (available or not), and its rate.
2. **Guides** will have name, gender, age, email, phone number, address and Aadhar card number.
3. Each **Location** will include attributes like pin-code, city and state.
4. Each **restaurant** will have restaurant\_Id, name, address, contact number, food-type (Veg/Non-Veg), available cuisines and ratings.
5. Each **location** may have zero or more **restaurants** but one **restaurant** will be situated at only one **location**.
6. Each **hotel** will have exactly one **location** and each location can have more than one **hotel**.
7. Each **package** will include hotel rooms, tour guides, different visiting spots, duration and rate of the full trip and can be uniquely identified using a package\_Id.
8. Each **package** can have one or more **hotel rooms** included in it and one **hotel room** can be included in one or more than one **packages**.
9. Each **tour guide** can be associated with one or more than one **package** but one **package** may have zero or more **tour** **guides** associated with it.
10. Each **tour guide** will be available at a single location i.e. they can only show around the tourist spots to the user in that location. Each **location** may have more than one tour **guides**.
11. Each **package** may consist of more than one **tourist spot**.
12. Also, one **tourist spot** may be included in more than one **package**.
13. **Users** will have the option to either book a **package** offered by the site or to book a **hotel room** individually.
14. Each **booking** will have attributes like booking dates, package or hotel rooms selected, user and co-passenger details and payable amount and can be uniquely identified using a booking\_Id.
15. Each **booking** is associated with only one **user** and one **user** may have more than one **booking**.
16. Also, each **booking** will be associated with either only one **package** or **hotel room**.
17. One **package** may have zero or more **bookings**. Similarly one **hotel room** may also have zero or more **bookings**.

**Queries that database system should be able to answer:**

1. Retrieve the packages within a particular price range.
2. Show the list of top 3 packages based on the number of users who booked it.
3. Retrieve list of all the active packages with full details.
4. View list of all the tourist spots at a particular location.
5. View the tourist spots included in a specific package.
6. Retrieve the tourist spot with highest user ratings.
7. View all the restaurants that serve “only veg” food at a particular location.
8. View all the restaurants that have “Chinese” cuisine included in their menu.
9. Retrieve all the hotels that are situated at location “Ahmedabad”.
10. Retrieve list of hotels that are providing “Gym” services.
11. Retrieve the hotel with highest user ratings.
12. Retrieve list of hotels sorted according to their user ratings.
13. View list of hotel rooms starting from the Lowest Price to Highest Price.
14. Retrieve list of hotel rooms that provide “Cable TV” facility at a particular location (city).
15. Retrieve all the packages associated with a particular guide**. (admin)**
16. Retrieve all the packages associated with a particular hotel.
17. Retrieve all the packages which include “xyz” spots.
18. Best place to visit place in “Winter” season.
19. Name and address of hotels between limited price range.
20. Retrieve list of all the guides which are not associated with any active packages.
21. List all the hotels that have room availability from "this date" to "last date" at a particular location.
22. Number of rooms available at a particular hotel right now.
23. Retrieve all the previous bookings of user. **(both)**
24. Retrieve the bookings between particular date of “xyz” user. **(admin)**
25. Retrieve all the bookings between particular date. **(admin)**
26. Retrieve all the details of user of “xyz” hotel room. **(admin)**
27. Retrieve all the user booking details of “xyz” hotel. **(admin)**
28. Give details of co-passenger with “xyz” user with dates. **(admin)**