

Lab – 2 Assignment

Group Number: 7

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Title: Tourism Management system.

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 user_Id (for unique identification), 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/reviews, most suitable season to visit that place.
- 5) Each **hotel** will have hotel_Id, name, type of stay, address, contact number, services that it provides (like Pool, Gym, etc.), number of

available rooms, food availability, star ratings and user ratings.

- 6) Each **room** will have attributes like room id, number of beds, number of people it can accommodate, room-type (AC/ Non AC etc), other amenities' details (like sea-facing view), availability of room(Yes/No), and its rate.
- 7) **Guides** will have name, gender, age, email, phone number, address and a unique identification number (guide_Id).
- 8) Each **Location** will include attributes like location id, city and state.
- 9) Each **restaurant** will have restaurant_Id, name, address, contact number, food-type (Veg/Non-Veg), available cuisines and user ratings.
- 10) Each **location** may have zero or more **restaurants** but one **restaurant** will be situated at only one **location**.
- 11) Each **hotel** will have exactly one **location** and each location can have more than one **hotel**.
- 12) Each **package** will include locations, hotels, tour guides, different visiting spots, duration and rate of the full trip and can be uniquely identified using a package_Id.
- 13) Each **package** can have one or more **hotels** included in it and one **hotel** can be included in one or more than one **packages**.
- 14) Each **package** should have at least one **location** and one **location** can have more than one **package**.
- 15) Each **tour guide** can be associated with one or more than one **package** but one package may have zero or more tour guide associated with it.
- 16) Each **tour guide** will be available at a single **location** (city) i.e. they can only show around the tourist spots to the user in that location.
- 17) Each **location** may have more than one tour **guides**.
- 18) Each **package** may consist of more than one **tourist spot**. Also, one **tourist spot** may be included in more than one **package**.
- 19) **Users** will have the option to either book a **package** offered by the site or to book a **hotel** individually.
- 20) Each **booking** will have attributes like booking dates, package selected, user details and payable amount and can be uniquely identified using a booking_Id.

- 21) Each **booking** is associated with only one **user** and one **user** may have more than one **bookings**.
- 22) Also, each **booking** will be associated with either only one **package** or only one hotel.
- 23) One **package** may have zero or more **bookings**. Similarly one **hotel** 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 5 packages based on the number of users who selected it.
- 3) View list of all the tourist spots at a particular location.
- 4) View the tourist spots included in “abc” package.
- 5) Retrieve the tourist spot with highest user ratings.
- 6) View all the restaurants that serve “only veg” food.
- 7) Retrieve list of all the restaurants at “abc” location.
- 8) View all the restaurants that have “Punjabi” cuisine included in their menu.
- 9) Retrieve all the hotels that are situated at location “xyz”.
- 10) Retrieve list of hotels that are providing “xyz” 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 have “sea-facing view” at a particular location.
- 15) Retrieve the list of hotels based on their star-rating (Three-star hotel, Five-star hotels etc).