Phase I. EER Design

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0. Pre-Illumination

For clearly describing the conceptual design, we separate this report into three parts. In Part 1 we specify the assumptions, explanations and limitations of the whole project, in Part 2 we draw the EER diagram in details, and in Part 3 we give the explanation of (min, max) notation for all the relationship appearing in EER diagram. Finally, a short summary will be given at the end of this report.

1. Assumptions, Explanations and Limitations

In this part we discuss all the assumptions, explanations and limitations in this project to illuminate our EER diagram, based on both the project description and real life experiences.

1.1 Assumption

We think that:

- Users have a unique username and email address.
- The post date and time are indicated by a time stamp.
- Recorded responses to comments and who responded to them.
- Not preserving the old record (i.e., description) when preferred members have updated the location details.

- No given location is visited more than once during a trip, and travel expenses for visits are not taken into account.
- Price will be recorded for restaurants' and attractions, but Null for a mall.
- The Business name is not unique.
- We can have multiple business partners in specific destination.
- User can get service from multiple business partners at specific
- destination.

1.2 Explanation

- **Division of "MEMBER":**

  We utilize an entity called "MEMBER" to represent both the preferred and regular members since there are two different types of members. A member may be a preferred or regular member.

- **Division of "DESTINATION":**

  We divided **DESTINATION** into three categories i.e shopping mall, restaurant and Attractions. This is done because a person visiting the destination may visit any of these places.

1.3 Limitations

There are some limitations both from title statement and from daily life. We list them as follows:

- We only take into account three different sorts of destinations—shopping malls, restaurants, and attractions—but people actually visit other locations as well.
- Only preferred members have the ability to change the destination's description.
- The ratings of a particular destination are being derived from user ratings only.
- Regular members can only be given preference if they have more than one million followers.
- User can only upload photograph if and only if user visited the destination.

PROJECT QUESTIONS

a) Can you think of 5 more rules (other than the one explicitly described above) that are likely to be used in the system?

1) We can store the feedback of the trip from members as member_id, feedback and improvements.
2) We can include transport facilities like car, bus at tourism places and store their respective charge per miles and no of trips they make a day and money earned.
3) We can include the videos as well along with images for much more travel attractions.
4) We can store the accommodation and food details that are located near tourist spots as hotel name, no of people coming, hotel_id, food items available.
5) We can store more locations as well other than restaurants and shopping malls.

b) Is the ability to model superclass/subclass relationships likely to be important in such an environment? Why or why not?

Yes, I agree that modeling super class/subclass connections is crucial in such a setting.

In such a setting, super class/subclass connections enable us simulate intricate ideas like attribute inheritance. This is because there are different types of destinations (e.g., sights, restaurants, shopping) and it would be helpful to able to group them accordingly.

c) Justify using a Relational DBMS like MySQL for this project.

Because MySQL is a relational DBMS and can store the data in a structured manner, it can be used for this project. The ability to trace who posted comments and when they were posted is another feature of MySQL that might be helpful for this project.

2. EER Design Diagram

In this part we draw an EER design diagram with common notation introduced from textbook.

Figure 1 exhibits the whole design as follows:

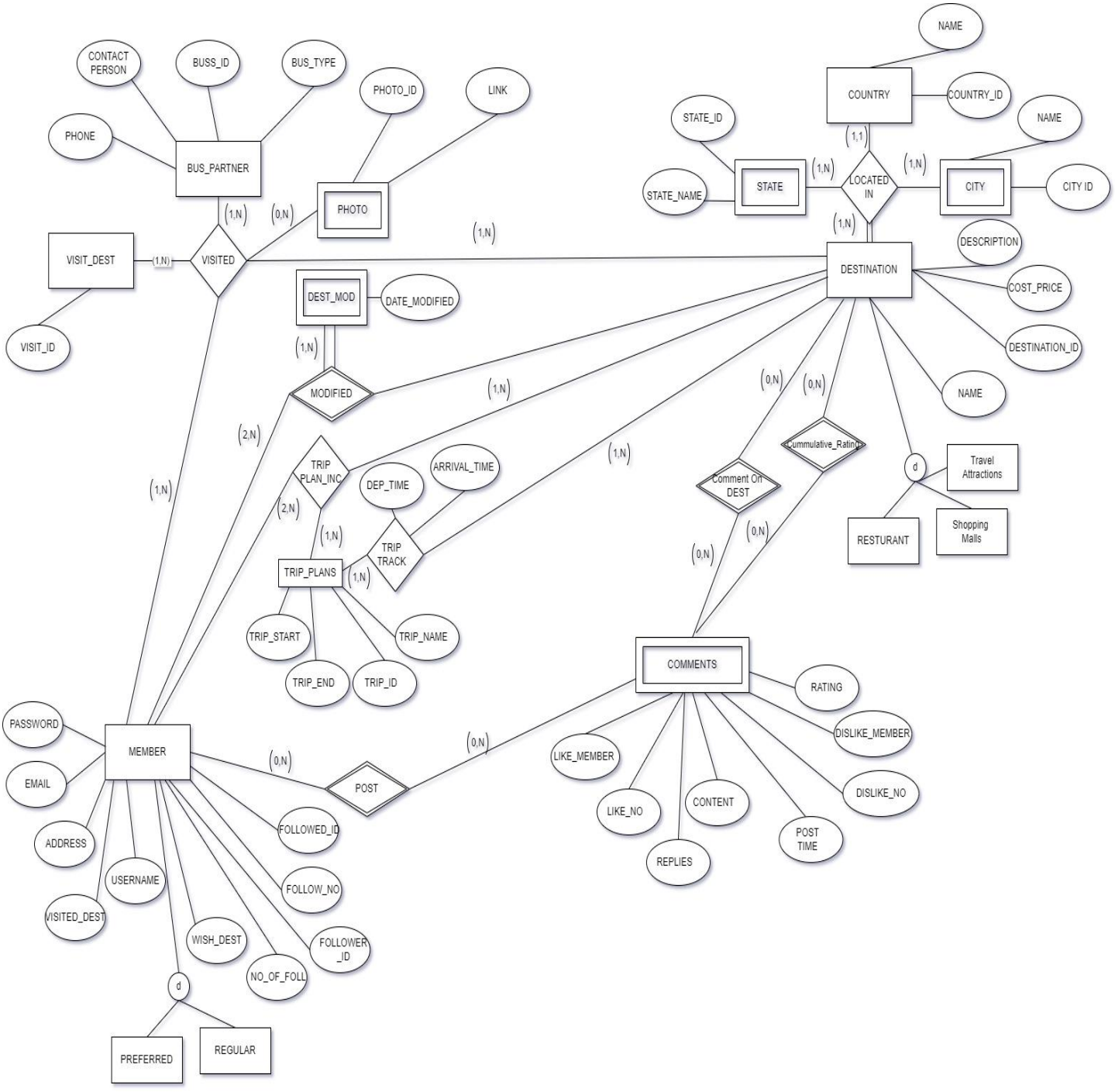

Figure 1

3. (Min, Max) Notation for Relationship

Min, Max notation for each relationship are clearly mentioned in the figure.

4. Conclusion

In this report we discussed and drew the EER diagram for Trip Share Database management system. Initially we made our assumptions and explanations, and then we gave the diagram for our EER model. The last part is mainly focused on all relationships existed in the EER diagram that are mentioned clearly in the diagram.

This report analyzed the conceptual model of Trip Share Database management system. The next step is to build physical models and other details. In the future, we may change some mappings of this conceptual model when facing practical difficulties and other requests. In addition, Figure 1 includes all the details which we may omit in our description. For further questions please contact us or refer to the above discussion.