CIS 431 - Project
Deliverable 3

Requirements

Phase 3 Deliverable must contain the goal of this phase of the project, and a description of the creation of the database schema and instance and of the application programs. It must also provide any revisions made to the specifications described in Phase 2 Deliverable. It must further describe the problems encountered in Phase 3 and justify the solutions.

- The queries should execute.
- Make sure you have ample sample data in your tables so that you can sufficiently perform and illustrate all required tasks.
- Choose appropriate referential triggered actions for the foreign keys.

1. Write SQL commands for creating tables including primary keys, secondary keys and foreign keys (including referential triggered actions for the foreign keys if supported by your DBMS). Write SQL command files that populate each table. Each table is required to have a sufficient number of tuples. Keep in mind the relationships between tables, and plan your data accordingly. You should be able to run the command files successfully with no errors and no integrity violations.

2. Write SQL commands to support Photo applications, Sales Applications and Reporting applications. Photo applications include adding a new photo, deleting an existing photo, changing photo information, and querying photo information. Sales applications include processing a sale, viewing a sale (given transactionID), finding sales (given different features e.g. date, customer name etc.). Reporting application involve generating reports (e.g. find the total sales per customer).

In particular, write SQL commands to support the following actions. You should be able to demonstrate the implementation of these actions.

1. List customers who spent more than 100$ for the photos.
2. List photos which were not bought.
3. List customers who bought all photos (portraits) in which a model X modeled.
4. List photographers who influenced exclusively photographers who are US citizens.
5. List photographers which took only portrait photos.
6. List transactions (transID) which contain more than 3 photos.
7. List models who modeled in all photos taken by photographer Y.
8. Rank the photographers by the total cost (sum of prices) of the photos they took.
9. Delete from relation Photo the photo with photoID=X.
10. Update the photographer name of the photo with photoID=X to Y.
11. Compute total sales per customer
12. Compute total sales per photographer sorted by photographer
13. Compute total sales by photo type (portrait, landscape etc.)
14. Compute top n dates (in a total sales per date list)

What is expected:
1. Description of implementation, problems faced.
3. The SQL commands that create your tables
4. The SQL commands that populate your tables
5. The queries and data change commands.
6. A printout of the execution of the queries.

You should demonstrate your project. Please send an email to the TA of the class (Mr. Cem Aksoy, email: ca64@njit.edu) to fix an appointment for the project demonstration.