391 Project summary

1. Introduciton

Upload and store photos

Enter and update the descriptive information of your photos

Specify the access privileges for your friends and/or public to share your photos

Search for photos with given words and/or other specified conditions

Generate and display a data analysis report

1. Specification

Security and User:

Username/Password/Firstname/Lastname/Address/Email/Phone No is required for login.

We can make (User/Password) tuple as our main key and other attributes stored in one database table as “Login”

User can create and own groups with (Groupname/List of Usernames(Ref type?))

Each image stored in the system should have a unique owner with (Description only updated by this user) <-Trigger?

Each Image can be viewed by public, closed group and private. (We can make property as one of the Image attributes)

Security process while (Creating new groups/Removing and adding username to a group/Security input Changing)

Upload:

Upload (a single Image with/All Images in a local directory) with (Description:Place/Time/Subject/People who can access; Sercurity info) as options.

Use this to insert a table.

Default Settings: Security info: Login input/Desciption: Null

Only dealing with \*.jpg and \*.gif

Display:

All thumbnails with grid view in the main page, click thumbnails zoom up and display discriptions.

Top 5 most popular pictures should pop up to the top/ sort by (How many users have viewed this image)

Search:

Can be searched by (Key words list/ Time periods)

Pop up with thumbnails -> (Images which satisfied the search condition and accessible to user by the security info)

Ranking algorithms:

Time:

If indicates, then most-recent-first / most-recent-last

Otherwise:

Rank (Photo\_id) =6\*frequency (subject)+3\*frequency(place)+frequency(description)

Analysis:

Use OLAP format: <http://en.wikipedia.org/wiki/OLAP_cube>

* One must generate a data cube information of the number of images for all the combinations of three columns, i.e., user, subject, and time(according to the values of column when).
* The user must be able to perform generalization (roll up) and specialization (drill down)  on three levels of time hierarchies,  i.e., weekly, monthly, and yearly.
* To speed up the OLAP operations, one might materialize the data cube information by creating a fact table/view storing all  information needed, including the lowest level of time hierarchy.