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Objective:

To organize the user's Facebook photos by dividing a set of photos into categories using a given criterion. The options of criteria are:

- Place: categorizing a photo based on where it was taken
- People: categorizing a photo based on people who are in the photo

Description of the product:

The application allows the user to choose 1 of the 2 options, "place" or "people", as a criterion for organizing his/her photos.

If the user chooses "place", the application will create an album for each of all locations associated with the photos, and title the album as the name of the place. Each of the photos is then put into one (or more) of these albums according to its location tag.

If the user chooses "people", the application will create an album for each of the groups to which the user belongs, and title the album as the name of the group. Each of the photos is then put into one (or more) of these albums according to the majority group to which the people in the photo belong.

Interesting technical aspect:

The interesting technical aspect of this project is how to classify a photo based on people in the photo. Beside groups that people in the photo belong to, we can incorporate other of their information such as network, school, workplace etc.

Target customers:

Facebook users

System architecture:

The application has the following basic components:

- Information extractor: get information of the photo such as location and people in the photo
- Classifier: assign each photo to one or more categories
- Album manager: create albums and put photos into albums

Tools/Languages:

We expect the following tools and languages to be helpful or necessary:

- Facebook developer app
- Facebook Graph API
- Facebook Graph API explorer (a Facebook developer tool that allows developers to look at Facebook objects (users, events, groups, pages etc))
- Javascript and/or PHP and associated SDKs provided by Facebook
- Facebook Test User API (tests the use of an app by a temporary user account)

Challenge(s):

The most significant challenges we anticipate facing are:

- Understanding the Facebook API and making sure we can actually implement our intended functionality.
 - We can minimize the risk by reading the API thoroughly and finding out if all intended functionality can be implemented.
- Determining a logical way of sorting photos such that the sorting can be done efficiently (for example, issues may arise when sorting photos with a large number of tags).
 - We can minimize the risk by spending a lot of time upfront considering various sorting mechanisms and determining which are optimal in terms of functionality and practicality. Big O analysis can also be useful.