CSCI 585- Database Systems
Spring 2013
Homework Assignment 1
Project Description

The goal of this assignment is to
1) Design a conceptual schema using the (E) ER Data model,
2) incorporate this schema into an OR-DBMS,
3) Run queries on this database.

Part 1: Extended ER data model (50 points)

Design a schema that incorporates the specification described below as efficiently as possible. You should submit a written diagram of your schema design using the notation given in the class. In this diagram, indicate all the classes, subclasses, relationships (weak & strong), relationship cardinalities and degrees, total participations, attributes, and primary keys. In addition, specify whether each attribute is single-valued or multi-valued, stored or derived, and atomic or composite. In your design, you can make and state reasonable assumptions if they are not specified in the specification.

Design Specification
Design the database system for facebook (www.facebook.com). It should store and manage the following information but it is not exactly same as real facebook website. However, if you have ambiguous parts you can assume data type based on real facebook system:

Facebook User
A Facebook user has a unique facebook ID. A user has a first name, last name, gender, birthdate, birthplace, age, email, a profile picture and a list of friend ids. A user has a wall so that his/her friends can make a post.

Wall
A wall has a unique ID, a list of posts. A user has only one wall. A wall can be visible to some or all of user's friends.

Post
A Post has a unique ID. A post is associated to one wall. A post has an author, a content can be text or a photo, posted date and location, number of likes, and list of user who like the posts.

Comment
A comment is belonged into one post. A comment has an author, posted date, number of likes and list of user who like the comments.

Photo
A Photo has a unique ID. A photo is belonged to one post. A Photo has an author,

description, location and a list of people was tagged in a photo.

Submission Guidelines

1. You are REQUIRED to submit a pdf (part1) to dropbox in den.usc.edu. It should also include your reasonable assumptions.
2. We do not accept late submission for this homework.