Alexandria University
Faculty of Engineering
Specialized Scientific Programs
Fall 2016

Computer and Communications
Program 7th term
CC471, Database Systems
Final Project
Due date: week before final exams

Database Final Project

Social Network Website

Problem Statement

It is required to develop a social networking web based application that involves the use of the internet to connect users with their friends, family and acquaintances.

Social media websites are not necessarily about meeting new people online, although this does happen. Instead, they are primarily about connecting with friends, family and acquaintances you already have in real life.

The most well-known social media sites are Facebook, Twitter and Google+.

You can share photos, information and news through social networking web sites.

Getting Started

It seems a bit complex when you're getting started but once you get used to it you'll find it easier to implement.

The project should be implemented in the following six stages:-

Stage I: Entity-Relationship diagram

Design an entity relationship diagram for the social network database and enter the design using a data-modeling tool such as Diagram.

Stage II: Signup/ login /logout/ profile edit
You should implement those features. Each user profile must have the following fields.

- First name *
- Last name *
- Nickname
- Password *
- Phone Number(s)
- Email *
- Gender *
- Birthdate *
- Profile picture: there is a default photo for each gender.
- Hometown
- Marital status: Single, Engaged or Married.
- About me

Notes:

a. Any user should have a default profile picture depends on his/her gender. If a user hasn't uploaded his/her profile or removed it from edit profile, the default image should be used.
b. Password must be encrypted in DB.
c. Login should be done with email and password.
d. Nickname should be used as the display name of a user. If the user leaves it blank in registration, it should be set by first name and last name.
e. All profile info should be public except Birthdate and About me.
f. Public means → all users can see. Private means → friends only.
g. "*" denotes required fields in registration form.

Stage III: Browsing Friends and Send or Accept Friend requests:

User should be able to add someone to his/her friend list. By sending friendship request to a buddy, this buddy should view the friendship requests that he/she has got in a place with the number of friend requests.
Notes:

a. It's not required to have real time notification.
b. The friend requests number should be viewed in all screens. **With a link to page having list of friend requests to accept/ reject them.**
c. Each user has a button **"Friends"** that will navigate to friends' page and will list all friends for logged in user. Friends' names will be hyperlinked so clicking on any friend's name will navigate to his profile.

Stage IV: Posting data:

Users can make posts that should be shown in their profile:-

Each post has the following fields:-

● Caption *
● Image
● Posted time *
● Is public *
● Poster name *

Notes:

a. When a user changes his profile picture, a new private post should be added with caption "User has changed his/her profile picture".
b. Public means that all users can see the post. Private means for friends only.

Stage V: Home and Profile screen

User should view posts (recent posts first) in his home screen form:

a. Public posts by all users.
b. Private posts by friends.

Notes:

a. When you browse someone's profile you should see Data depending on your relationship with him or her.
b. Posts are displayed in chronological order from latest to oldest.

Stage VI: Advanced Search

Users can search through a screen in the following fields:

a. Full email
b. First ,last names
c. Hometown
d. Part of caption from all posts he has posted before

Bonus

a. User can make likes on posts using like button. Also he should know if he has posted like before or not for each post. User also can view who has liked every post.(AJAX required)
b. Add option to remove friendship in friends page, and remove post from own profile.
c. Support Emotions.
d. Real time notification when someone added you or like your post.

Submission

1. You should submit the source code and initial set of data into your database if we don't provide you with one.
2. You should submit a report which contains **ER diagram** drawn by any modeling tool, **Relational model** with correct mapping, **DDL**, **pseudo code** for the design and **model of the website** and **division of labor** among team members.

Policies

- You should work in group of four.
- Deadline will be in the week before final exams. It will be determined soon.
- If 2 or more copies are discovered, all copies will lose all the marks of year work. Hence, it is better to deliver nothing than delivering a copy.
- No late submission is allowed.