Database Project 2

ER-Diagram and Main Page Design

Introduction

Design the entity-relationship diagram of Facenote, a simplified version of Facebook and implement the main page using PHP & MySQL.

Part 1, ER-Diagram

Design the ER-diagram for Facenote system with following requirements:

- **User**: information of a user, including user id, password, name, sex, birthday, email, interest, location. Each user has a set of friends, companies and schools. A user can post articles, give response to others post and press the like button, and send messages to another user.
- **Friend**: relation of two users. Attributes contain two user id and the relationship (friends, parents …) between them.
- **Location**: geographic information, including country and city.
- **Company**: information of a company. Attributes contain company name, type and its location. A user may join one company in some period of time, record the start/end time.
- **School:** information of a school, including school name, degree, department and its location. A user may attend to a school in some period of time, record the start/end time.
- **Article:** an article posted by a user. Attributes contain article id, content, and posting time.
- **Response:** text responses to an article from users, including text and posting time.
- **Recommendation:** users can share websites to their friends. The information containing the title, URL and some descriptions of it.
- **Like:** record whether a user likes an article, response, or recommended website.

Please save your ER-diagram in PDF or JPEG file format.

Part 2, Webpage Design

Program requirements

Implement the website using **PHP & MySQL**.

First, create a database "*db_pj2*" with three tables, "*users*", "*friends*", and "*articles*": (*sample data is provided in e3, you don't have to build by your own)

users, the profile of a user		
Attribute	**Data type**	**Description**
uid	VARCHAR(15)	Account/id of a user, primary key
password	CHAR(32)	MD5 encoded password string
name	VARCHAR(30)	Full name
email	VARCHAR(50)	Email, unique key
birthday	DATE	Birthday, for example, "*1980-01-31*"

friends, the relationship between two users		
Attribute	**Data type**	**Description**
uid	VARCHAR(15)	Account/id of a user, primary key
friend_id	VARCHAR(15)	Id of another user, primary key
relationship	VARCHAR(30)	Relationship between ***uid*** and ***friend_id***, like *father*, *mother*, … or *NULL* if they do not have specific relationship

In *friends* table, the relationship is only in one direction. For example, if John and Mary are friends to each other, there will be two entries in this table, (John, Mary, *NULL*) and (Mary, John, *NULL*).

articles, the article posted by a user		
Attribute	**Data type**	**Description**
uid	VARCHAR(15)	Account/id of a user
postid	BIGINT	A unique id for the article, primary key
content	TEXT	Text content
time	DATETIME	The time the article is posted, for example, "*2013-02-28 23:05:45*"

There is a sample data provided for you to implement/test your website. Please **download "*db_pj2.sql*" from e3 and import to your "*db_pj2*" database**. For every account in the sample database, the password is identical to their id,

e.g. the password of user "*aaa*" is "*aaa*" encoded by *md5* function.

NOTE: all database names, table names, and attribute names should be **exactly the same** as the description written above, otherwise your program may not correctly executes in TA's server and you'll get some points of penalty.

After creating the database, implement the main page of Facenote with at least four pages, "***index.php***", "***main.php***", "***userinfo.php***", and "***logout.php***". Requirements are described below:

- ***index.php***: a form to enter username & password. Submit to *main.php*.
- ***main.php****:* verify whether the user is logged in. If username and password are not in database print "wrong password" message. For a correctly logged-in user, show following information:
  - A welcome message and two links: *user info*, a link to *userinfo.php* and show the profile of the user; *logout*, a link to *logout.php*.
  - List all articles posted by the user and his/her friends. Information contains posting user name (not id), content, and posting time. The list is sorted in descending order, that is, newest on the top.
  - List all friends of the user. For every name in the list, there is a link to *userinfo.php* that shows the profile of the friend.
- ***userinfo.php****:* print the profile of one user, including name, birthday, and email. There is a link back to *main.php*. Only a logged-in user can see this page.
- ***logout.php****:* Destroy the session of the logged-in user.

Figure 1 ~ 3 are examples of the required pages. You can design your own style in your project.

Figure 1: *index.php*

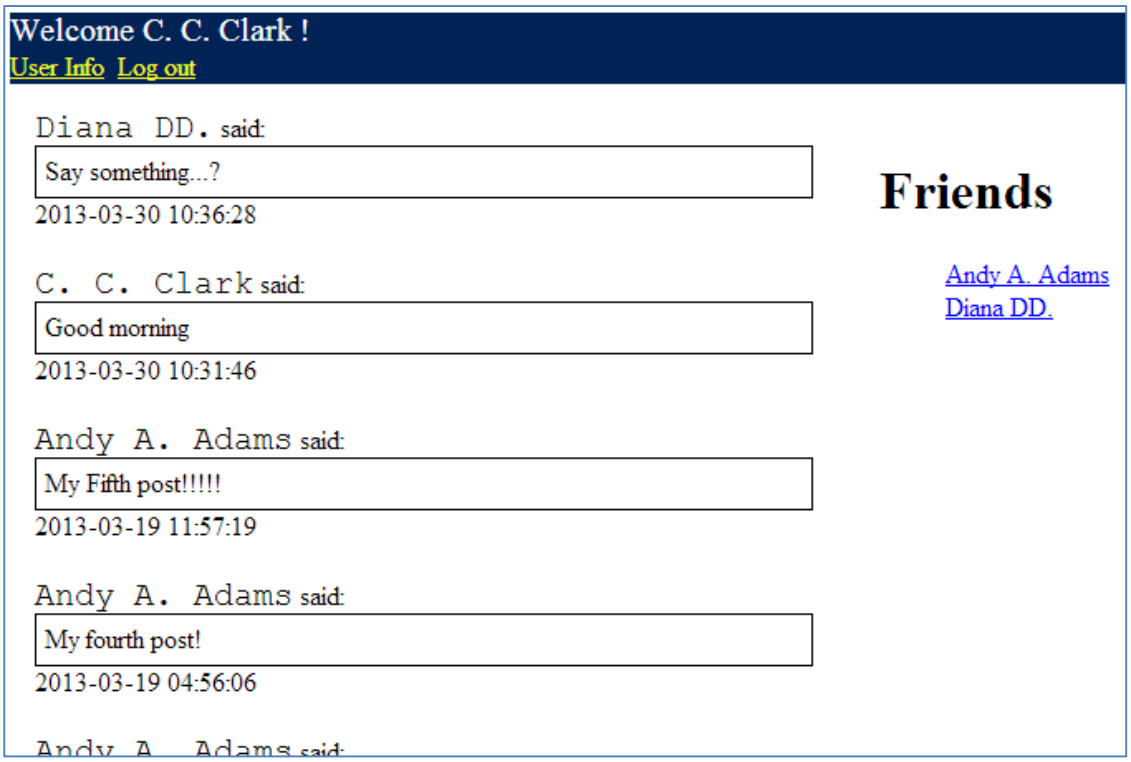

Figure 2: *main.php*

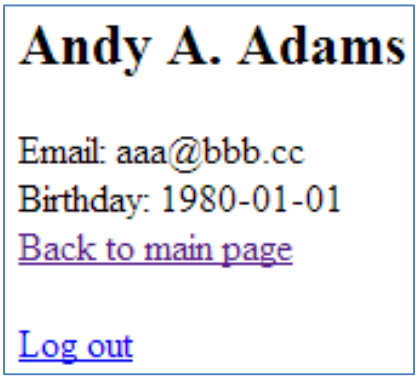

Figure 3: *userinfo.php*

NOTE: **do not** include any image or external URLs in this project. For every URL, **use relative link** and all pages are under the same directory.

Testing Environment

- Standard HTML 5, CSS, JavaScript, PHP, MySQL, without any external library
  - Apache 2.4.2, PHP 5.4.7, and MySQL 5.5.27 or newer versions are recommended
  - Website will be tested under latest version of Google Chrome
- When submitting your program, please use the following information

to MySQL server:

- **Host**: localhost
- **Username**: dbuser
- **Password**: dbuser
- **Database**: db_pj2

Scoring Criteria

- ER-Diagram 30%
- Correctness of program 70%
- (Bonus, make it pretty)Page style design 5%

Project Submission

Please pack your **ER-diagram file** (*.pdf or *.jpg) and **source code** files (**.html, *.php, *css ...)* in **studentID.zip**, ex: *0016789.zip*, and upload to e3. DO NOT UPLOAD/CONTAIN OTHER FILES. The dead line is 23:59, 25 Apr. 2013.

10 points penalty if you do not follow the submission requirement.

Demo is not required in this project.

Note

Plagiarism / copy others work are not allowed.

If you have any problem to this project, please contact TA or come to EC 637 for more information.

TA information

- Ming-Chu Chu, romy.mcchu *at* gmail.com
- Li-Hui Chiou, silent7986.cs97 *at* g2.nctu.edu.tw
- Yi-Chien Wu, b303479 *at* gmail.com

Information system lab, EC637.