

Database Project 3

ER-Mapping & Insertion Function Design

Introduction

Design the relational schema of Facenote, a simplified version of Facebook and implement the insertion functions using PHP & MySQL.

Part 1, ER-Mapping & Normalization

According to the ER-diagram of Facenote you finished in project 2, map the schema into a relational schema and specify the primary keys and foreign keys. After finish the mapping, normalize the relational schema into 3NF.

Please save your answer in PDF or JPEG file format.

Part 2, Webpage Design

Program requirements

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

Create a database “*db_pj3*” extended from project 2, new attributes and new tables are described below: (*sample data is provided in e3, you don’t have to build by your own)

<i>users</i> , the profile of a user		
Attribute	Data type	Description
<i>sex</i>	ENUM('M','F')	Male or Female

<i>likes</i> , record whether a user likes an article		
Attribute	Data type	Description
<u><i>postid</i></u>	BIGINT	A unique id of an article, primary key
<u><i>uid</i></u>	VARCHAR(15)	Id of a user who likes this article, primary key

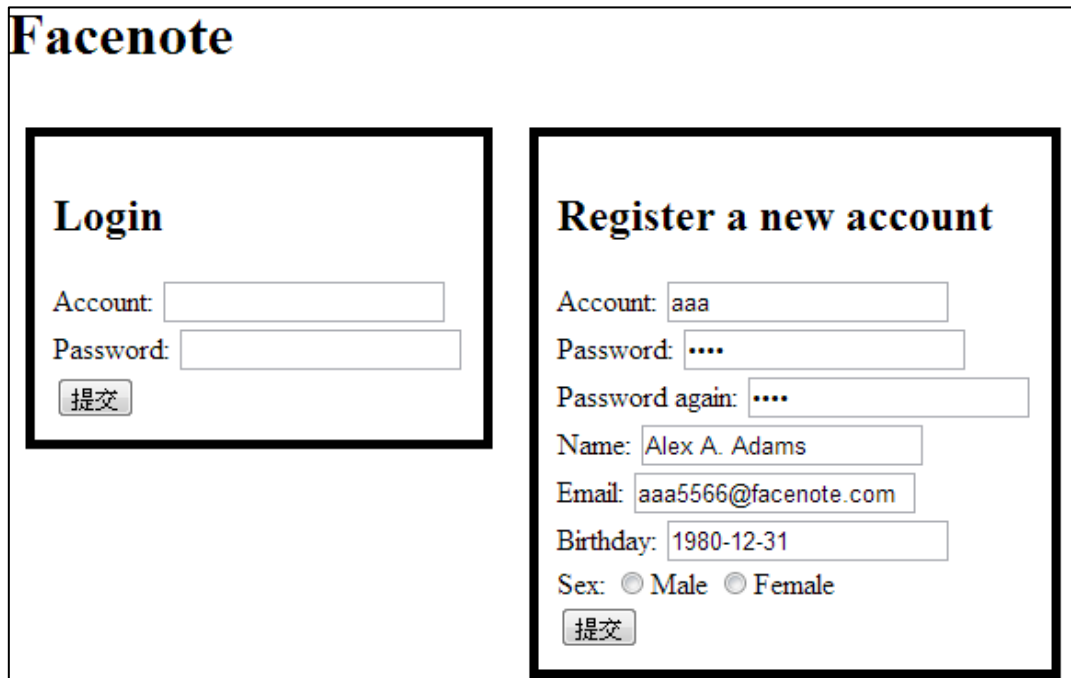
There is a sample dataset provided for you to implement/test your website. Please **download “db pj3.sql” from e3 and import to your “db pj3” database.** For every account in the sample database, the password is identical to their id.

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, extend the Facenote system followed by your project 2 with new functions added:

- A new user can register a new account.
- A user can add a friend by entering his/her friend's id. Note: you should add two entries into *friends* table.
- Post new articles.
- Press like button to an article and show number of likes of each article.

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



The screenshot displays the 'Facenote' website interface. It features two main sections: 'Login' and 'Register a new account'. The 'Login' section includes fields for 'Account' and 'Password', with a '提交' (Submit) button. The 'Register a new account' section includes fields for 'Account' (filled with 'aaa'), 'Password' (filled with '....'), 'Password again' (filled with '....'), 'Name' (filled with 'Alex A. Adams'), 'Email' (filled with 'aaa5566@facenote.com'), 'Birthday' (filled with '1980-12-31'), and 'Sex' (radio buttons for 'Male' and 'Female'). A '提交' (Submit) button is also present at the bottom of the registration form.

Figure 1: *index.html*

Welcome Andy A. Adams !
[User Info](#)
[Log out](#)

Say something...

Friends

[Big Boss](#)
[C. C. Clark](#)
[C. C. Clark](#)
[Diana DD.](#)
[Franklin "Frank" Foster](#)
[Solid Snake](#)

C. C. Clark said:

0 likes
2013-04-25 11:04:21

Andy A. Adams said:

0 likes
2013-04-25 10:53:14

Franklin "Frank" Foster said:

0 likes
2013-04-25 10:53:14

Figure 2: *main.php*

Welcome Andy A. Adams !
[Main page](#)
[Log out](#)

Andy A. Adams

ID: aaa
Email: aaa@bbb.cc
Birthday: 1980-01-01

Friends

[Big Boss](#)
[C. C. Clark](#)
[C. C. Clark](#)
[Diana DD.](#)
[Franklin "Frank" Foster](#)
[Solid Snake](#)

Add a new friend:

friend id:
relationship:

Figure 3: *userinfo.php*

Hint: you may need more pages to accomplish all functions.

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. Try to avoid all server warning/error messages.

Testing Environment

- Standard HTML 5, CSS, JavaScript, PHP, MySQL, without any external library except jQuery.
 - Apache 2.4.2, PHP 5.4.7, and MySQL 5.5.27 or newer are recommended.
 - If you need jQuery, please use the link from [Google CDN](#) with version 1.9.x or 2.0.x. **DO NOT** upload the .js file of jQuery.
 - Website will be tested under latest version of Google Chrome.
- Please use the following information when connecting MySQL server:
 - **Host:** localhost
 - **Username:** dbuser
 - **Password:** dbuser
 - **Database:** db_pj3

Scoring Criteria

- ER mapping and normalization 30%
- Correctness of your website 70%
- (Bonus)Page style & functionality design 10%

Project Submission

Please pack your **Part-1 file** (*.pdf or *.jpg) and **source code** files (*.html, *.php, *.css, *.js ...) in **studentID.zip**, ex: 0016789.zip, and upload to e3.

DO NOT UPLOAD/CONTAIN OTHER FILES. The dead line is **23:59, 9 May 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.

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