INFS3202/7202 Practical 4 –SQL and Databases

(9 marks)

Overview and objectives

Recall the meta-data associated with the restaurants on your website. Initially this data was static and hard-coded into the HTML. In Prac 3 you took the first step towards making this data more secure and much more easily modifiable, storing it in files. This Prac we take the next leap and store the meta-data in a database. This is generally much more secure, modifiable and efficient than our solutions to date.

You should be working on this practical in Weeks 7, 8, and **9**. You must present the results to your Lab tutor during your scheduled Lab session in Week **9**, beginning the **6**/05/2015. The Prac could be done either in the Lab or at home. But your work must be assessed in your Lab session. You must also **upload** your code that you have shown to the tutor to Blackboard by 6pm on the day of your Prac session.

This practical exercise is divided into three tasks:
- Creating the database (1 mark);
- Editing the metadata through an Admin Page (3 marks);
- Dynamic Google map markers (2 marks)
- Search functionality (3 marks).

Preparation

Before attempting this practical you should have a good working knowledge of HTML, PHP or JSP as well as SQL and databases. Please ensure you that you have covered the material in Lectures 1-5.

As a reminder you should place any HTML and PHP files in the dedicated directory of your personal web server (zone): **/var/www/htdocs/**.

For the zones there is a copy of phpmyadmin already provided in your **/var/www/htdocs/** folder. If you visit **http://infs3202-xxx.uqcloud.net/phpmyadmin** (where xxx is specific to you) you can access this. The login to the mysql server (and thus to phpmyadmin) is the zone's name as the username (eg. infs3202-xxx) and you will need to contact your tutor for root password. Conversely you may work from and present on your own machine (this may require you to install appropriate database software).

Task 1 (1 mark): Creating a database

Create a new database to store the meta-data associated with the locations on your webpage. You are only required to have one table in your database. The attributes (columns) of the table should be the meta-data attributes, e.g. name, location, contact, latitude, longitude and description. The entries (rows) will each correspond to a restaurant on your website.

You should be able to show your table in phpmyadmin to your tutor.

Task 2: Editing the meta-data (CRUD; create, read, update, and delete operations)

The following three sub-tasks can be implemented either by modifying the admin page you created in Prac 3 or by creating a similar page in PHP. You should add an extra column 'Remove' to your table and a button 'Add' to the page.

My Thai Res	Edit	Remove
Sunglass	Edit	Remove

<div align="right">

Add

</div>

Task 2.1 (1 marks): Add a restaurant

When an admin user clicks the 'Add' button a form should pop up (again similar to the pop-up on 'Edit' from Prac 3). The form should have input boxes for all the attributes in your table from Task 1. You are required to at least have inputs for *name, location, contact, url, latitude, longitude,* and *description.*

Name:

Address:

Contact:

Images:

Latitude:

Longtitude:

Description:

Submit   Clear

A validation of input needs to be performed before the data is inserted into the database, **i.e.** name must be at least 4 letters long and cannot be empty.

Task 2.2 (1 marks): Edit a restaurant

As per Task 2.1, when an admin user clicks the 'Edit' link, pop up a form with prepopulated details of a restaurant. Input validation is required before updating the details in the database.

Name: My Thai Restaurant

Address: 113 Haig Road, Auchenf

Contact: (07) 3217 7227

Images: mythairestaurant1.jpg#m

Latitude: -27.470458

Longtitude: 152.995788

Description: One of the best
testaurant in this area
Hours: Monday Closed
Tuesday   5:30-9:30 pm
Wednesday

Save   Clear

Task 2.3 (1 mark): Delete a restaurant

When the admin user clicks a 'Remove' link, pop up a form with 'Are you sure' and yes/no options. If the admin selects yes, remove the record from your database. Refresh the page with the entry removed.

Task 3 (2 marks): Dynamic Google map markers

You have created a Google Map in practicals one and two. For this prac, you are tasked with improving that Google Map by making it more dynamic. The markers from the first two practicals were required to be hard-coded. For this task, you should change your code to retrieve the marker location from your database. If you make a change to the latitude and longitude fields in your database, these changes should be reflected in the position of the markers on your map.
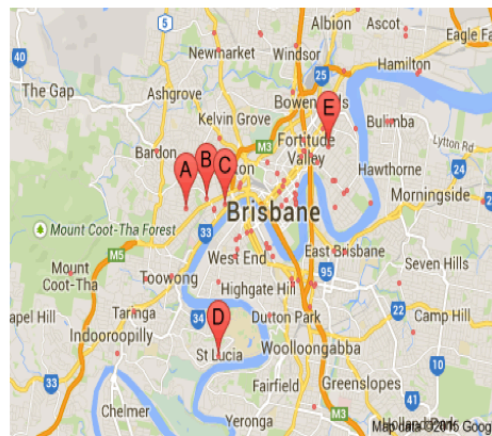

Task 4 (3 marks): Search Functionality

On your overview page, add a 'Search' link. When this is clicked redirect the user to a Search page.

The purpose of the Search page is to allow the user to find restaurant that match some criteria. Your page should have input boxes for a number of the meta-data attributes of your deals, at least 'name', 'address' and 'phone number'. The 'name' and 'location' inputs should be free-text.
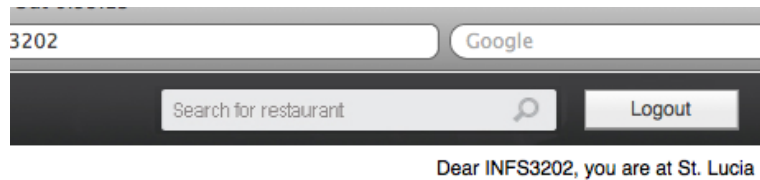
You should then display all search result in a new page with a similar format to your main page. In other words have a page with the images and meta-data of all restaurants that matched the search and a map with marks that indicate the corresponding restraints` location.
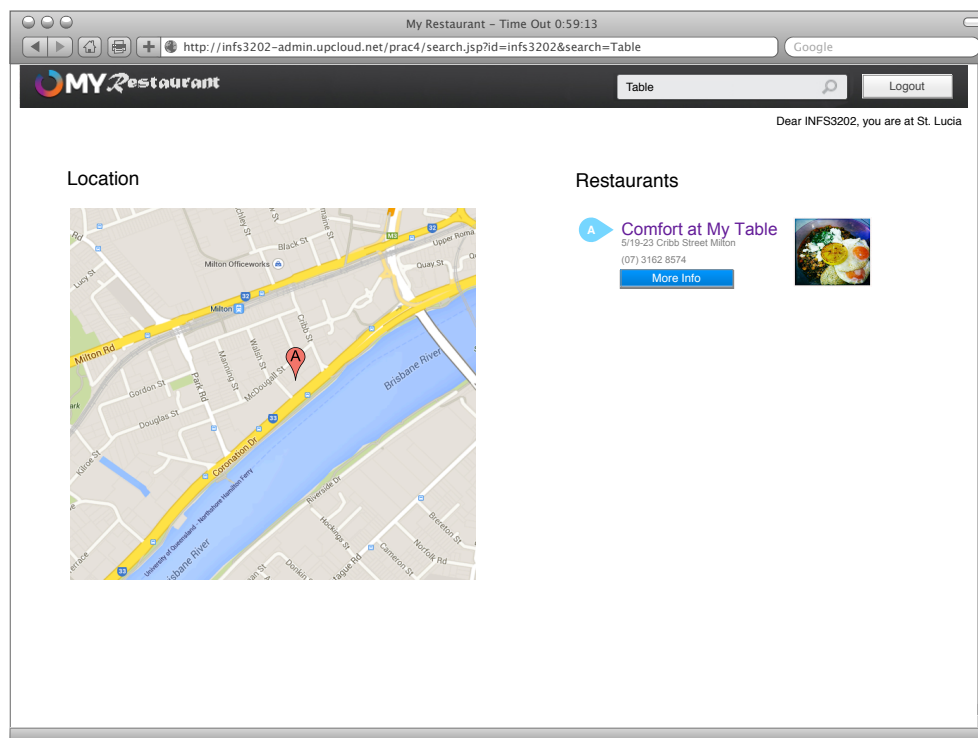
If no results match print a message 'Sorry, no results matching your search were found'.

http://infs3202–admin.upcloud.net/prac4/search.jsp?id=infs3202&search=Apple

Google

MY *Restaurant*

Apple

Logout

Dear INFS3202, you are at St. Lucia

Location

Restaurants

Sorry! not match result can be found!