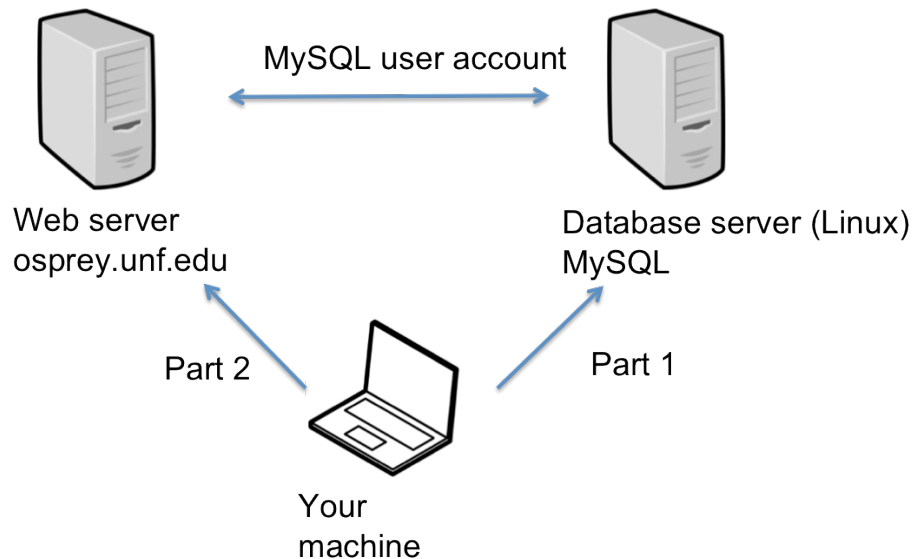COP4813/5819 Internet Programming
Spring 2014
Lab 5• April 2
Ching-Hua Chuan (c.chuan@unf.edu)
Due: April 18 (Friday)
Total points: 30

In this assignment you will create a web system using the three-tired architecture with PHP server-side scripts and MySQL databases. The following figure shows the architecture: the web server (osprey.unf.edu) running PHP scripts and a Linux-based database server running MySQL. To create the system, first you need to remote login (using SSH) to the Linux server to setup necessary accounts and databases (Part 1). Once the accounts and the database are established, you will write PHP scripts to provide a web interface for the user to interact with the database (Part 2).

MySQL user account

Web server
osprey.unf.edu

Database server (Linux)
MySQL

Part 2

Part 1

Your
machine

Part 1. MySQL

Remote login to the Linux server

A virtual server is created for each student for this assignment. You will receive the ip address of the virtual server and the login username/password in your UNF email. Once you have the login information, you need to use SSH (putty if you use Windows or terminal on Mac) to log in. For example, on Mac, type

```
ssh student7@139.62.63.206
```

if your account is student7.

Once you log in, change the password to your n-number by typing the command:

```
passwd
```

To download the software putty: http://www.putty.org/

Create MySQL databases and user accounts

The MySQL server is pre-installed with a default account. To log into the MySQL shell: run

```
mysql -u student7 -p
```

Type in your password (the one you received in the email) when it prompts to you.

Next, create a database named **urls**, which consists of a table named **urltable**. The table **urltable** contains two fields. The first field, **URL**, shows an actual url; for example, http://www.unf.edu. The second field, **description**, shows a description of the url; for example, University of North Florida for http://www.unf.edu.

The following commands help you create the database:

```
mysql> SHOW DATABASES;

mysql> CREATE DATABASE urls;

mysql> SHOW DATABASES;

mysql> USE urls;

mysql> CREATE TABLE urltable (URL char(50), description char(100));

mysql> SHOW TABLES;

mysql> INSERT INTO urltable VALUES ("http://www.unf.edu", "University of North Florida");

mysql> SELECT * FROM urltable;
```

At this point you should see a table with two columns (URL and description) showing the data entry about UNF official website.

Part 2. Create a website that uses PHP to interact with the MySQL database. You will use the MySQL user account (the one that you received via email) and the ip address (139.62.63.206) of the virtual server to connect to the MySQL server.

Your website should provide the following functions:

1. Allow the user to insert a new entry (url and its description) to the table.

2. Update an existing entry: if the user inserts an entry with the existing url, update the description by appending the new description to the existing one.

3. Keyword search: accept a keyword from the user and create a table to show the search results (urls and descriptions, in which the keyword is contained). Display the entries in alphabetical ascending order based on the url. If the user typed * as the keyword, you should display all the entries in the table.

To test your PHP script, **you need to upload it to the web server (osprey.unf.edu)**.

Submission

Upload the files to your personal web space on osprey.unf.edu. Create an index page at the following url (xxx represent the last 3 digits of your N-number):

http://www.unf.edu/~your_n_number/ip/xxx_lab5.html

Submit the above link and your PHP scripts/codes on Blackboard.