

CS 1520 / CoE 1520: Programming Languages for Web Applications (Spring 2012)
Department of Computer Science, University of Pittsburgh

Assignment #3: MySQL + PHP

Released: November 10th, 2012

Due: 11:59pm, Tuesday, November 20th, 2012

Goal

Gain familiarity with MySQL, especially in connection with PHP.

Description

In this assignment, you are asked to create two different PHP pages:

- `rss-import.php`, which will read a predefined list of RSS feeds and import their summaries into a MySQL database, and
- `rss-search.php`, which will search the stored RSS feeds in the database for a certain keyword and return the results, sorted by their publication date.

List of RSS feeds

We will use multiple different feeds from the New York Times web site ([nytimes.com](http://www.nytimes.com)), for example: <http://www.nytimes.com/services/xml/rss/nyt/US.xml>. The listing is provided to you as a separate php file, called `a3.rss-feeds.php`, that initializes an array called `$rss_feeds`, which you need to include in your program.

MySQL Database Schema

You should store the following information about each feed and also about each entry within each feed that you upload into the database:

Feeds:

- `feed_name` (i.e., channel/title)
- `feed_url` (i.e., <http://www.nytimes.com/services/xml/rss/nyt/US.xml>)
- `feed_id`

Entries:

- `feed_id`
- `item_title` (i.e., channel/item/title)
- `item_link` (i.e., channel/item/link)
- `item_date` (i.e., channel/item/pubDate)

Note that you should **make sure you do not have duplicates** stored in the database, so if the `rss-import.php` script is called twice in a row, the entries stored are not doubled. An SQL script to create these two tables is provided (`a3.create-db.sql`)

rss-import.php

Your program should access the different RSS feeds specified in array `$rss_feeds`, and insert the name/url of every RSS feed into the Feeds table, and read every item and store its title/link/pubDate in the Entries table. You should make sure there are no duplicates stored in the database.

rss-search.php

Your program should have a simple textbox form for the end user to submit a string. Upon clicking the submit button, if the string is empty, then all the entries stored in the database should be printed. If the string is not empty, then all the entries that have this string as part of their title should be returned.

The results should print:

count, feed_name, item_title, item_link (as hyperlink for the item_title), item_date in a single line, where count is a simple counter for the results, starting at 1.

The results should be sorted by the item_date field, i.e., more recent items should be listed first.

What to submit

Two PHP programs that perform the tasks listed above, along with any additional libraries that you have developed (and are shared by the programs). You should also include the `a3.rss-feeds.php`. There is no standard naming scheme for the libraries.

Academic Honesty

The work in this assignment is to be done *independently*, by you and only you. Discussions with other students on the assignment should be limited to understanding the statement of the problem. **Cheating in any way, including giving your work to someone else, will result in an F for the course and a report to the appropriate University authority for further disciplinary action.**

How to submit your assignment

We will use a Web-based assignment submission interface. To submit your assignment:

- If you have more than one file to submit, prepare your assignment for uploading, by generating a single zip file with all the files.
- Go to the class web page <http://db.cs.pitt.edu/courses/cs1520/fall2012> and click the Submit button.
- Use your pittID as the username and the password you specified at the contact information form for authentication. There is a reminder service via email if you forgot your password. You must have already submitted your contact information, if you have not yet you need to do so now.
- Upload your assignment file to the appropriate assignment (from the drop-down list).
- Check (through the web interface) to verify what is the file size that has been uploaded and make sure it has been submitted in full. **It is your responsibility to make sure the assignment was properly submitted.**

You must submit your assignment before the due date (11:59pm, Tuesday, November 20th, 2012) to avoid getting any late penalty. The timestamp of the electronic submission will determine if you have met the deadline. There will be no late submissions allowed after 11:59pm, Thursday, November 2nd, 2012.

[Last updated on November 10, 2012 at 6:04pm EST]