UNIVERSITY OF REGINA
Department of Computer Science

CS 215 – Web & Database Programming
Winter 2018

Assignment #5: Micro-Polling Website – Server-Side Programming

Due: Tuesday November 27, 2018 by 11:55 PM

This is the fourth in the series of assignments for building a micro-blogging website. In the first assignment, you built an interface mock-up of the site. In the second assignment, you implemented the client-side programming. In the third assignment, you designed and built the database. For this assignment, you will use PHP to implement the server-side programming. The last assignment will focus on performing AJAX-based updating of the website. Because the assignments build upon each other, you may wish to made modifications to your previous assignment submission before starting this assignment.

Now that you have designed and constructed the database, the next step is to use PHP to access the database and dynamically construct specific elements of the web pages.

This assignment is divided into two different components:

1. PHP Database Entry & File Upload

There are a number of pages that result in the database being updated with new information. These pages are listed below, with an explanation of what is to be done for each.

    a. Sign-up Form
- validate the form data to ensure that the required fields are present and that they do not contain illegal data; if there is a problem, return to the sign-up form with a generic error message
- if the data is good, add it to the database and return the user to the Main Page so they can login
- for the user avatar image/graphic upload, move the image file to an appropriate location within the web application file structure, and save its location (URL) in the database
- see http://www.php.net/manual/en/features.file-upload.post-method.php for more information on managing file uploads.

    b. Poll Creation Form
- only allow access to this page if the user has successfully logged in
- validate the form data to ensure that all of the required elements are present and in the proper format.
- if the data is good, add it to the database and return the user to the Poll Management Page

   c. Poll Vote Page
- save the data for this instance of voting
- redirect the user to the Poll Results Page

2. PHP Database Query

There are a number of pages that result in the database being queried. These pages are listed below, with an explanation of what is to be done for each.

   a. Main Page
- get the five most recent active polls (most recent first) from the database
- list the question for each poll, with a link to allow the user to vote in the specific poll (link to Poll Vote Page)

   b. Login Form
- query the database with the login credentials to verify that the user exists and provided the correct password
- if the information is correct, save the necessary information to know who this user is within a session variable, and redirect to the Poll Management Page.

   c. Poll Management Page
- retrieve all of the polls for the logged in user from the database
- organize the information according to the requirements in Assignment #2
- provide links for each poll to the Poll Vote Page and Poll Results Page

   d. Poll Vote Page
- retrieve the information for this poll from the database
- provide the question and the answer alternatives

   e. Poll Results Page
- query the database to get all of the required information to show the current results of this poll
- organize the results according to the requirements in Assignment #2

Since the pages you have build for the previous assignments will each be modified, you should ensure that they are still HTML5 compliant (following the syntax rules of XTHML), use CSS, and that there is a proper separation of the specification of the content from the specification of the presentation rules, the specification of the JavaScript code, and the specification of the PHP processing code.

Grading Scheme

This assignment will be graded out of 10 marks, based on the following criteria:

1 mark: Sign-up form processing
1 mark: Creation of new polls
1 mark: Poll voting and saving the results
1 mark: Loading the most recent active polls on the main page
1 mark: Login and saving the state in a session variable
2 marks: Dynamically generating the poll management page content
1 mark: Dynamically generating the poll vote page
1 mark: Dynamically generating the poll result page
1 mark: Correct redirections to the proper pages after form processing

Submissions

All of the files for this assignment should be posted to your personal website on Hercules, as well as uploaded to UR Courses (a single zip file). A simple submission log file should be provided that includes your name, student number, class number, the URL of where you have posted the files, and a listing of the files you have submitted along with a short explanation of the purpose of each file. **Failure to provide these support documents will result in delays in the grading of your assignment and possibly a deduction in your grade.**

Late submissions will not be accepted. If there are exceptional circumstances that kept you from submitting your assignment on-time, you should consult with your instructor as soon as you are able to do so. See the syllabus for more details on the late policy for this class.