

Homework #8: AllMusic & Facebook mashup – an Ajax/JSON/Java Exercise

Total points: 10 points

1) Part I: Basic user Interface (AJAX JavaScript and Servlet): 5.0 points

- a. Main page;
- b. A functioning Search button;
- c. JavaScript to implement the client side (3 points):
 - i. Set up AJAX transaction with XMLHttpRequest;
 - ii. Set up “callback” function;
 - iii. Invoke Java Servlet;
 - iv. Retrieve results and display artist/album/song information from allmusic.com. Subsequent searches should not mix the results. Only the requested results for the current search must be displayed;
 - v. Have “Facebook” button for each entry in the table which, when clicked, posts information about the selected entry to the Facebook news feed (the “Wall”).
- d. Java Servlet: (2 points)
 - i. Interface with the web client application;
 - ii. Parse the XML files returned by querying your script from Homework 6. Extract information, and translate into JSON message to be sent back to the web client application;
 - iii. Handle Exceptions and return appropriate JSON responses.

2) Part II: Facebook: 5.0 points

- a. Create an appropriate cross-domain Communication Channel File;
- b. Include required JavaScript libraries from Facebook;
- c. Authorize the user to Facebook if the user is not already logged in;
- d. Posts a story feed of the media’s information to a user’s News Feed;

Additional Requirements:

- 1) The program must work in Firefox 18.
- 2) All the results should be displayed in the same window as the search form. No back button should be used to enter a second search. If a back button is required to go back to the original page between searches or if a second page is needed to show the results, a 3-point deduction will be made.
- 3) Handling exceptions. If someone's homework doesn't handle Java Exceptions, a 2-point deduction will be made.

IMPORTANT NOTE #1:

Implementing the assignment by having the Java Servlet execute directly a Perl or PHP program, by invoking the Perl Interpreter as in [exec('script.pl')], will result in a penalty of 5 points. As described in the exercise, the Java Servlet should invoke the "modified" Perl or PHP script from HW #6, by using an HTTP transaction with the Apache web server's CGI program. It is recommended that you make a copy of your HW #6 Perl or PHP script, and rename it to be used, and modified, in HW #8, so as to leave intact the Perl or PHP code you submitted for HW #6.

IMPORTANT NOTE #2:

Modifications to the Perl or PHP script from HW #6 should only involve replacing the “HTML code” delivered to standard output with "XML code" delivered to standard output. As with the rules for HW #6, **NO** third party “parsing” libraries are allowed in PHP and Perl on Apache. Using any such libraries will result in a 0 for the assignment. Java libraries for parsing XML and JSON in Tomcat ARE allowed.