Ser423/Cse494 Mobile Computing

Lab 5 JsonRPC Android App and Movie Collection Server

Due by midnight Tuesday March 1, 2016. No late submissions will be accepted.

Changes since distribution:

- No changes.

Description

You are to create a **JsonRPC** server in **Java** that remotely manages a collection of movie descriptions. You may model the server after the **StudentCollections JsonRPC** server that has been provided in the example: studentCollectionJsonRPC.jar. Refer to the readme.txt file in this archive for instructions for executing this example. The server has also been executed as an example in class. Your server should maintain the same file and directory structure as this example.

In addition to the **Movie Collection JsonRPC** server, you should create an Android App, based on your solution to Lab3: Android App to View and Manage MovieDescriptions. Your Android app should use the server you create as its only data source for obtaining movie information. You should not retain a local mirror of the movie collection within the app, and instead use the **JsonRPC** methods defined by your collection to obtain model information. You are free to use either the **Thread and Handler** approach or **AsyncTask** approach as discussed in class to create your solution. The same packaging, documentation and solution formatting constraints as with the prior assignments apply to this assignment as well. These apply to the server you will generate as well as to the Android app:

1. Place all of your application source code into the package named: **edu.asu.bsse.asuriteid.appname** where **bsse** designates your academic program: **bscse**, **msse**, **bsse**, **bscs**, which stand for **BS Computer Systems Engineering**, **MS Software Engineering**, **BS Software Engineering**, or **BS Computer Science** respectively. **asuriteid** is your asurite id.
2. As part of all class header comments, that you create and turn-in this semester, include a copyright notice, such as: **Copyright 2016 Your Name**.
3. As part of the class header comments, include a **right to use** statement. The examples presented in class use the Apache License Version 2, but you should put whatever rights you prefer. At the very least, you must provide the instuctor and the University with the right to build and evaluate the software package for the purpose of determining your grade and program assessment.
4. As part of the class header comments, include a reference to the software's author, such as: **@author FirstName LastName mailto:FirstName.LastName@asu.edu**.
5. As part of the class header comments, include an indication of the software version, such as: **@version March 2, 2016**

These comments are required on all code that you generate this semester. If you hand in an assigment that does not include them, it will not be graded.

What To Hand-In

Structure your project as a single sub-directory of the folder named **Assign5MyASURITEID**. The sub-directory should contain the **iOS** app. You will submit this project, by first cleaning it (to remove all generated files. Then create a **jar** or

zip archive of the project (Assign5*) directory. You can create a **Java Archive (jar)** by executing the following command from a terminal in the directory which is parent to the project directory:

jar -cvf Assign5MyASURITEID.jar Assign5MyASURITEID/

That archive will then be submitted via **Blackboard**. See the Content section.

Grading Criteria

- **5 points**. Your server solution builds using Ant. And, your methods are available via **Curl**.
- **5 points**. Your app should define and properly use network requests off of the UI/Main Thread by using either the AsyncTask or Thread and Handler.
- **5 points**. Your Android app and server solutions include comments described above as headers for each class used in the apps.
- **5 points**. Your Android app provides the ability to list all movie titles, to display the details of a single movie, and to manually add and remove movie descriptions. Your app uses only the **JsonRPC** server as its underlying model.

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