

# Homework 5: AsyncTask and Server

Due Friday, 6/26 @09:00am

**Submission Requirement:** Same as the previous homework.

**Task 1 (60 points):** Modify the RecyclerView fragment that you wrote in the past, do the following:

1. **Task A (15 points):** Load your movie data from this URI: **www.example.com/movies/**. It should be noted that the URI ends with a **"/**. You need to write your server-side program, but you have to use this URI. Your server-side code should return an array of json objects, just like what you get from <http://www.cis.syr.edu/~wedu/Teaching/android/Labs/json/movie.json>
2. **Task B (15 points):** Each movie entry from the above json file has a field called **"url"**, which is where you should download the picture for the movies. You can't use any local image; all the movie images must be downloaded from the Internet.
3. **Task C (15 points):** On the RecyclerView fragment, please include a SearchView item in the Action bar (see the code provided by me). When users types a number in the text field, the RecyclerView will refresh and display all the movies with ratings larger than or equal to the number typed in the SearchView field. The URI that you use to get the movie list is **www.example.com/movies/rating/8.0**. The number 8.0 should be replaced by whatever is typed, but the prefix **www.example.com/movies/rating/** should be the same. You should write the server-side code, which returns an array of json objects.
4. **Task D (15 points):** When a movie is selected, the detail fragment should be loaded, which displays the details of the movie, including its name, description, year, length, stars, directors, rating, and images (you can reuse the fragment that you built in the past homework). The details of the movie are not included in the above json array; instead, you need to fetch the details from your server. Each of the json objects in the above json array includes a field called **"id"**. If the value of this field is **"titanic"**, then the URI for the movie details is **www.example.com/movies/id/titanic** (there is no **"/** at the end of the URI). Your server-side code should return a single json object, which is like what you get from <http://www.cis.syr.edu/~wedu/Teaching/android/Labs/json/titanic.json>

It should be noted, during our grading, we will use our own server-side code, not yours (you need to submit your code though). Make sure that you use exactly the same URIs as described above.

**Task 2 (30 points):** Create an AddMovie fragment, which asks users to type in the information for a new movie (you don't need to include all the fields), convert the inputs to JSON format, and send the JSON data to your server using POST request. Your server should add this new movie to the database. When you use RecyclerView to view the movies again, the new movie should show up. We will not test this functionality, so you need to submit a report describing how you did this. You should include the related snippet of your app-side and server-side code.