Inf553, Project description: Step 3
Application programming on top of an RDBMS

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Nov 8, 2019

1 Outline

In this step, you must **create a servlet that asks a query over the MusicBrainz database and returns the answer in a Web page**, using JDBC and servlets.

2 To do

Create a servlet class which you will deploy as part of the Web application built during the lab. The servlet:

1. Should be named **QueryServlet**.

2. Should be deployed at the address **QueryServlet** within the Web application.

3. Should have **two parameters: countryname and year**

   - Year should be an integer smaller than 2050.

   If the supplied values do not satisfy these constraints, the server should throw an informative **IllegalStateException**.

4. Values for the two parameters *must* be specified; the servlet must throw an informative exception if this is not the case.

5. The servlet should **send an SQL query through JDBC to a Postgres server running on the same machine**. The query looks up artists that released albums in a year greater than the specified **year**, in the respective **country**, and returns the id and name of these artists and the number of albums published by this artist in the specified country during the specified year.

6. The servlet response should be in **HTML** format. When called from within a Web browser, it should lead to the aspect illustrated in Figure 1.

7. In a second step, we ask you to make each artist name an HTML link; clicking on it should lead to a page that displays for the respective artist:

   (a) If the artist gender is Female, then "Mrs."; otherwise, if the artist gender is Male, then "Mr."; otherwise, nothing.

   (b) The artist name;

   (c) If the artist birth year is known, "born in y" where y is the birth year, e.g., "born in 1950" for Rudy Rotta;

   (d) The artist's geographical area if it is known, e.g., ", Italy" for Rudy Rotta.

Artist Id	Artist Name
1	Various Artists
200959	The Spitfire Band
139469	The Ford Blues Band
40439	Prairie Oyster
158675	Michel Rivard
9753	Bryan Lee
43080	Lennie Gallant
23950	Murray McLauchlan
96254	Stephen Bacchus
840007	The Jump Street Five
21055	Richard Elliot
4991	SNFU
112303	Paul Piché
710602	Toyo
42950	Charley Pride

Figure 1: Sample output for point 6 of this project step.

3 What to turn in

You need to turn in Moodle by **Nov 29, 2019**

The file `QueryServlet.java` and any other file that you think necessary.