

CS 386/586 Winter 2013 Assignment 2

Assigned: Wednesday, January 16, 2013

Due: Wednesday, January 30, 2013 at midnight

General Information:

You are strongly encouraged to do substantial work on your Assignment 2 by Wednesday, January 23, 2013 (one week after it is assigned). This schedule will then allow you to ask questions during class (on Wednesday, January 23) before it is due – the following Wednesday.

Submission: you **must** post a **note** to the “**instructors**” with the **attachments** (listed below) in Piazza. You **must** put your note with the attachment in the **turn-in-assign-here2** folder.

You can submit your assignment at any time. But, you are not allowed to delete questions or notes (even their own questions or notes) and you are not allowed to delete attachments. So, please submit your assignment when it’s ready. It is possible for you to add an attachment to your post; click on the small symbol labeled “more” immediately below your post. If you need to resubmit, please modify the same post and attach the new file(s) with an appropriate name (e.g., v2). If you need to have us delete one of your questions or notes, please notify us (the instructors) either through another post to instructors in piazza or by e-mail.

Assignment Details:

Write a C program for correcting clearance IDs of agents assigned to a particular mission and for printing out two reports.

Note: our sample program (provided by Neena Maldikar) is in C; you can take her program and adapt it for your needs. She will provide a demo of using a cursor with a query in C on Wednesday, Jan. 23.

If you would like to do this assignment in C++ or Java, that is also acceptable but you’ll need to figure out more of the details on your own. With Java, you’ll use something called JDBC rather than what Neena showed you – something called ODBC.

The program should ask the user to enter a mission. The program should then check the `access_id` required for that mission and make sure that all the agents assigned to the mission have a security clearance that is less than or equal to the mission clearance. If not, update the agent's clearance to the required level. For example, if the mission clearance (i.e., `access_id`) is 3 and the agent’s `clearance_id` is 4, then the agent’s `clearance_id` should be changed to 3. If agent’s `clearance_id` is 2, it should not be changed.

Print the summary of all the changes that your program makes in the following format:

Agent ID	First Name	Last Name	Old Clearance ID	New Clearance ID

Also, print a list of the languages that the team members for that mission can speak; make sure you list each language just once.

Running your program:

You must use the SQL statements provided in the 'Assignment 2 - SQL.txt' file to create the required tables in the public schema of your database (w13db??). You can copy and paste these CREATE TABLE statements into the SQL window and then execute them in postgresql. You will be creating some of the tables from the spy database. Then you must import the data files (.csv) provided, to put data into the newly created tables.

Run the following cases and provide your output:

1. User inputs mission '1'
2. User inputs mission '5'

Turn in:

1. Your code (C, C++, or Java)
2. Your program output result
3. An extract/export of your 'agent' table after execution of your code, in .csv format.