

Project Steps

You have been provided with the description of two projects. Each group needs to make a choice for one of them.

- Step 1. [2 marks] [Due: Wednesday February 15th @ 11:49 pm] Provide your project choice (project 1 or project 2). This will be your final choice for the rest of the semester, so read both projects carefully. Describe the selected project more clearly. What are the possible entities, attributes and relations? If you may include specifications or generalization in your design. Specify any assumptions that you may add for designing the database and for its use. This is just outlining your thoughts and initial design. You may consult websites, references or even contact users, so that you come up with more detailed description and assumptions. You provide the initial list of possible SQL DML that a user can use to manipulate the data in your system. You need to specify any possible triggers or assertions you may need that can increase the functionality of the system. You need to summarize the triggers and assertions already given and add more to them. The system should provide functionalities for both regular users and admin user of the system. TA is not your database administrator. You need to include your references.
- Step 2. [6 marks] [Due: March 8th @ 11:49 pm] Draw the ER/EER diagram, and then convert it to a relational schema. Indicate primary keys, foreign keys and any other constraints you may have. Also, write SQL scripts for creating the database tables according to the relational schema and populate them with a reasonable number of tuples. Also include a series of 'drop table' queries that will drop all tables created. You need to provide the final list of queries, triggers and assertions that you will implement in the final submission (only description at this point) and how they are used. You also need to include an initial design of the website and how it will be used. Please notice that your system should run on Uottawa site pgAdmin and use the PostgreSQL DBMS
- Step 3. [6 marks] [Plus a Bonus 5 marks] [Due: March 31st @ 11:49 pm] enhance and implement a web-based DB program with a simple graphical user interface for users and admins. This program should connect to the database through the internet and provide the functionalities discussed in the project description. Provide a detailed implementation and description of all queries that can be provided by the program and used by regular users and by admin user. You may use any programming



language you want. But you will be taught some web database programming in the lab (php and jsp). Implement any query/view/trigger that the end-user may need. Submit your source code, executable and program snapshots as a ZIP file via Blackboard. Part of the mark will be dedicated on how you organize and present your work. A bonus of 5 marks will be given for groups who come up with additional functionality to the system (SQLs, triggers and assertions) other than what are specified in the initial project description. The bonus will be added to all your course semester work, so try your best to get it!

Step 4. [1 mark] [April 3rd] A demonstration schedule will be created for you to present and discuss your work. So every team need to be ready to present. A clear task distribution between the team members need to be provided at the time of discussion, showing the role of each of the team members in the project. One mark will be dedicated towards showing your team work. The final mark for both Step 3 and 4 will be given after discussion.

Submission Guidelines:

Please read the information below carefully. Compliance with these guidelines is a vital part of the grading process.

- Please pay attention to submit your files in proper format, specified for each step. Only one submission per group is sufficient. Include names and student number of all members in every file.
- If you need to update/extend your previous work (i.e. due to TAs feedback), submit your updated documents with the next step. A brief note describing the changes would certainly help.
- Do not submit at the last minute. Unless there is a good reason (i.e. blackboard system crash), only online submissions will be accepted by due dates. No Late submissions will be accepted. In order to encourage submitting partial work, multiple submissions are allowed. You can always retrieve your files, make necessary changes and re-submit until the due date.
- Source codes will be tested using software plagiarism tools. Plagiarized work is very easy to detect, and all necessary measures will be taken to identify and penalize such behavior.
- References are needed to be provided in all your submissions.

GOOD LUCK!