

Final Project

CS451/551, Spring 2024

The purpose of this project is to step through both the design and implementation phases of creating a database and appropriate applications. The subject of your database should be of your own choosing, either fictional or intended for actual use.

Defaults: It is assumed that

- you will work on your own
- you will use a MySQL server running on ix
- applications will be coded using PHP

Exceptions to the defaults are perfectly acceptable (such as PostgreSQL, working on a team, etc.) but should be cleared with the instructor first.

Deliverables:

1. *Cover page*
2. *Summary* - This is a high level, English description of the mini-world to be modeled. This should include an informal discussion of the kinds of data to be stored and the application programs desired.
3. *Logical design* - ER diagram, either using Chen notation or Crowsfoot.
4. *Physical design* - A description of all tables and attributes.
5. *List of Applications* - A description of all the desired applications, which tables each effect, etc.
6. *User's guide* - How to use what you have implemented. We will look at each project, though you do not need to give a demo.
7. *Contents of tables* - A list of your tables and the contents of each. (Rather than including this in your report, it might be simplest to give a link from your project intro page.)
8. *Implementation code* It is nice to be able to look at your code. You could print it out, but it might make more sense to give links to it.
9. *Conclusion* Describe what you have done and what you would do if you had more time.

Mechanism and dates:

- Part One - due Wednesday, May 22.

This should include report (as pdf) of the summary and logical design (ER diagram). (Basically steps 2-3 above.) You do not need to have created any tables or written any code.

- Part Two - due Thursday, June 13.

Turn in a copy of the full report as described above (as a pdf). Alternatively, turn in the cover page and provide links to the requested information above from your project main page. If you used another engine, arrange to provide a demo for the instructor.

- *Warnings/Comments*
 - Provide a guest account so we can connect our query browser at your instance. Be sure to let us know your port number, and that you have a guest account (user *guest* and password *guest*). Also be sure the guest account has adequate privileges to look at your databases and tables.

- Please **do not** incorporate a login mechanism with password protection, or anything of the sort. REPEAT: **no login/password mechanism!!!!** It is hard to implement properly so that it works across different browsers and has very often been a huge impediment to grading.
- Provide sample input data if you feel that it would make testing your project simpler.
- You should be aiming at 8 to 10 tables and 5 to 10 "applications" (units of functionality).
- Your tables should be well populated, with at least 10 to 20 rows each, for proper testing.

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