

Database Design Part 4: Database Application

Due May 23 at 11:59pm **Points** 225 **Questions** 4

Available until May 24 at 11:59pm **Time Limit** None

Allowed Attempts Unlimited

Instructions

Database Application Requirements

For Part 4, you will submit your entire database and system and include:

1. Data Definition Language (DDL) (90pts) – represents the entire DB schema, including table structures, primary and foreign key constraints, datatypes, data constraints, table indexes and relationships. Your DB should consist of at least 12 entities of suitable complexity (3-10 attributes).
2. Data Modeling Language (DML) (90pts) – Represents views (5), queries as stored procedures with varying levels of difficulty (12) and triggers (3) to facilitate information retrieval across your system. Think about the DML in terms of business needs and data administration. In essence, queries are algorithms for information retrieval and should therefore be of a certain complexity to justify their existence. Therefore, a large percentage of your grade will consider such complexity and will be based on your understanding of table joins and query manipulation. Consequently, you are expected to create at least 20 database objects (views, stored procedures and triggers) of varying levels of complexity and provide a rationale for each query.

System (45pts) – Your database system should be integrated into a working system, which allows users to insert, modify and/or delete data and information from the database. Your system must also provide for an additional business constraint that it is not possible to handle with your database alone. A graphical user interface (GUI) will be needed for this requirement. The goal is to let a non-expert user manipulate your system.

Database Submission Guidelines

For the submission, you will need to include the following:

1. An exported copy of the SQL DDL used to create your database.
2. An exported copy of the SQL inserts necessary to recreate your database.
 1. Or appropriate CSV files and an import script.
3. An exported copy of the SQL DML commands used by your database.
4. A zipped collection of the program application and all related files
 1. If you are using Python, please include a requirements.txt generated by the pip "freeze" command, this will increase the likelihood of getting your program running

2. If you are using Java, please include the compiled java application
5. A walk-through of your application's features as a multi-page PDF document.
 1. This must include screenshots of your interface interactions that display its functionality.

Make sure that your application provides the ability for me to connect to your database.

If you are using your CIKeys MariaDB instance, provide me with a user id and password (and let the application make use of it so I can log in.) I should have IP permissions as I will access your database application from the campus network. (You should already have this close to setup as a result of Homework 3.)

If you are not using your CIKeys MariaDB, provide me with the necessary files and scripts to reconstruct your database on a local mysql instance. (This is in addition to the submission requirements above if needed.)

If I cannot get your application to work, and you did not include an application walkthrough PDF, I cannot give you a final grade for the project or the class.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	19,347 minutes	0 out of 225 *

* Some questions not yet graded

! Correct answers are hidden.

Score for this attempt: 0 out of 225 *

Submitted May 23 at 11:02pm

This attempt took 19,347 minutes.

Question 1

Not yet graded / 225 pts

Use this question to upload your zipped folder containing all the required project documents and files.

[!\[\]\(c507f772dba2b921f86777f01218e570_img.jpg\) **Big Bear Zoo Database Application.zip**](#)
(<https://cilearn.csuci.edu/files/2939685/download>)

Partial**Question 2****0 / 0 pts**

Rate your contribution to this phase of the project on a scale from 1-4.

- ☐ 1 – I felt that I did not contribute during this phase.
- ☐ 2 – I felt that my contribution was less than what was expected.
- ☐ 3 – I felt that my contribution was sufficient.
- ☒ 4 – I felt that my contribution was above what was expected.

Partial**Question 3****0 / 0 pts**

Rate your teammates' contribution to this phase of the project.

- ☐ 1 – I felt that my teammates did not contribute during this phase.
- ☒ 2 - I felt that my teammates' contributions were less than what was expected.
- ☐ 3 - I felt that my teammates' contributions were sufficient.
- ☐ 4 - I felt that my teammates' contributions were above what was expected.

Unanswered

Question 4**0 / 0 pts**

Rate your teammates' contribution to this phase of the project. (If you have a third team member.)

☐ 1 – I felt that my teammates did not contribute during this phase.

☐
2 - I felt that my teammates' contributions were less than what was expected.

☐ 3 - I felt that my teammates' contributions were sufficient.

☐
4 - I felt that my teammates' contributions were above what was expected.

Quiz Score: 0 out of 225