INST 327 – Database Design and Modeling

Assignment 1 - See Canvas for the deadline

Instructions

Read the full set of instructions and make sure that you understand them all before starting working on the assignment. You may lose points if you do not follow all of these instructions.

- Submit your assignment as a whole by the deadline stated on Canvas. If you miss the deadline, you will lose points. The following scheme applies to late submissions:

- After the deadline, but within 3 hours of it	10% reduction of base grade; (max grade possible is 90 of 100.)
- More than 3 hrs after the deadline, but within 24 hours of it	20% reduction of base grade; (max grade possible is 80 of 100.)
- More than 24 hrs after the deadline, but within 48 hrs of it	40% reduction of base grade; (max grade possible is 60 of 100.)
- More than 48 hours after the deadline	100% reduction of base grade; (i.e., graded as 0.)

- For example, if the deadline is at 11:00PM, a submission on 11:01PM is subject to 10% reduction; a submission on 2:01PM is subject to 20%, etc. The Canvas timestamp is the time at which the submission is made. Late submissions due to technical issues with Canvas, computer crashes, power outages, etc. are still considered late submissions. To avoid such problems, submit your work well in advance of the deadline.

- The assignment will remain open for late submissions for 48 hours after the deadline.

- You will use the ***iSchool database*** to answer each of the questions in this assignment, as stated in the given question. If you have not built the sample database on your server, download the script file `create_iSchool.sql` from Canvas and build it on your server before starting your work on the questions. If you already have the database on your server, but have made changes to the data or the structure, you may want to drop the existing copy from your server and rebuild the database. Please contact the instructors or the TAs if you encounter problems downloading or running the database script.

- Submit your answers via Canvas (ELMS) using the link on the Assignment 1 page by the deadline. Save all queries in a .sql file named *yourlastname_A1_queries.sql*; for example *diker_A1_queries.sql*.

- State in your sql file what query is the answer to what question by numbering them within comment delimiters. For example:

```
/*Answer 1*/
SELECT *
   FROM ischool.projects;
```

- Ensure that your queries replicate the sample result sets in the figures exactly, matching all data and format aspects; otherwise you will lose points. See the accompanying rubric for details.

- NOTE: Eash assignment will have different prohibitions.

- For this assignment, you are **not allowed** to use the following keywords or structures. You will lose points if you do so. You are advised to review your answer queries to make sure that they do not involve any of the following:

  a) The *BETWEEN* keyword.

  b) The *IN* keyword.

  c) The *LIKE* keyword.

  d) The *LIMIT* keyword.

  e) The *IF* keyword, the IFNULL keyword, the *THEN* keyword, or the *ELSE* keyword.

  f) Exact match conditions to filter result rows. For example, you cannot use

  ... *WHERE last_name = "Smith" ...*

  or

  ... *WHERE last_name <> "Smith" ...*

  or

  ... *WHERE last_name < "Smith" OR last_name > "Smith" ...*

  However, filtering conditions that use inequality conditions to include or exclude a range of values are OK to use, and may actually be necessary in some cases. For example, feel free to use

  ... *WHERE account_balance > 500 AND account_balance < 4000 ...*

or

... *WHERE last_name > "D" AND last_name < "N" ...*

Filtering conditions that include or exclude NULL values are also OK to use. For example, feel free to use

... *WHERE shipping_date IS NOT NULL ...*

or

... *WHERE email_address IS NULL ...*

g) Filtering conditions that compare the primary key values of a table to one or more specific values. For example, you cannot use

... *WHERE customer_id < 7 ...*

or

... *WHERE customer_id = 7 ...*

However, filtering conditions that compare the PK values of two tables is OK to use, and may actually be necessary in some cases. For example, feel free to use

... *WHERE customers.customer_id = orders.customer_id ...*

h) Each answer should be a single query with no embedded subqueries. The only exception to this rule is a set of <u>two</u> SELECT queries that are bound using a UNION keyword. For example, you can use

SELECT ...
UNION
SELECT ...

You are not allowed to bind more than two queries using the UNION keyword.

- Contact the instructors immediately if you think there is an error in any of the questions, or if you feel more clarification is needed.

- <u>This and all remaining assignments in this course are individual-work</u>. Please work on your answers and scripts individually without help from other students in the course and other individuals. As required by University of Maryland regulations, all cases of misconduct are reported to the Office of Student Conduct irrespective of scope and circumstances. **NOTE: Posting an assignment question on Chegg or any other site outside the ELMS course site to obtain assistance from anyone other than members of the instruction team of this course is NOT allowed.**

- The instructors, TAs, and AMPs are the best source for help while working on this assignment. Feel free to seek their help at any time, as needed.

- There are 2 questions in this assignment, and each contributes 50 points towards the overall score on this assignment.