Koby Manning

Assignment 1: Course Management Database

6/29/2023

Question 1 – ER Diagram

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Question 2 – Keys

* Author table
  + Primary key: Auther\_ID
  + Foreign key: none
* Book table
  + Primary key: Book\_ID
  + Foreign key: none
* Book\_Author table
  + Primary key: Book\_ID + Author\_ID
  + Foreign key: Book\_ID and Author\_ID
* Book\_Student table
  + Primary key: Book\_ID + Student\_ID + Row\_ID
  + Foreign key: Book\_ID and Student\_ID
* Student table
  + Primary key: Student\_ID
  + Foreign key: none

Question 3 – Normalization

The current design of the database is in third normal form because there are no repeating values in a single row, each non-key attribute is fully functionally dependent on the primary key(s), and there are no transitive dependencies between columns.

Question 4 – Data type of columns

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Question 5 – Author names

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Question 6 – Novels

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Question 7 – Books published between 2000 and 2005A screenshot of a computer

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Question 8 – ‘economy’ in the title

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Question 9 – Group by genre, order by alphabetic title

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Question 10 – authors who have published at least 3 books

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* I noticed that some authors have repeating names with different nationalities, but since author\_ID is the primary key, I assume these are intentionally different

Question 11 – Business students with 2 or more books borrowed

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Question 12 – Checkout dates for intro to economics

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