

Library Management System - Phase 2:

In phase 2, you will have to create the tables corresponding to the relational schema. For this task, you may use MySQL Workbench. In your report, add a listing of all CREATE TABLE statements. Specify as many constraints (key, referential integrity, Null, etc.) as you can in your relational schema.

Task 1: Create the following tables for the LMS database.

PUBLISHER: Publisher_Name, Phone, Address

LIBRARY_BRANCH: Branch_Id, Branch_Name, Branch_Address

BORROWER: Card_No, Name, Address, Phone

BOOK: Book_Id, Title, Publisher_name

BOOK_LOANS: Book_Id, Branch_Id, Card_No, Date_Out, Due_Date, Returned_date

BOOK_COPIES: Book_Id, Branch_Id, No_Of_Copies

BOOK_AUTHORS: Book_Id, Author_Name

Task 2: Load the data from the text files into the corresponding tables.

Please, keep in mind that you are not allowed to modify or to add the data files in your answer here. After inserting the data run a query to calculate the total number of records per table. Submit a text to explain how you populated the table, the commands, the query command, along with the output of total records per table.

Task 3: Then execute the following queries on the database tables:

Question 1: Insert yourself as a New Borrower. Do not provide the Card_no in your query. [2 points]

Question 2: Update your phone number to (837) 721-8965 [2 points]

Question 3: Increase the number of book_copies by 1 for the 'East Branch' [2 points]

Question 4-a: Insert a new BOOK with the following info: Title: 'Harry Potter and the Sorcerer's Stone' ; Book_author: 'J.K. Rowling' [2 points]

Question 4-b: You also need to insert the following branches:

North Branch	456 NW, Irving, TX 76100
UTA Branch	123 Cooper St, Arlington TX 76101

[1 point]

Question 5: Return all Books that were loaned between March 5, 2022 until March 23, 2022. List Book title and Branch name, and how many days it was borrowed for. [10 points]

Question 6: Return a List borrower names, that have books not returned. [3 points]

Question 7: Create a report that will return all branches with the number of books borrowed per branch separated by if they have been returned, still borrowed, or late.

[15 points]

Question 8: What is the maximum number of days a book has been borrowed. [2 points]

Question 9: Create a report for Ethan Martinez with all the books they borrowed. List the book title and author. Also, calculate the number of days each book was borrowed for and if any book is late in return date. Order the results by the date_out.

[6 points]

Question 10: Return all borrowers and their addresses that borrowed a book. [3 points]

Do not forget to appropriately name the attributes of your queries.

For this phase, you need to submit only **ONE** document file (.pdf or .docx) with:

- Task 1 commands, and if you have any comments to add, e.g., how you decided on specific data types, or constraints etc. [20 points]

- For task 2, describe your methodology, paste your commands (text), and let us know if there were any challenges. [20 points]

- For task 3, type the question description, your query text, a screenshot of the query output, and the total number of records returned or affected. Also, let us know if there were any challenges. Note that your query has to be editable. [50 points]

- Don't forget to type the honor code. [10 points]

Name your file as teammate1lastname_teammate2lastname.docx. Make sure that your document looks professional.

All students are expected to include the honor code on the first page of their assignment. Failing to do so will cost 10 points.

HONOR CODE
I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.
I promise that I will submit only work that I personally create or that I contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

STUDENTS ARE REQUIRED TO NOT SHARE ANY OF THE PROJECT RELATED DOCUMENTS AND SOLUTION WITH OTHERS IN ANY WAY OR FORM EVEN AFTER THE COMPLETION OF THE PROJECT. STUDENTS MAY, HOWEVER, SHOW THEIR PROJECTS TO INTERVIEWERS.