**DATABASE MANAGEMENT SYSTEM**

**PROGRAM 1**

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**CLASS: 4TH SEM A SEC**

**Database Schema for a Student Library scenario**

**Consider that a database named Student Library is developed by an application software NMITSoft company. There are 4 tables in the database. Relationship scheme for the tables is as below:**

**Student (Stud\_no : integer,Stud\_name: string)**

**Membership (Mem\_no: integer,Stud\_no: integer)**

**Book (book\_no: integer, book\_name:string, author: string)**

**Iss\_rec (iss\_no:integer, iss\_date: date, Mem\_no: integer, book\_no: integer)**

**For the above schema, perform the following**

**a) Create the tables with the appropriate integrity constraints**

**b) Insert around 10 records in each of the tables**

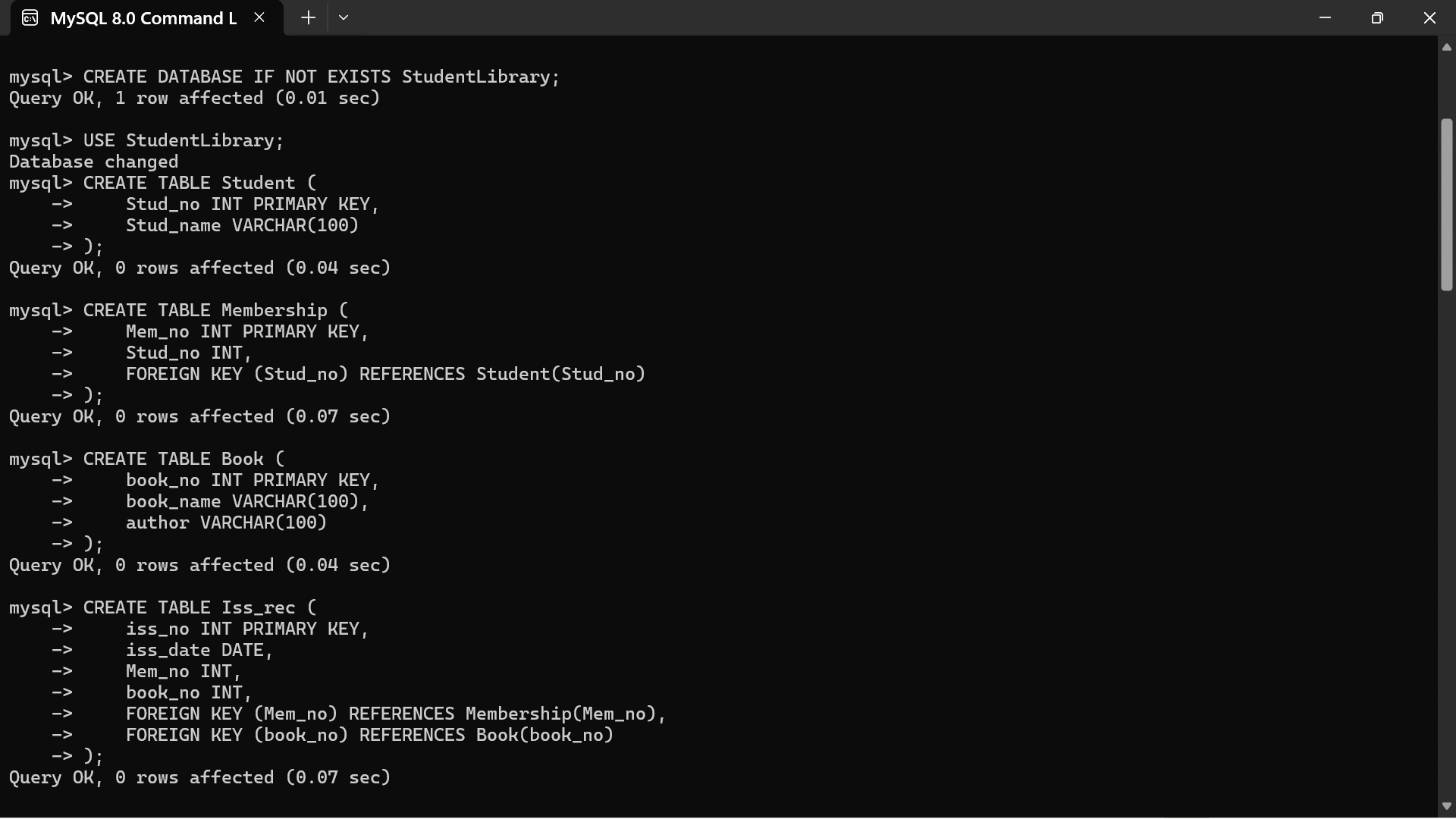
**c) List all the student names with their membership numbers**

**d) List all the issues for the current date with student and Book names**

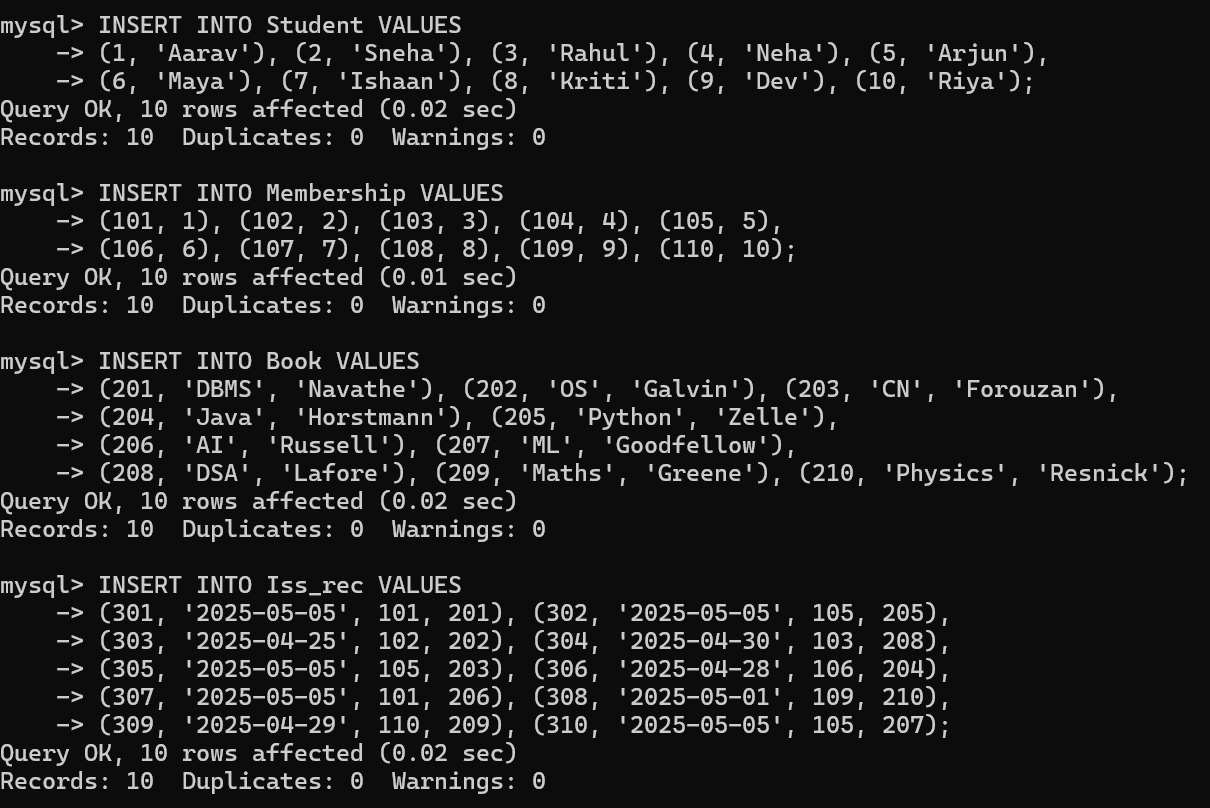
**e) Give a count of how many books have been bought by each student**

**f) Give a list of books taken by student with stud\_no as 5**

**a) Create the tables with the appropriate integrity constraints**

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**b) Insert around 10 records in each of the tables**

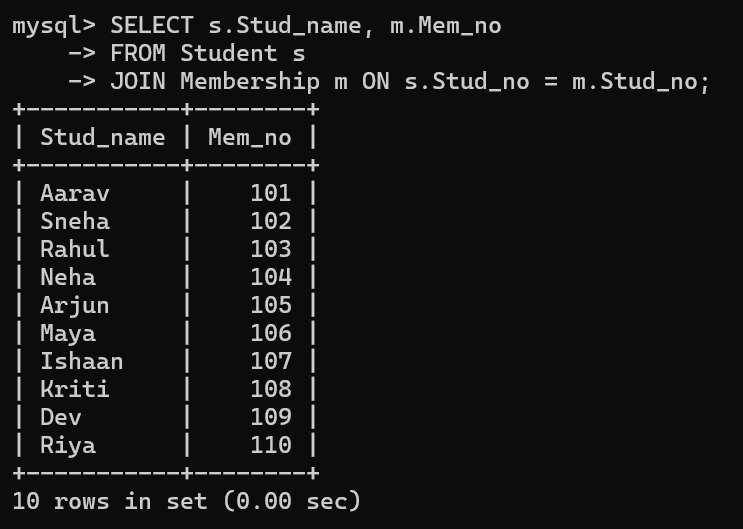
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**c) List all the student names with their membership numbers**

**SELECT s.Stud\_name, m.Mem\_no**

**FROM Student s**

**JOIN Membership m ON s.Stud\_no = m.Stud\_no;**

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**d) List all the issues for the current date with student and Book names**

**SELECT s.Stud\_name, b.book\_name**

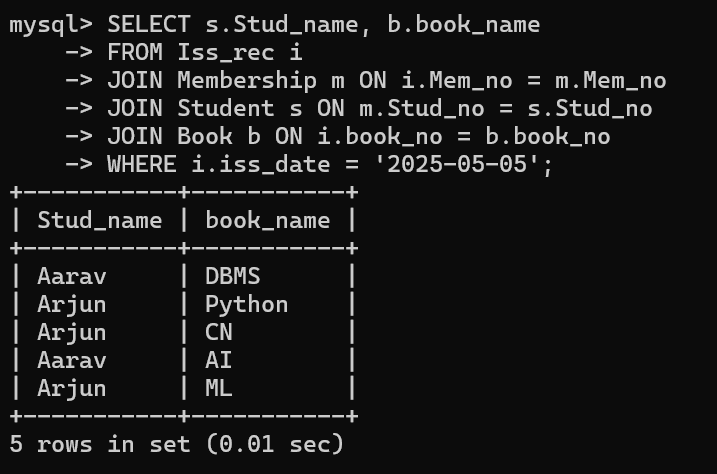
**FROM Iss\_rec i**

**JOIN Membership m ON i.Mem\_no = m.Mem\_no**

**JOIN Student s ON m.Stud\_no = s.Stud\_no**

**JOIN Book b ON i.book\_no = b.book\_no**

**WHERE i.iss\_date = '2025-05-05';**

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**e) Give a count of how many books have been bought by each student**

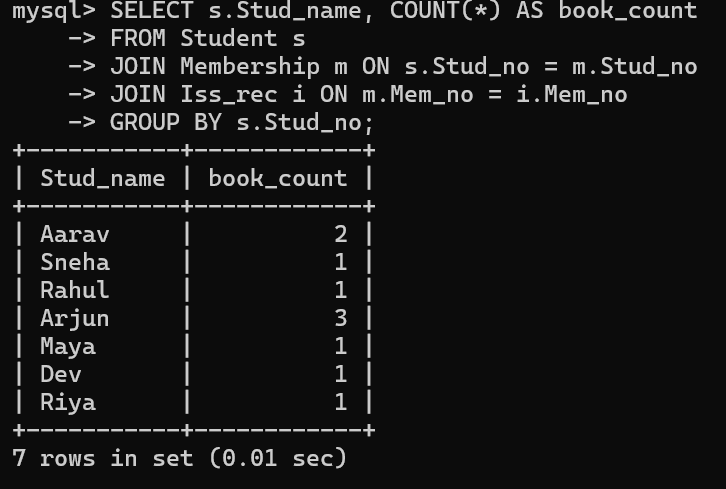
**SELECT s.Stud\_name, COUNT(\*) AS book\_count**

**FROM Student s**

**JOIN Membership m ON s.Stud\_no = m.Stud\_no**

**JOIN Iss\_rec i ON m.Mem\_no = i.Mem\_no**

**GROUP BY s.Stud\_no;**

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**F) Give a list of books taken by student with stud\_no as 5**

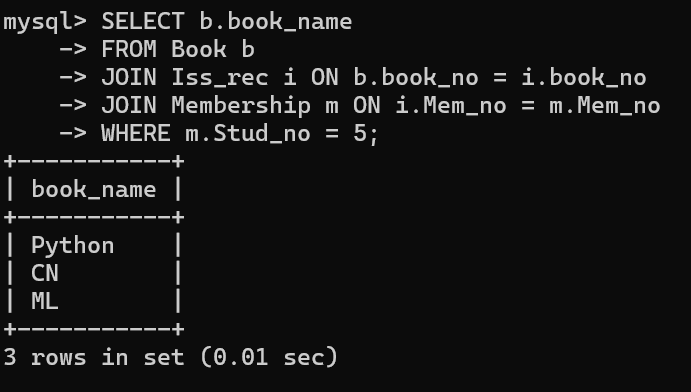
**SELECT b.book\_name**

**FROM Book b**

**JOIN Iss\_rec i ON b.book\_no = i.book\_no**

**JOIN Membership m ON i.Mem\_no = m.Mem\_no**

**WHERE m.Stud\_no = 5;**

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