

LAB II

In Lab 2 and Lab 3, we will work with a relational database of a book exchange system in XYZ University. The database records information about students, books they own and books they borrow from other students.

Create the tables using the file Schema.sql. Populate the tables using the files Student.sql, Book.sql, Copy.sql and Loan.sql. Understand the database schema. If you use Microsoft SQL Server, you can create a graph (right click Database Diagram and then New Database Diagram) to visualize the database schema.

1. Find the emails of students.
2. Find the distinct emails of students.
3. Print the names of students in descending alphabetical order.
4. Are there students with the same name? Show your result.
5. Find the distinct names of students. Is the result sorted? If you use Microsoft SQL Server, look at the execution plan.
6. Find the names of students who owned a copy of book '978-0262033848'. Show your result.
7. Find the names of students who owned a copy of book with more than 100 pages whose title contains the word 'Computer'. Show your result.
8. Find the number of A4 pages needed to photocopy the two books with ISBN-13 '978-0262033848' and '978-0321295354' (2-sided copying).
9. Find the distinct names of students who owned a copy of a book that is different from book '978-0262033848'.
10. Find the names of students who borrowed a copy of book '978-0262033848'.
11. Find the names of students who owned or borrowed a copy of book '978-0262033848'. Use UNION.
12. Find the names of students who owned or borrowed a copy of book '978-0262033848'. USE OR.
13. Delete all the data in table loan (do not drop the table). Try again query 11 and 12. Explain your finding.