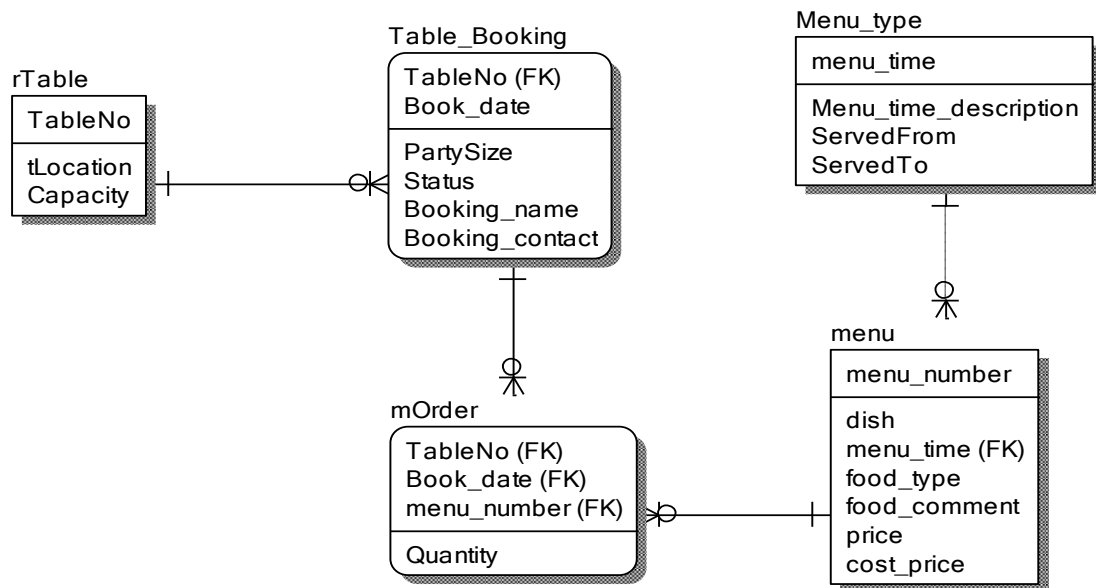


Practice for start of module quiz Databases 2



Description: The restaurant takes bookings, but tables are not always booked in advance. If a table is booked in advance, then the name of the person booking the table and their contact number is recorded, as is the date and time of the booking. The table_booking has a status of 'B' for Booked until the party of diners has arrived. When the table is occupied, the table_booking has a status of 'O' for occupied. If the table is free and people come in to eat, no names are taken, but the size of the party (number of diners) is recorded against the table. The book_date is the date and time the booking is added. When the party of diners has paid, the table_booking status changes to 'P' for paid.

Aggregation:

1. Write SQL to display the number of 'bookings' we have that resulted from walk-ins, rather than pre-booked meals.
2. Write SQL to display the number of times Quaverly has booked in the last 6 months.
3. Write SQL to display the names of all clients who have booked more than twice, ensuring that you don't return walk-ins.

Sets; UNION, INTERSECT, MINUS

4. Using a SET operation, display the names of dishes that appear on either the Early Bird (EBIRD) or dinner (DNNER) menu
5. Using a SET operation, display the names of dishes that appear on both the Early Bird (EBIRD) and the dinner (DNNER) menu
6. Using a SET operation, display the names of dishes that appear on the dinner (DNNER) menu but not on the Early Bird (EBIRD) menu.

Joins

7. Display the location of any table that ordered a menu item that appears on the menu for the menu time described as 'Early Bird'.
8. Using a join, list full details of all tables that have never been booked.
9. Using a join, list full details of all tables that have been booked.

Sub-queries

10. Using a sub-query, list full details of tables that have never been booked.
11. Using a sub-query, list full details of tables that have been booked.
12. List the name and profit made by each dish that has made more than the average profit for a dish. (Profit = price – cost_price);

Combinations

13. Return the name of each diner and the amount he / she spent.

Practice for start of module quiz Databases 2

Tutorial sheet for Advanced Query processing

Contents of BOOK table

BOOK_CODE	TITLE
CBEGG	Connolly and Begg
Fowler	Refactoring in UML
Elmasri	Elmasri and Navathe
Flint	Java for Beginners

Contents of TOPIC table

TOPIC_CODE	TOPIC_DESCRIPTION
DB	Databases
SE	Software Engineering

Contents of COVER table

BOOK_CODE	TOPIC_CODE
CBEGG	DB
Elmasri	DB
Elmasri	SE
Fowler	SE

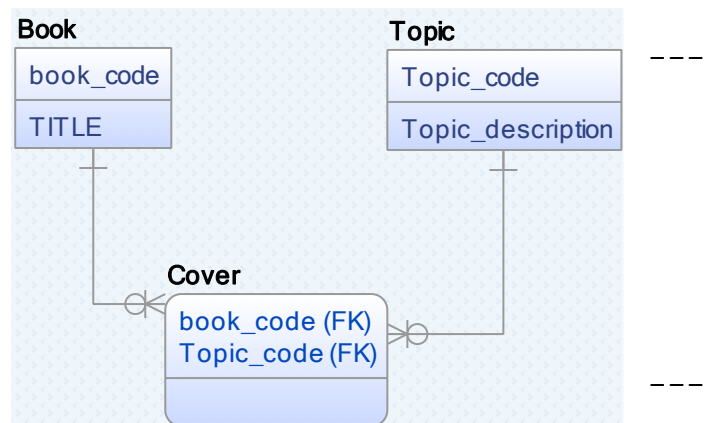


Figure 1 ERD for Book-cover-topic. Code available in webcourses

Queries to answer

1. Return the title of Books that cover Databases topics.
2. Return the title of Books that only cover Databases topics.
3. Return the title of Books that cover all types of topics.
4. Return the title of Books who don't cover listed topics.
5. Return the title of Books that cover Databases topics and Software Engineering topics.
6. Return the title of Books that cover Databases topics but not Software Engineering topics.
7. Return the title of Books that cover either Databases topics or Software Engineering topics.
8. Return the title of Books that cover either Databases topics or Software Engineering topics, but not both.