

Library Database – JOIN Queries

1. Display library ID, name, and the name of the manager.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure, including the 'librarydb' database. The SQL Query window in the center contains the following query:

```
SELECT DISTINCT memberid FROM loan

);

SELECT
    l.libraryid,
    l.name AS LibraryName,
    s.fullname AS ManagerName
FROM library l
JOIN staff s
ON l.libraryid = s.libraryid
WHERE s.position = 'Manager';
```

The Results window at the bottom displays the output of the query, showing a single row with the following data:

libraryid	LibraryName	ManagerName
2	Science Library	Mohammed Saad

2. Display library names and the books available in each one.

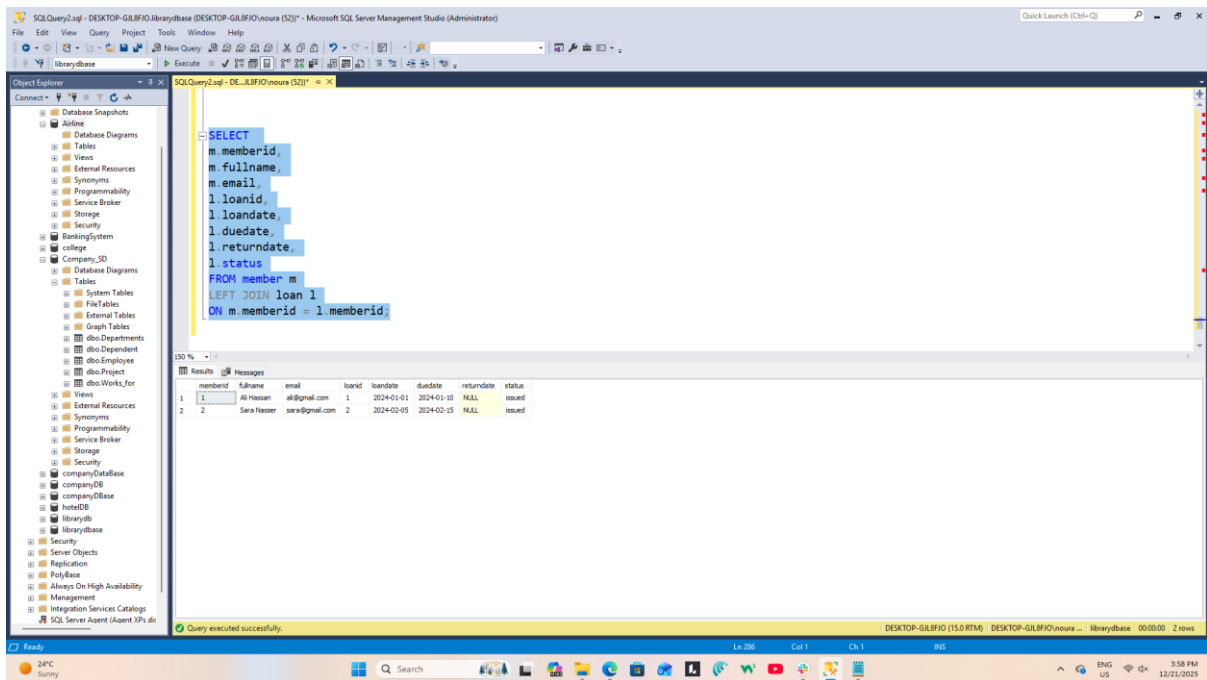
The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left displays the database structure, including the 'librarydb' database. The SQL Query window in the center contains the following query:

```
SELECT
    l.name AS LibraryName,
    b.title AS BookTitle
FROM library l
JOIN book b
ON l.libraryid = b.libraryid;
```

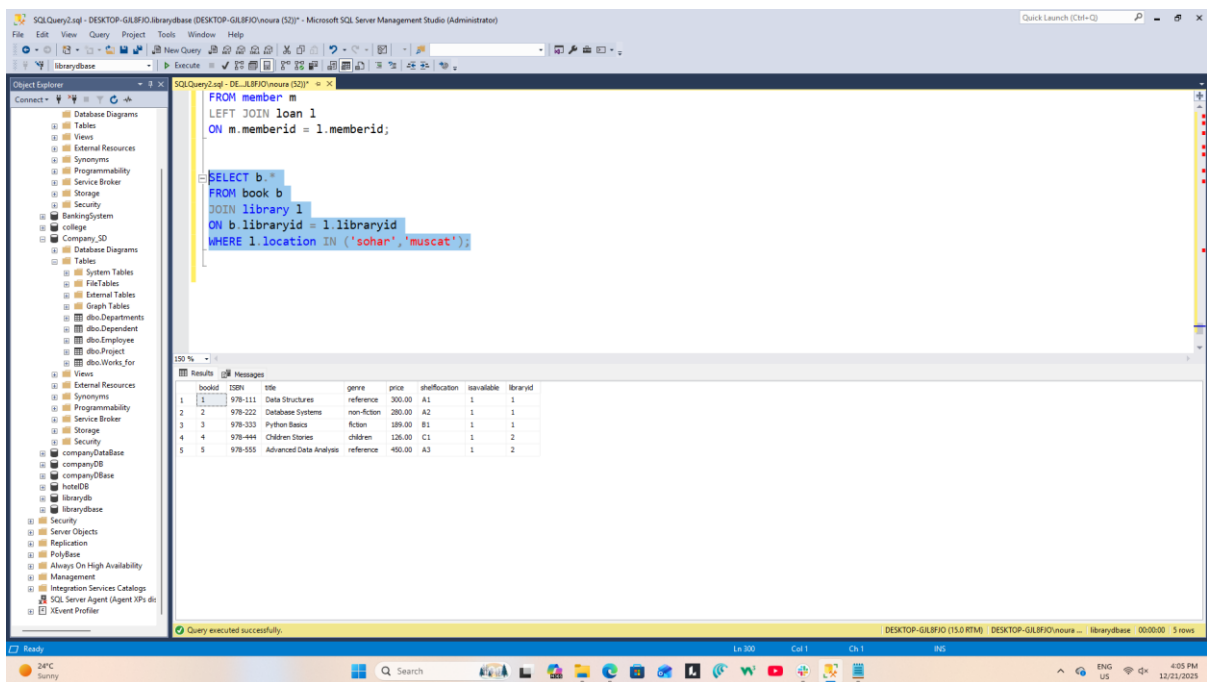
The Results window at the bottom displays the output of the query, showing five rows of data:

LibraryName	BookTitle
Central Library	Data Structures
Central Library	Database Systems
Central Library	Python Basics
Science Library	Children Stories
Science Library	Advanced Data Analysis

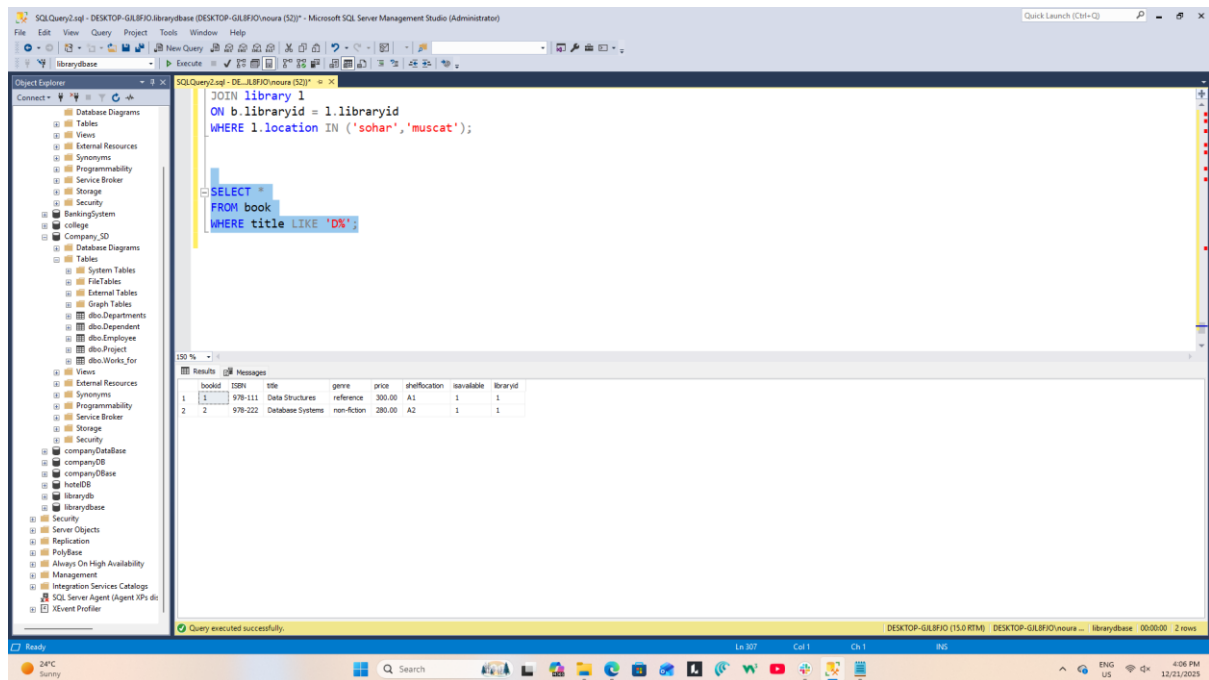
3. Display all member data along with their loan history.



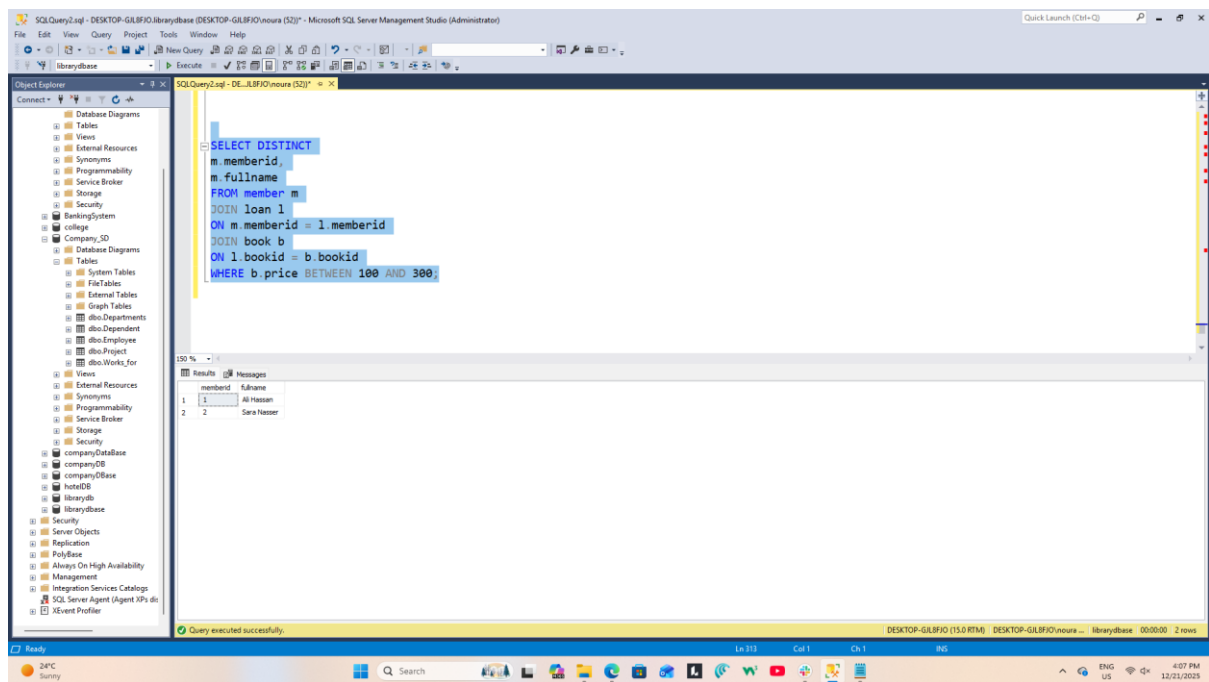
4. Display all books located in 'Sohar or Muscat'



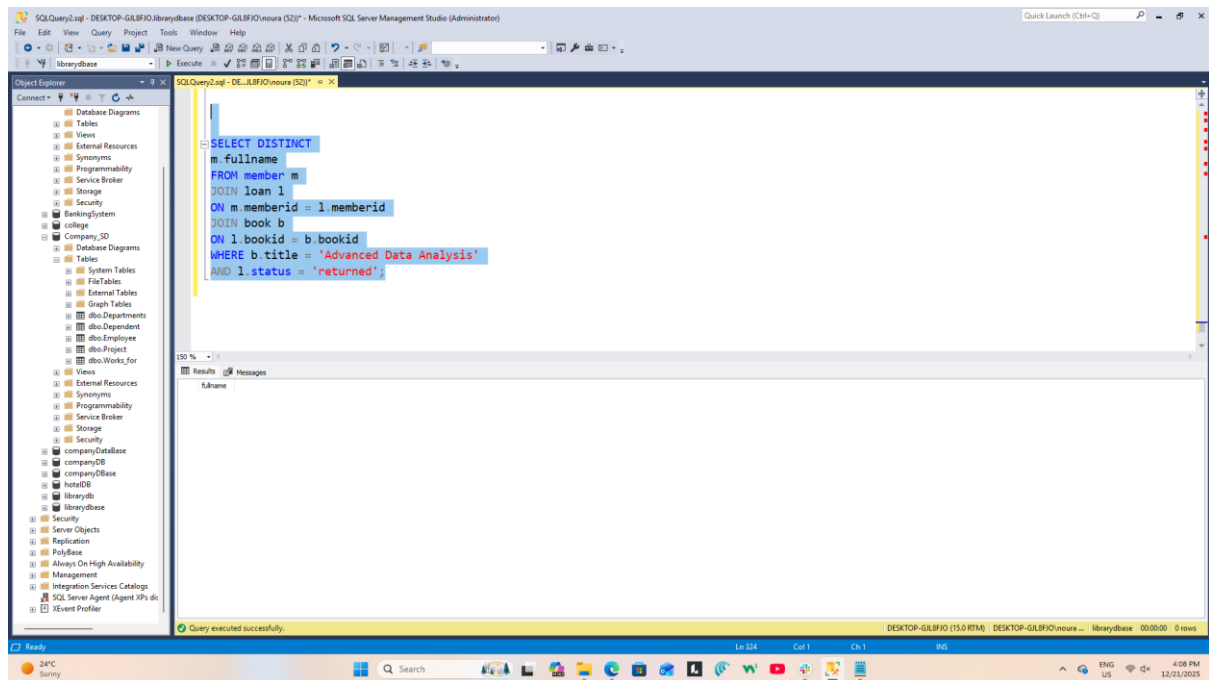
5. Display all books whose titles start with 'D'.



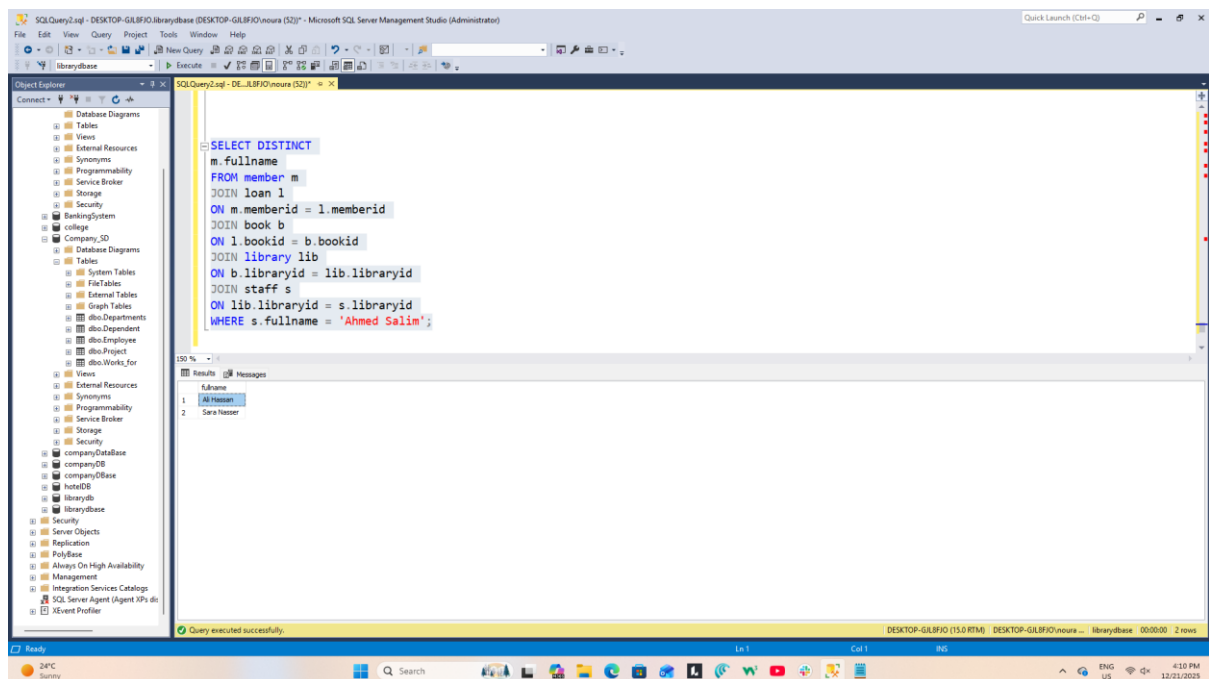
6. List members who borrowed books priced between 100 and 300 LE.



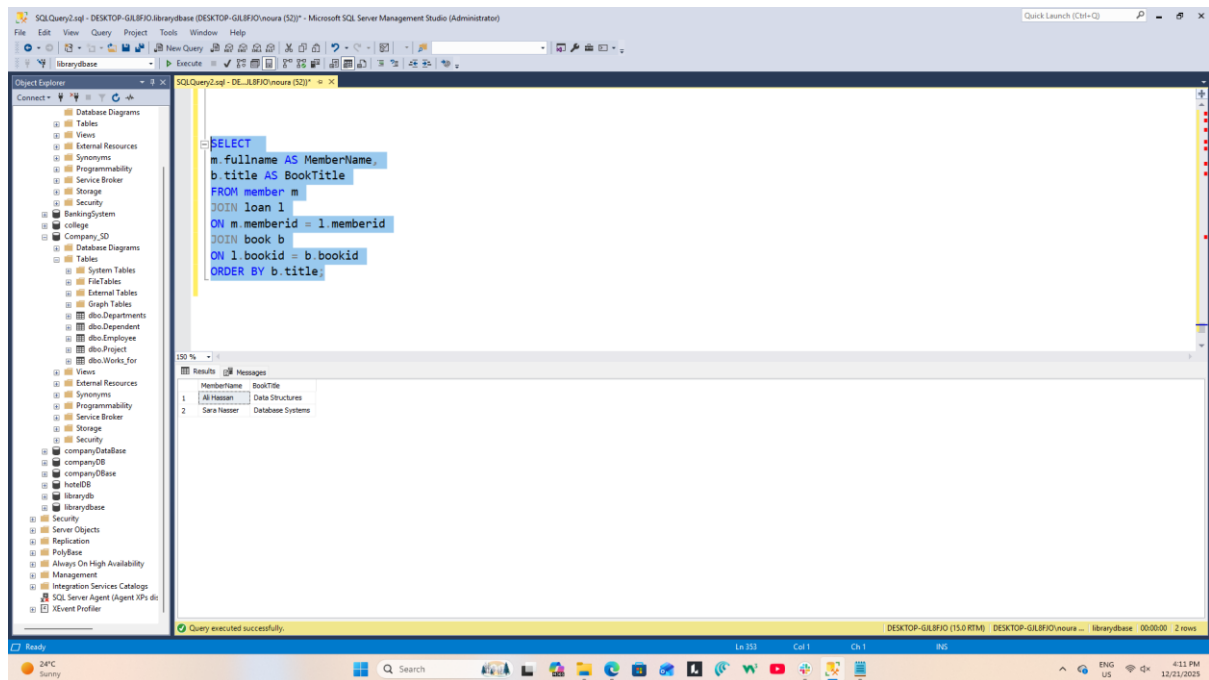
7. Retrieve members who borrowed and returned books titled ' Advanced Data Analysis '.



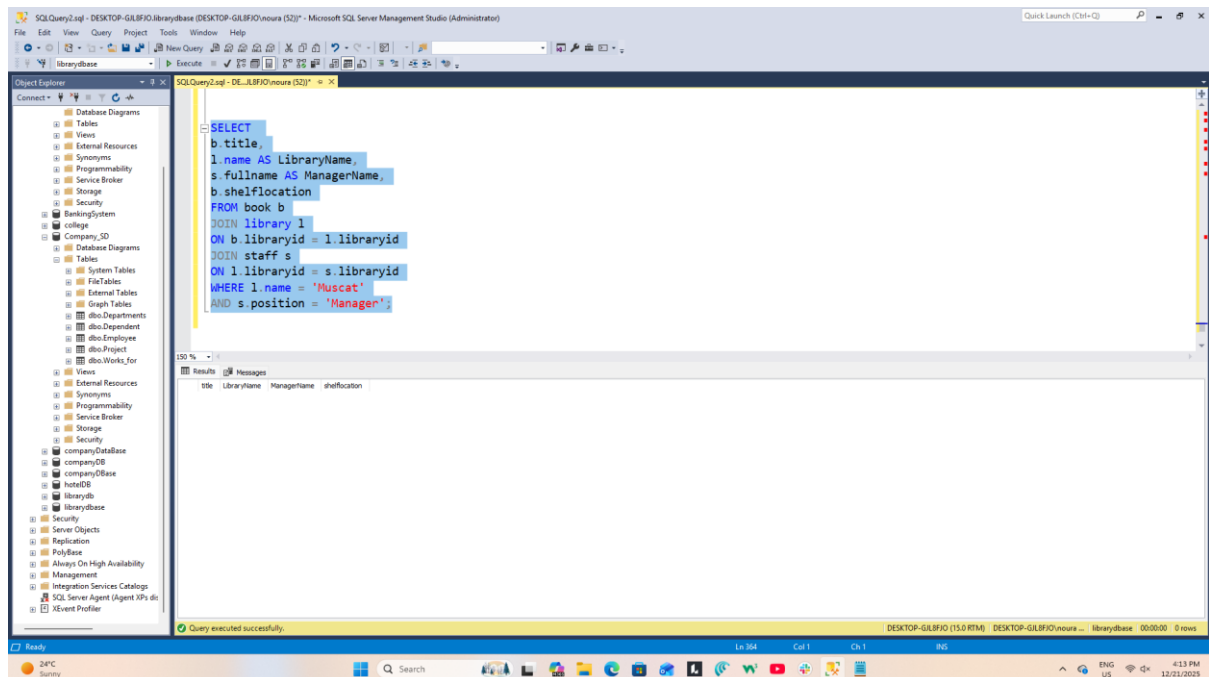
8. Find all members assisted by librarian " Ahmed Salim ".



9. Display each member's name and the books they borrowed, ordered by book title.



10. For each book located in 'Muscat Branch', show title, library name, manager, and shelf info.



11. Display all staff members who manage libraries.

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with a tree view of the database structure. The right pane shows a SQL query window with the following query:

```
SELECT  
s.staffid,  
s.fullname,  
s.position,  
l.name AS LibraryName  
FROM staff s  
JOIN library l  
ON s.libraryid = l.libraryid  
WHERE s.position = 'Manager';
```

Below the query window, the 'Results' pane displays the output of the query:

staffid	fullname	position	LibraryName
3	Mohammed Said	Manager	Science Library

The status bar at the bottom indicates 'Query executed successfully' and '1 rows'.

12. Display all members and their reviews, even if some didn't submit any review yet

The screenshot shows the SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with a tree view of the database structure. The right pane shows a SQL query window with the following query:

```
SELECT  
m.fullname,  
r.rating,  
r.comments,  
r.reviewdate  
FROM member m  
LEFT JOIN review r  
ON m.memberid = r.memberid;
```

Below the query window, the 'Results' pane displays the output of the query:

fullname	rating	comments	reviewdate
Ali Hassan	5	no comments	2024-01-06
Sara Nasser	4	no comments	2024-02-12

The status bar at the bottom indicates 'Query executed successfully' and '2 rows'.