```sql
SELECT student_id
FROM issuing
WHERE book_id IN (
   SELECT book_id
   FROM books
   WHERE author = 'Elmasri''
);


SELECT student_id, book_id, issue_date
FROM issuing
WHERE issue_date >= '2025-01-01'
     AND issue_date <= '2025-01-31'
     AND book_id IN (SELECT book_id FROM books WHERE author = 'Elmasri');


SELECT student_id, book_id, issue_date
FROM issuing as i
WHERE issue_date = (
   SELECT MAX(issue_date)
   FROM issuing as i2
   WHERE i2. student_id = i.student_id
);


SELECT student_id, student_name
FROM students
WHERE student_id IN (
   SELECT student_id
   FROM issuing
   WHERE book_id IN (
      SELECT book_id
      FROM books
      WHERE author IN (
         SELECT author
         FROM books
         WHERE author IN (
            SELECT books. author
            FROM books, issuing
            WHERE books.book_id = issuing.book_id
            GROUP BY books. author
            HAVING COUNT(*) > 3
         )
      )
   )
);
```

Assume Issuing has a history of books issued as well (have an additional issue_id as the primary key, book_id is not the primary key now):

```
SELECT DISTINCT s2.student_id, s2.student_name
FROM issuing i1, issuing i2, students s2
WHERE i1.book_id = i2.book_id AND
i2.student_id = s2.student_id AND
i1.student_id IN (
   SELECT student_id
   FROM issuing i, books b
   WHERE i.book_id = b.book_id AND  b.title = 'Elmasri’
)
AND i2.student_id != i1.student_id;
```

Understand different and probably better (?) way of joining tables:

```
SELECT DISTINCT s1.student_id AS student1, s2.student_id AS student2
FROM issuing i1
JOIN issuing i2 ON i1.book_id = i2.book_id
JOIN students s1 ON i1.student_id = s1.student_id
JOIN students s2 ON i2.student_id = s2.student_id
WHERE s1.student_id < s2.student_id;
```

```
SELECT DISTINCT s3.student_id, s3.student_name
FROM issuing i1
JOIN issuing i2 ON i1.book_id = i2.book_id
JOIN issuing i3 ON i2.student_id = i3.student_id
JOIN students s3 ON i3.student_id = s3.student_id
WHERE i1.student_id = 10
AND i3.book_id NOT IN (
   SELECT book_id FROM issuing WHERE student_id = 10
)
AND i3.student_id != i1.student_id;
```

```
SELECT DISTINCT s3.student_id, s3.student_name
FROM issuing i1
JOIN issuing i2 ON i1.book_id = i2.book_id
JOIN students s3 ON i2.student_id = s3.student_id
WHERE i1.student_id IN (
    SELECT DISTINCT i3.student_id
    FROM issuing i3
    WHERE i3.book_id IN (
        SELECT book_id
        FROM issuing
        GROUP BY book_id
        HAVING COUNT(DISTINCT student_id) = 1
    )
)
AND s3.student_id != i1.student_id;
```