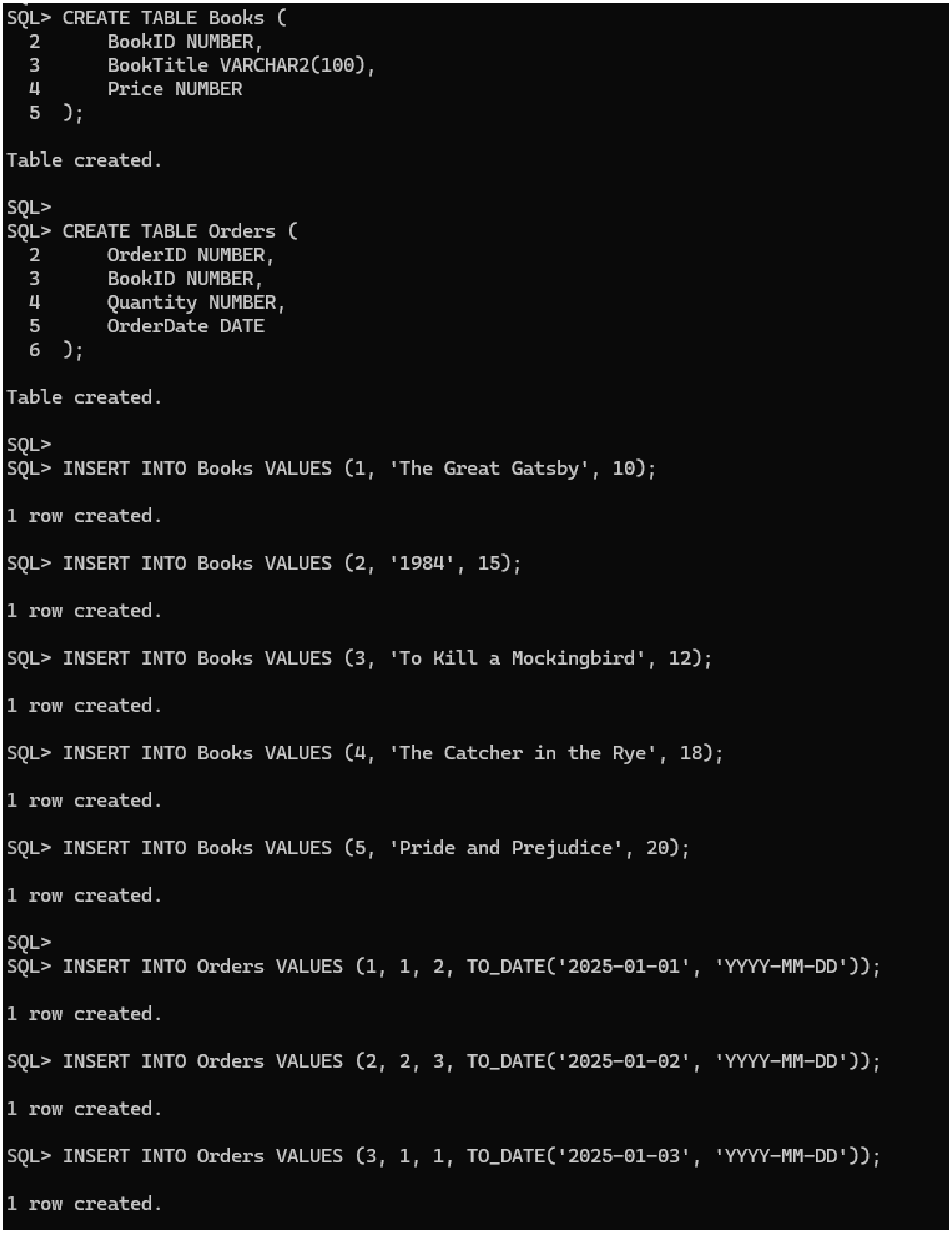
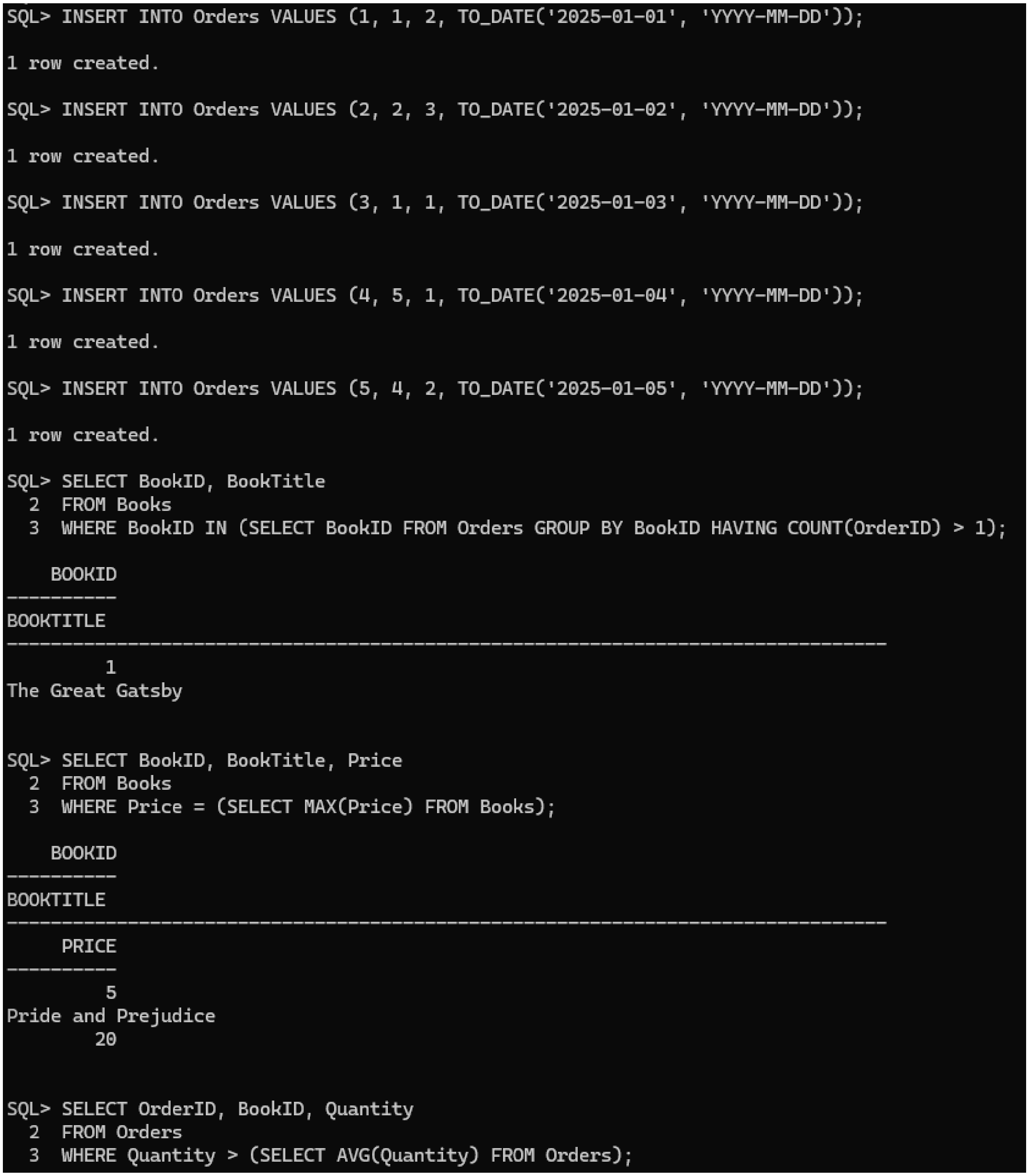
Write and execute SQL queries- subqueries, joins.

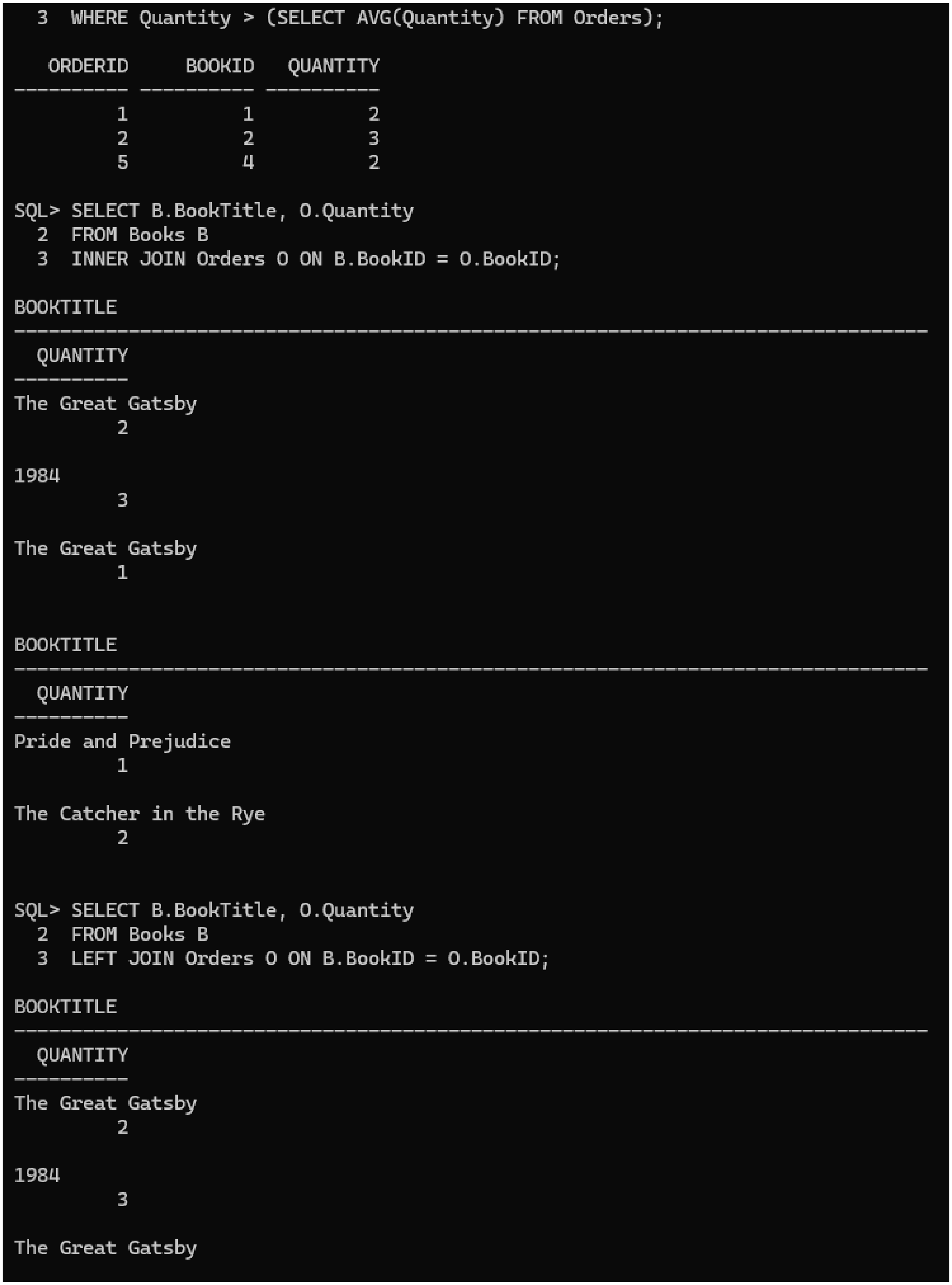
Aishi De



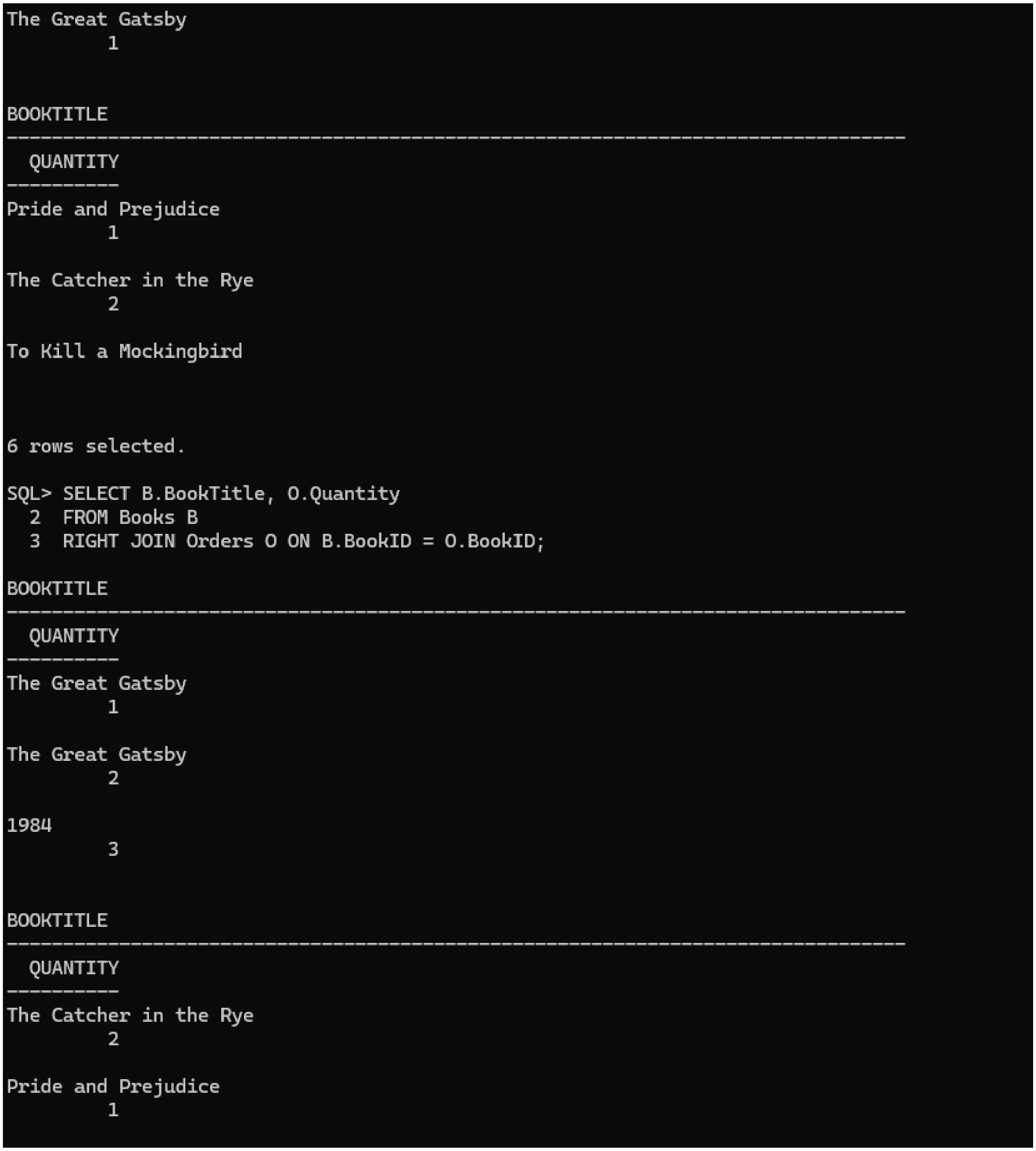
```
SQL> CREATE TABLE Books (
         BookID NUMBER,
         BookTitle VARCHAR2(100),
         Price NUMBER
     );

Table created.

SQL>
SQL> CREATE TABLE Orders (
         OrderID NUMBER,
         BookID NUMBER,
         Quantity NUMBER,
         OrderDate DATE
     );

Table created.

SQL>
SQL> INSERT INTO Books VALUES (1, 'The Great Gatsby', 10);

1 row created.

SQL> INSERT INTO Books VALUES (2, '1984', 15);

1 row created.

SQL> INSERT INTO Books VALUES (3, 'To Kill a Mockingbird', 12);

1 row created.

SQL> INSERT INTO Books VALUES (4, 'The Catcher in the Rye', 18);

1 row created.

SQL> INSERT INTO Books VALUES (5, 'Pride and Prejudice', 20);

1 row created.

SQL>
SQL> INSERT INTO Orders VALUES (1, 1, 2, TO_DATE('2025-01-01', 'YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Orders VALUES (2, 2, 3, TO_DATE('2025-01-02', 'YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Orders VALUES (3, 1, 1, TO_DATE('2025-01-03', 'YYYY-MM-DD'));

1 row created.
```



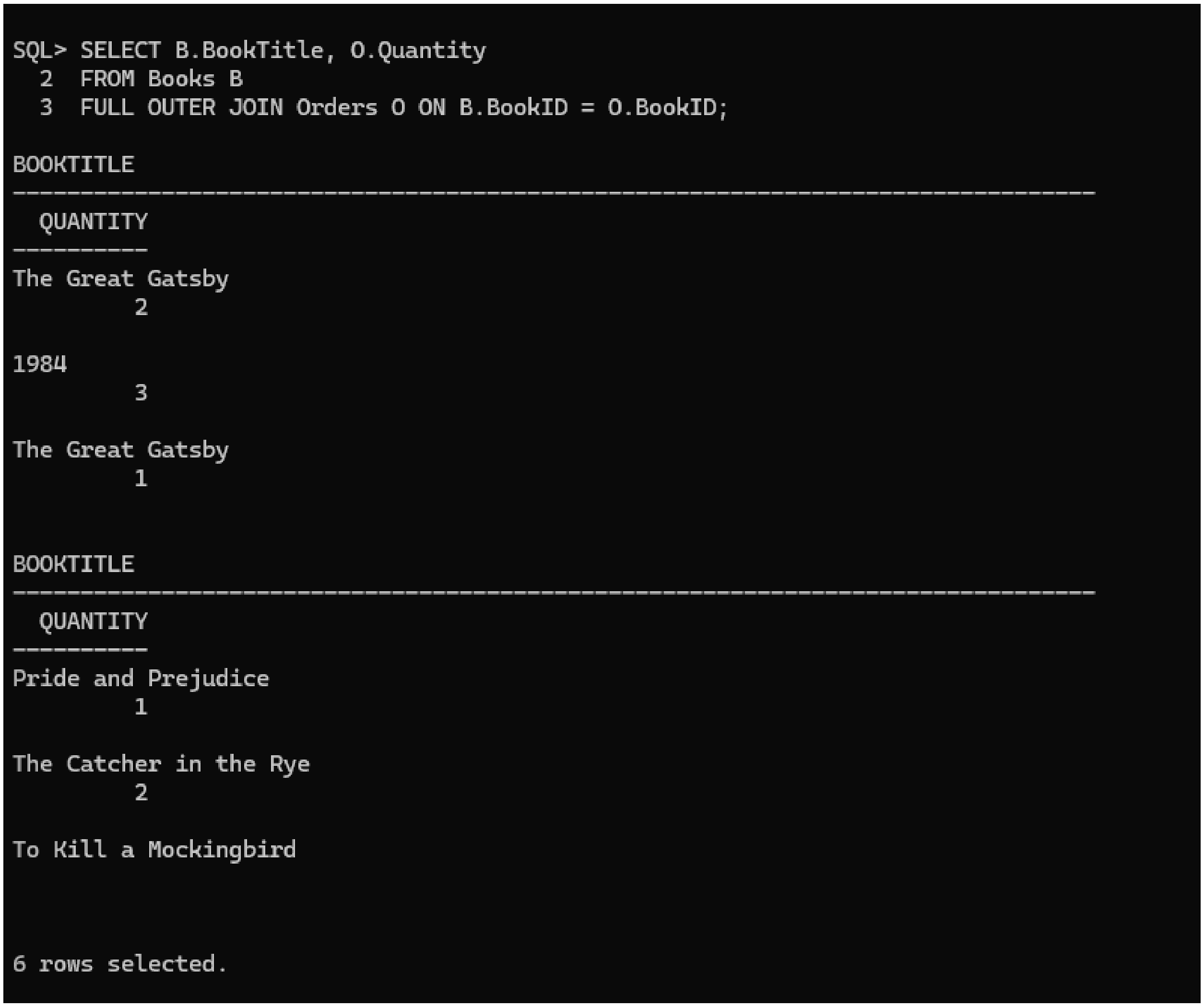
```
SQL> INSERT INTO Orders VALUES (1, 1, 2, TO_DATE('2025-01-01', 'YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Orders VALUES (2, 2, 3, TO_DATE('2025-01-02', 'YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Orders VALUES (3, 1, 1, TO_DATE('2025-01-03', 'YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Orders VALUES (4, 5, 1, TO_DATE('2025-01-04', 'YYYY-MM-DD'));

1 row created.

SQL> INSERT INTO Orders VALUES (5, 4, 2, TO_DATE('2025-01-05', 'YYYY-MM-DD'));

1 row created.

SQL> SELECT BookID, BookTitle
  2  FROM Books
  3  WHERE BookID IN (SELECT BookID FROM Orders GROUP BY BookID HAVING COUNT(OrderID) > 1);

    BOOKID
----------
BOOKTITLE
--------------------------------------------------------------------------------
         1
The Great Gatsby


SQL> SELECT BookID, BookTitle, Price
  2  FROM Books
  3  WHERE Price = (SELECT MAX(Price) FROM Books);

    BOOKID
----------
BOOKTITLE
--------------------------------------------------------------------------------
     PRICE
----------
         5
Pride and Prejudice
        20


SQL> SELECT OrderID, BookID, Quantity
  2  FROM Orders
  3  WHERE Quantity > (SELECT AVG(Quantity) FROM Orders);
```



```
  3  WHERE Quantity > (SELECT AVG(Quantity) FROM Orders);

   ORDERID     BOOKID   QUANTITY
---------- ---------- ----------
         1          1          2
         2          2          3
         5          4          2

SQL> SELECT B.BookTitle, O.Quantity
  2  FROM Books B
  3  INNER JOIN Orders O ON B.BookID = O.BookID;

BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
The Great Gatsby
         2

1984
         3

The Great Gatsby
         1


BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
Pride and Prejudice
         1

The Catcher in the Rye
         2


SQL> SELECT B.BookTitle, O.Quantity
  2  FROM Books B
  3  LEFT JOIN Orders O ON B.BookID = O.BookID;

BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
The Great Gatsby
         2

1984
         3

The Great Gatsby
```



```
The Great Gatsby
         1


BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
Pride and Prejudice
         1

The Catcher in the Rye
         2

To Kill a Mockingbird



6 rows selected.

SQL> SELECT B.BookTitle, O.Quantity
  2  FROM Books B
  3  RIGHT JOIN Orders O ON B.BookID = O.BookID;

BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
The Great Gatsby
         1

The Great Gatsby
         2

1984
         3


BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
The Catcher in the Rye
         2

Pride and Prejudice
         1
```



```
SQL> SELECT B.BookTitle, O.Quantity
     FROM Books B
     FULL OUTER JOIN Orders O ON B.BookID = O.BookID;

BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
The Great Gatsby
         2

1984
         3

The Great Gatsby
         1


BOOKTITLE
--------------------------------------------------------------------------------
  QUANTITY
----------
Pride and Prejudice
         1

The Catcher in the Rye
         2

To Kill a Mockingbird



6 rows selected.
```