COMP 3610 Exercises for JOINs and GROUP BY

Materials:
Oracle 11g SQL book CHAPTER 9 JOINs,
Oracle 11g SQL book CHAPTER 11 GROUP BY

Please use tables:
PATRONS, TRANSACTIONS, BOOKS (from SQLDeveloper's tutorial)

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books (book_id, title, author_last_name, author_first_name, rating)

patrons (patron_id, last_name, first_name, street_address, city_state_zip, location)

transactions (transaction_id, patron_id, book_id, transaction_date, transaction_type)

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1. List the patrons (only patron_id) and their total number of transactions (GROUP BY, COUNT).

2. Add the data to the Transactions table. Borrow a book (transaction type = 1) and return (transaction type = 2) in 2015. List the transactions for this year (use SYSDATE) and group them by transaction type.

3. List (write query) the patrons (patron_id, last_name, first_name) and their total number of transactions. This list will include only the patrons who have at least one transaction (INNER JOIN,   GROUP BY… COUNT)

4. List (write query) all patrons (patron_id, last_name, first_name) and their total number of transactions. Include also the patrons who have no transactions. (method1: OUTER JOIN method 2: UNION). Add data to test the query.

5. List the transaction (transaction_id, book_id, title) for the books with high rating (rating = 10) for the last 2 years (use SYSDATE).

6. Add two books by Joan Casteel   "Oracle 11g SQL" and "Oracle 11g PL/SQL".

    a. Write a query to list each author (first and last name) and their total number of books.
    b. Write a query to list only the authors (first and last name) who have more than one book.

7. List the books (book_id, title) without transactions.