Lab 5: SQL Continued

- Find the name of the patron who has checked out the most books.

```
SELECT p.Name FROM Patrons p JOIN CheckedOut c ON p.CardNum = c.CardNum GROUP
BY p.Name ORDER BY COUNT(*) DESC LIMIT 1;
```

- Find the Titles of all books that were written by an author whose name starts with 'K'. You can assume author names always start with an uppercase letter

```
SELECT t.Title FROM Titles t WHERE t.Author LIKE 'K%';
```

- Find the Authors who have written more than one book. Assume that two Authors with the same name are the same Author for this query.

```
SELECT t.Author FROM Titles t GROUP BY t.Author HAVING COUNT(*) > 1;
```

- Find the Authors for which the library has more than one book in inventory (this includes multiple copies of the same book). Assume that two Authors with the same name are the same Author for this query.

```
SELECT t.Author FROM Inventory i JOIN Titles t ON i.ISBN = t.ISBN GROUP BY t.Author
HAVING COUNT(*) > 1;
```

- The library wants to implement a customer loyalty program based on how many books each patron has checked out. Provide an SQL query that returns the names, number of books they have checked out, and loyalty level of each Patron. The loyalty level should be the string "Platinum" if they have checked out > 2 books, "Gold" if they have 2 books, "Silver" if they have 1 book, and "Bronze" if they have no books. Hint: remember that NULL represents an unknown in SQL (it does not represent 0).

```
SELECT p.Name,
    ->      COALESCE(COUNT(c.Serial), 0) AS BooksCheckedOut,
    ->      CASE
    ->          WHEN COUNT(c.Serial) > 2 THEN 'Platinum'
```

```
->             WHEN COUNT(c.Serial) = 2 THEN 'Gold'
->             WHEN COUNT(c.Serial) = 1 THEN 'Silver'
->             ELSE 'Bronze'
->         END AS LoyaltyLevel
-> FROM Patrons p
-> LEFT JOIN CheckedOut c ON p.CardNum = c.CardNum
-> GROUP BY p.CardNum, p.Name;
```