### CODE: The Count Function

```
SELECT COUNT(*) FROM books;

SELECT COUNT(author_fname) FROM books;

SELECT COUNT(DISTINCT author_fname) FROM books;

SELECT COUNT(DISTINCT author_lname) FROM books;

SELECT COUNT(DISTINCT author_lname, author_fname) FROM books;

SELECT title FROM books WHERE title LIKE '%the%';

SELECT COUNT(*) FROM books WHERE title LIKE '%the%';
```

### CODE: The Joys of Group By

```
SELECT title, author_lname FROM books;

SELECT title, author_lname FROM books
GROUP BY author_lname
SELECT author_lname, COUNT(*)
FROM books GROUP BY author_lname;

SELECT title, author_fname, author_lname FROM books;

SELECT title, author_fname, author_lname FROM books GROUP BY author_lname;

SELECT author_fname, author_lname, COUNT(*) FROM books GROUP BY author_lname;

SELECT author_fname, author_lname, COUNT(*) FROM books GROUP BY author_lname, author_fname;

SELECT released_year FROM books;

SELECT released_year, COUNT(*) FROM books GROUP BY released_year;

SELECT CONCAT('In ', released_year, ' ', COUNT(*), ' book(s) released') AS year FROM books GROUP BY released_year;
```

### CODE: MIN and MAX Basics

```
SELECT MIN(released_year)
FROM books;

SELECT MIN(released_year) FROM books;

SELECT MIN(pages) FROM books;

SELECT MAX(pages)
FROM books;

SELECT MAX(released_year)
FROM books;

SELECT MAX(pages), title
FROM books;
```

### CODE: A Problem with Min and Max

# CODE: Using Min and Max with Group By Section 9, Lecture 142

```
SELECT author_fname,
       author_lname,
       Min(released_year)
FROM books
GROUP BY author_lname,
          author_fname;
SELECT
  author_fname,
 author_lname,
 Max(pages)
FROM books
GROUP BY author_lname,
         author_fname;
SELECT
  CONCAT(author_fname, ' ', author_lname) AS author,
  MAX(pages) AS 'longest book'
FROM books
GROUP BY author_lname,
         author_fname;
```

#### CODE: The Sum Function

```
SELECT SUM(pages)
FROM books;
SELECT SUM(released_year) FROM books;
SELECT author_fname,
       author_lname,
       Sum(pages)
FROM books
GROUP BY
   author_lname,
    author_fname;
SELECT author_fname,
       author_lname,
       Sum(released_year)
FROM books
GROUP BY
   author_lname,
   author_fname;
```

### CODE: The Avg Function

```
SELECT AVG(released_year)
FROM books;

SELECT AVG(pages)
FROM books;

SELECT AVG(stock_quantity)
FROM books
GROUP BY released_year;

SELECT released_year, AVG(stock_quantity)
FROM books
GROUP BY released_year;

SELECT author_fname, author_lname, AVG(pages) FROM books
GROUP BY author_lname, author_fname;
```

## CODE: Aggregate Functions Challenges Solution Section 9, Lecture 149

```
SELECT COUNT(*) FROM books;
SELECT COUNT(*) FROM books GROUP BY released year;
SELECT released_year, COUNT(*) FROM books GROUP BY released_year;
SELECT Sum(stock_quantity) FROM BOOKS;
SELECT AVG(released_year) FROM books GROUP BY author_lname, author_fname;
SELECT author_fname, author_lname, AVG(released_year) FROM books GROUP BY author_lname, autho
r_fname;
SELECT CONCAT(author_fname, ' ', author_lname) FROM books
WHERE pages = (SELECT Max(pages) FROM books);
SELECT CONCAT(author_fname, ' ', author_lname) FROM books
ORDER BY pages DESC LIMIT 1;
SELECT pages, CONCAT(author_fname, ' ', author_lname) FROM books
ORDER BY pages DESC;
SELECT released_year AS year,
    COUNT(*) AS '# of books',
    AVG(pages) AS 'avg pages'
FROM books
    GROUP BY released_year;
```