

## Basic SQL

### Basic SELECT Statement

Since you are pretty familiar with the SELECT statement, I will limit my discussion to a few reminders, and talk about a couple new features.

The basic form of the SELECT statement is:

```
SELECT column name(s)
FROM tablename(s)
WHERE condition(s)
```

Remember that if more than one column or table is used, they are separated by commas. The WHERE clause is optional, and if omitted, will return all rows. From a structure standpoint, it is desirable to place each clause (SELECT/FROM/WHERE) on a separate line, although the SQL interpreter will interpret it ok all on one line. Use indentation where appropriate also for readability. Also the use of column aliases, with or without using the AS keyword, can add clarity to the query results. More specifics on the use of column aliases can be found in your textbook. Check out the use of single vs. double quotes.

Two new items of interest are the use of the DISTINCT or UNIQUE keyword, and the use of concatenation when displaying results. Sometimes your query results have duplicate values in a particular column that, depending on the query, serve no useful purpose. This is where the DISTINCT or UNIQUE keyword can be helpful, by placing it right after the SELECT clause. It applies to all columns that are selected.

By using the concatenation operator (two vertical bars called pipes), you can combine the contents of two or more columns together, so that when displayed it looks like a single column. An obvious use of this technique would be combining a first name column and a last name column into a single name column. String literals such as blank space and punctuation characters, and the use of a column alias, can also enhance the display.

### Creating the Sample Databases

In order to complete the lab assignments for this course, a sample database will be created and used. JustLee Books is a bookstore that maintains information about its book inventory, customers and their orders.

To expedite the process of creating the tables and their relationships, and loading the sample data, a tool called a script file will be used. This script file contains all the statements necessary to fully create a functional database, so that we can get right into running SQL statements. You will learn more about the statements contained in the script files in later units.

