SQL Programming – Level 2 Programming Project 07

# Joins - Books

Reminder: read the Project Guidelines document for instructions on how to format and submit your assignments. It may also be advisable for you to consider formatting your output in landscape orientation so that you can better accommodate the ‘wider’ result tables that are formed in these join problems. ***In this problem set, use the JOIN clause to form the equi-joins***. It would also be a good idea to prepare a diagram (ER Model) of the books database before you begin these problems – it’s important to see how the writtenby table factors in to the model.

## Use the Oracle 9i server for questions 1 thru 8.

1. List the book(id, title, and cost) and author(id, name) info for all books in the collection. [42 rows]
2. List the book(id, title, and cost) and author(id, name) info for all books in the collection, that cost less than $10. [5 rows]
3. List the book(id, title, and cost) and author(id, name) info for all books in the collection, that cost more than the average book cost. [23 rows]
4. List the book(id, title, and cost) and author(id, name) info for all books in the collection, that cost between $13 and the average book cost. [9 rows]
5. List the book(id, title, and cost) and author(id, name) info for all books in the collection, that don't reside at HOME. [4 rows]
6. List the book(id, title, and cost) and author(id, name) and publisher(id, name) info for all books in the collection. [42 rows]
7. List the book(id, title, and cost) and author(id, name) and publisher(id, name) info for all books in the collection, written by an author whose last name starts with a letter in the first half of the alphabet (ie. A -> M). [39 rows]

## Use the Oracle 10g server for questions 8 thru 11.

1. List the book(id, title, and cost) and author(id, name) and publisher(id, name) info for all books in the collection, written by an author whose name includes a double vowel sequence. In your solution, I want you to use a regular expression to identify the double vowel sequence (eg., ‘ie’, ‘oo’, ‘ai’, … Note: there are 5 \* 5 = 25 possible double vowel sequences in English).
2. List the book(id, title, and cost) and author(id, name) and publisher(id, name) info for all books in the collection, with a copyright year older than your instructor (ie. before 1975 :-). [4 rows]
3. List the book(id, title, and cost) and author(id, name) and publisher(id, name) info for all coauthored books in the collection. (2 pts). [4 rows]

## Use the MySQL server for the remaining questions.

1. List the book(id, title, and cost) and author(id, name) info for all books in the collection, that cost more than the average book price, but less than $23. [9 rows]
2. List the book(id, title, and cost) and author(id, name) info for all books in the collection, that were writtenby an author whose last name starts with the letter ‘C’. [16 rows]
3. ***Analysis***. Why are the number of rows in the result sets for questions 1 and 6 the same? Question 6 requires you to join 4 tables, and question 1 requires you to join 3 tables, so why aren’t there more rows in the result set for question 6?
4. ***Analysis***. Explain the purpose of the writtenby table. Why is this table needed? Is there any new information in this table that isn’t already present in the Author and Book tables? So what’s it’s purpose? What does it allow us to do that we can’t do with just the Author and Book tables?