

MySQL

Practice – 4

Overview

This practice enables your understand of creating groups and using group functions for their manipulation.

Understand how group functions differ from single-row functions.

Learn how to create groups of data.

Understand the usage or ROLLUP and LIMIT modifiers.

Learn how to restrict groups.

Hands-on

1. Select the “pubs” database which you have created in the previous hands-on session.
2. Write a query which finds the minimum, maximum and average price of the books. Give appropriate names for the columns.
3. Get a count of titles one-by-one
 - a) For all the categories
 - b) For the business category alone.
4. Find the average price per title category rounded to two decimal places. Moreover name the columns as “Book Category” and “Average Price” respectively.
5. Count the titles by type. Name the columns as “Book Category” and “# of Books” respectively. Also ensure that the book type is displayed in title case.
6. Repeat the above query by sorting the number of books in each category in descending order.
7. Find the average price per title category as well as the average price of all the titles. HINT: Use the ROLLUP modifier.
8. Find the top most 2 averaged price books by category.

9. Write a query which gives a count of titles by category for only those categories which are less than 4. Moreover ensure that the data is sorted on the count of titles in descending order.
10. Get a state-wise count of authors. Give appropriate names for the columns. Identify the state which has the highest author count.
11. Find the quantity of sales by each publisher for different titles. Name the columns as “Quantity of Sales” and “Publisher ID” respectively arranged in the descending order of the quantity of sales.
12. Find the total sales by type of titles. Name the columns as “Book Type” and “Qty of Sales” respectively. Make sure the over total sales is also displayed. However in this the “Book Type” column should display “All Types” instead of the word NULL.
13. List out the type of titles where the total quantity sales are
 - a) Less than 10000.
 - b) Greater than or equal to 10000 and less than 25000
 - c) Greater than or equal to 25000.
14. Which are those publisher (by pub_id) whose total quantity of sales is more than 25000
15. Write a query which gives the average price and total quantity sales by type and publisher together. Arrange the columns in the following order: type, pub_id, average price of title, quantity of sales.
16. Repeat the above question with the rollup option and record your observation. Moreover perform the following tasks:
 - a) Give appropriate name to columns like “Book Type”, “Publisher ID”, “Average Price” and “Qty of Sales” respectively.
 - b) Make sure the average price is rounded of two decimal places.
 - c) Ignore the row if the price or the year quantity of sales is NULL.
 - d) In the ROLLUP option if the “Book Type” is NULL it reflects “All Types” of book.
 - e) However if the “Publisher ID” column has a NULL it data in that row refers to sub-group. Thus have “====>” instead of a NULL.