 

Homework

* 1. : Using GROUP BY and HAVING Clauses

## Vocabulary

HAVING = Used to specify which groups are to be displayed; restricts groups that do not meet group criteria

GROUP BY = Divides the rows in a table into groups

## 

## Try It / Solve It

1. In the SQL query shown below, which of the following is true about this query?

T a. Kimberly Grant would not appear in the results set.

F b. The GROUP BY clause has an error because the manager\_id is not listed in the SELECT clause.

F c. Only salaries greater than 16001 will be in the result set.

F d. Names beginning with Ki will appear after names beginning with Ko.

F e. Last names such as King and Kochhar will be returned even if they don’t have salaries > 16000.

SELECT last\_name, MAX(salary) FROM employees

WHERE last\_name LIKE 'K%' GROUP BY manager\_id, last\_name HAVING MAX(salary) >16000

ORDER BY last\_name DESC ;

1. Each of the following SQL queries has an error. Find the error and correct it. Use Oracle Application Express to verify that your corrections produce the desired results.
   1. SELECT manager\_id FROM employees

WHERE AVG(salary) <16000

GROUP BY manager\_id; 🡪cand utilizam Group function conditia trebuie sa se puna in HAVING

SELECT manager\_id FROM employees

GROUP BY manager\_id

HAVING AVG(salary) <16000

* 1. SELECT cd\_number, COUNT(title) FROM d\_cds

WHERE cd\_number < 93;

SELECT cd\_number, COUNT(title)

FROM d\_cds

WHERE cd\_number < 93

GROUP BY cd\_number; 🡪 orice coloana din cauza select care nu face parte din group function trebuie sa fi prezenta in clauza GROUP BY

* 1. SELECT ID, MAX(ID), artist AS Artist FROM d\_songs

WHERE duration IN('3 min', '6 min', '10 min') HAVING ID < 50

GROUP by ID; 🡪orice coloana din cauza select care nu face parte din group function trebuie sa fi prezenta in clauza GROUP BY

SELECT ID, artist AS Artist

FROM d\_songs

WHERE duration IN('3 min', '6 min', '10 min')

GROUP BY ID

HAVING ID < 50

* 1. SELECT loc\_type, rental\_fee AS Fee FROM d\_venues

WHERE id <100 GROUP BY "Fee" ORDER BY 2; 🡪 nu recunoaste aliasurile, trebuie inclusa si coloanal loc\_type

SELECT loc\_type, rental\_fee AS Fee

FROM d\_venues

WHERE id <100

GROUP BY rental\_fee, loc\_type

ORDER BY 2;

1. Rewrite the following query to accomplish the same result: SELECT DISTINCT MAX(song\_id)

FROM d\_track\_listings WHERE track IN ( 1, 2, 3);

SELECT MAX(song\_id)

FROM d\_track\_listings WHERE track IN ( 1, 2, 3);

1. Indicate True or False

T a. If you include a group function and any other individual columns in a SELECT clause, then each individual column must also appear in the GROUP BY clause.

F b. You can use a column alias in the GROUP BY clause.

F c. The GROUP BY clause always includes a group function.

1. Write a query that will return both the maximum and minimum average salary grouped by department from the employees table.

SELECT MAX(AVG(salary)), MIN(AVG(salary))

FROM employees

GROUP BY department\_id

1. Write a query that will return the average of the maximum salaries in each department for the employees table.

SELECT AVG(MAX(salary))

FROM employees

GROUP BY department\_id