

SQL Sample Codes: Below questions are from StrataScratch and Leetcode.

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Salaries Differences

Question

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ID 10308

Salaries Differences

Write a query that calculates the difference between the highest salaries across the marketing and engineering departments. Output just the difference in salaries.

Tables: db_employee, db_dept

Approach Hints

Expected Output

db_employee

Preview

int

1

select(select max(salary) as marketing_max from db_employee where department_id = (select id from db_dept where department = 'marketing')) - (select max(salary) as engineering_max from db_employee where department_id = (select id from db_dept where department = 'engineering'));

Run Code

Check Solution

Use Alt + Enter to run query

Output

View the output in a separate browser tab

7column?

2400

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Finding Updated Records

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Interview Questions

ID 10299

Finding Updated Records

We have a table with employees and their salaries, however, some of the records are old and contain outdated salary information. Find the current salary of each employee assuming that salaries increase each year. Output their id, first name, last name, department ID, and current salary. Order your list by employee ID in ascending order.

Table: ms_employee_salary

Approach Hints

Expected Output

ms_employee_salary

Preview

int

1

select id,first_name,last_name,department_id,max(salary) as current_salary from ms_employee_salary group by first_name,id ,last_name,department_id order by id;

Run Code

Check Solution

Use Alt + Enter to run query

Output

View the output in a separate browser tab

id	first_name	last_name	department_id	current_
1	Todd	Wilson	1006	110000
2	Justin	Simon	1005	130000

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SQL

Bikes Last Used

Question

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General Practice

ID 10179

Bikes Last Used

Find the last time each bike was in use. Output both the bike number and the date-timestamp of the bike's last use (i.e., the date-time the bike was returned). Order the results by bikes that were most recently used.

Table: dc_bikeshare_q1_2012

Approach Hints

Expected Output

dc_bikeshare_q1_2012

Preview

varchar

int

datetime

varchar

int

datetime

varchar

int

varchar

varchar

1

select bike_number,max(end_time) as last_used from dc_bikeshare_q1_2012 group by bike_number order by last_used desc;

Run Code

Solved

Use Alt + Enter to run query

Output

View the output in a separate browser tab

Your solution is correct. Congratulations, your solution has now been logged in the Solution From Users tab

bike_number	last_used
W01278	2012-03-31T19:28:00
W01097	2012-03-31T15:37:00
W00270	2012-03-31T12:10:00

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DescriptionSolutionDiscuss (629)SubmissionsMySQL

184. Department Highest SalaryMedium600130Add to ListShare

SQL Schema>

The Employee table holds all employees. Every employee has an Id, a salary, and there is also a column for the department Id.

Id	Name	Salary	DepartmentId
1	Joe	70000	1
2	Jim	90000	1
3	Henry	80000	2
4	Sam	60000	2
5	Max	90000	1

The Department table holds all departments of the company.

Id	Name
1	IT
2	Sales

Write a SQL query to find employees who have the highest salary in each of the departments. For the above tables, your SQL query should return the following rows (order of rows does not matter).

TestcaseRun Code Result

AcceptedRuntime: 131 ms

Your input{"headers": ["Employee": [{"Id", "Name", "Salary", "DepartmentId"}, {"Department": [{"Id", "Name"}], "rows": {"Employee": [{"Joe", 70000, 1}, {"2", "Jim", 90000, 1}, {"3", "Henry", 80000, 2}, {"4", "Sam", 60000, 2}, {"5", "Max", 90000, 1}], "Department": [{"1", "IT"}, {"2", "Sales"}]}}]

Output{"headers": ["Department", "Employee", "Salary", "values": [{"IT", "Jim", 90000}, {"Sales", "Henry", 80000}, {"IT", "Max", 90000}]}Diff

Expected{"headers": ["Department", "Employee", "Salary", "values": [{"IT", "Jim", 90000}, {"Sales", "Henry", 80000}, {"IT", "Max", 90000}]}]

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DescriptionSolutionDiscuss (579)SubmissionsMySQL

177. Nth Highest SalaryMedium579446Add to ListShare

Write a SQL query to get the n^{th} highest salary from the Employee table.

Id	Salary
1	100
2	200
3	300

For example, given the above Employee table, the n^{th} highest salary where $n = 2$ is 200. If there is no n^{th} highest salary, then the query should return null.

getNthHighestSalary(2)
200

Accepted150,755Submissions452,592

Seen this question in a real interview before?YesNo

Companies

TestcaseRun Code Result

AcceptedRuntime: 92 ms

Your input{"headers": ["Employee": [{"Id", "Salary"}], "argument": 2, "rows": {"Employee": [{"1", 100}, {"2", 200}, {"3", 300}]}]

Output{"headers": ["getNthHighestSalary(2)", "values": [{"200}]}Diff

Expected{"headers": ["getNthHighestSalary(2)", "values": [{"200}]}]

```
1 CREATE FUNCTION getNthHighestSalary(N INT) RETURNS INT
2 BEGIN
3 RETURN (
4     # result variable will store ordered values of salaries in the form of table
5     # returned by the sub-query.
6     with result as
7     (
8         # dense_rank() is used to rank the attributes of a table.
9         # since we need to rank values on the basis of "salary" so
10        # we specify "OVER" upon the ordered values of salary
11        # and add myRank attribute to the result of this subquery
12        select salary, DENSE_RANK() over (order by salary desc) as myRank
13        from employee
14
15
16    )
17
18    # now from the result obtained by the sub-query above
19    # we will match the rank with the required RANK
20
21    select distinct salary from result
22    where result.myRank = N
23
24 );
25 END
```

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DescriptionSolutionDiscuss (941)SubmissionsMySQL

178. Rank ScoresMedium808163Add to ListShare

SQL Schema>

Write a SQL query to rank scores. If there is a tie between two scores, both should have the same ranking. Note that after a tie, the next ranking number should be the next consecutive integer value. In other words, there should be no "holes" between ranks.

Id	Score
1	3.50
2	3.65
3	4.00
4	3.85
5	4.00
6	3.65

For example, given the above Scores table, your query should generate the following report (order by highest score):

score	Rank
4.00	1
4.00	1
3.85	2
3.65	3
3.65	3
3.50	4

TestcaseRun Code Result

AcceptedRuntime: 179 ms

Your input{"headers": ["Scores": [{"Id", "Score"}], "rows": {"Scores": [{"1", 3.50}, {"2", 3.65}, {"3", 4.00}, {"4", 3.85}, {"5", 4.00}, {"6", 3.65}]}]

Output{"headers": ["Score", "Rank"], "values": [{"4.00, 1}, {"4.00, 1}, {"3.85, 2}, {"3.65, 3}, {"3.65, 3}, {"3.50, 4}]}Diff

Expected{"headers": ["Score", "Rank"], "values": [{"4.00, 1}, {"4.00, 1}, {"3.85, 2}, {"3.65, 3}, {"3.65, 3}, {"3.50, 4}]}]

```
1 # Write your MySQL query statement below
2 SELECT Score, DENSE_RANK() OVER (ORDER BY Score DESC) AS 'Rank'
3 FROM Scores
```