

# 176. Second Highest Salary

July 11, 2017 | 178.6K views

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Write a SQL query to get the second highest salary from the `Employee` table.

+---+-----+		
Id   Salary		
+---+-----+		
1	100	
2	200	
3	300	
+---+-----+		

For example, given the above Employee table, the query should return `200` as the second highest salary. If there is no second highest salary, then the query should return `null`.

+-----+-----+		
SecondHighestSalary		
+-----+-----+		
200		
+-----+-----+		

## Solution

Approach: Using sub-query and `LIMIT` clause [Accepted]

### Algorithm

Sort the distinct salary in descend order and then utilize the `LIMIT` clause to get the second highest salary.

```
SELECT DISTINCT
  Salary AS SecondHighestSalary
FROM
  Employee
ORDER BY Salary DESC
LIMIT 1 OFFSET 1
```

However, this solution will be judged as 'Wrong Answer' if there is no such second highest salary since there might be only one record in this table. To overcome this issue, we can take this as a temp table.

### MySQL

```
SELECT
  (SELECT DISTINCT
    Salary
  FROM
    Employee
  ORDER BY Salary DESC
  LIMIT 1 OFFSET 1) AS SecondHighestSalary
;
```

Approach: Using `IFNULL` and `LIMIT` clause [Accepted]

Another way to solve the 'NULL' problem is to use `IFNULL` funtion as below.


### MySQL

```
SELECT
  IFNULL(
    (SELECT DISTINCT Salary
     FROM Employee
     ORDER BY Salary DESC
     LIMIT 1 OFFSET 1),
    NULL) AS SecondHighestSalary
```

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peaceandlove

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select max(Salary) as SecondHighestSalary from Employee where Salary not in (select max(Salary) from Employee)


233

^ v

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wwang0

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select max(salary) as SecondHighestSalary from Employee where salary < (select max(salary) from Employee)


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select max(Salary) as SecondHighestSalary from Employee where Salary not in (select max(salary) from Employee)

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SELECT MAX(Salary) AS SecondHighestSalary FROM Employee WHERE Salary < (SELECT MAX(Salary) FROM Employee)


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user2792j

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April 29, 2019 11:58 PM

what's wrong with this query?

select salary as SecondHighestSalary from(select rank() over (order by salary desc) as rank, salary from employee

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sourabhkeshrii

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select max(sal) from emp where sal <(select max(sal) from emp)

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SELECT MAX(Salary) as SecondHighestSalary FROM Employee WHERE Salary < (SELECT MAX(Salary) FROM Employee)


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SELECT MAX(Salary) as SecondHighestSalary FROM Employee WHERE Salary < (SELECT MAX(Salary) FROM Employee);

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