

# Problem 177: Nth Highest Salary

## Problem Information

Difficulty: **Medium**

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

Table:

Employee

+-----+-----+ | Column Name | Type | +-----+-----+ | id | int | | salary | int |  
+-----+-----+ id is the primary key (column with unique values) for this table. Each row of this table contains information about the salary of an employee.

Write a solution to find the

n

th

highest

distinct

salary from the

Employee

table. If there are less than

n

distinct salaries, return

null

.

The result format is in the following example.

Example 1:

Input:

Employee table: +----+-----+ | id | salary | +----+-----+ | 1 | 100 | | 2 | 200 | | 3 | 300 |  
+----+-----+ n = 2

Output:

+-----+ | getNthHighestSalary(2) | +-----+ | 200 |  
+-----+

Example 2:

Input:

Employee table: +----+-----+ | id | salary | +----+-----+ | 1 | 100 | +----+-----+ n = 2

Output:

+-----+ | getNthHighestSalary(2) | +-----+ | null |  
+-----+

## Code Snippets

**MySQL:**

```
CREATE FUNCTION getNthHighestSalary(N INT) RETURNS INT
BEGIN
  RETURN (
    # Write your MySQL query statement below.
```

```
);  
END
```

### MS SQL Server:

```
CREATE FUNCTION getNthHighestSalary(@N INT) RETURNS INT AS  
BEGIN  
RETURN (  
/* Write your T-SQL query statement below. */  
  
);  
END
```

### PostgreSQL:

```
CREATE OR REPLACE FUNCTION NthHighestSalary(N INT) RETURNS TABLE (Salary INT)  
AS $$  
BEGIN  
RETURN QUERY (  
-- Write your PostgreSQL query statement below.  
  
);  
END;  
$$ LANGUAGE plpgsql;
```

### Oracle:

```
CREATE FUNCTION getNthHighestSalary(N IN NUMBER) RETURN NUMBER IS  
result NUMBER;  
BEGIN  
/* Write your PL/SQL query statement below */  
  
RETURN result;  
END;
```

### Pandas:

```
import pandas as pd  
  
def nth_highest_salary(employee: pd.DataFrame, N: int) -> pd.DataFrame:
```

## Solutions

### MySQL Solution:

```
CREATE FUNCTION getNthHighestSalary(N INT) RETURNS INT
BEGIN
  RETURN (
    # Write your MySQL query statement below.

  );
END
```

### MS SQL Server Solution:

```
CREATE FUNCTION getNthHighestSalary(@N INT) RETURNS INT AS
BEGIN
  RETURN (
    /* Write your T-SQL query statement below. */

  );
END
```

### PostgreSQL Solution:

```
CREATE OR REPLACE FUNCTION NthHighestSalary(N INT) RETURNS TABLE (Salary INT)
AS $$
BEGIN
  RETURN QUERY (
    -- Write your PostgreSQL query statement below.

  );
END;
$$ LANGUAGE plpgsql;
```

### Oracle Solution:

```
CREATE FUNCTION getNthHighestSalary(N IN NUMBER) RETURN NUMBER IS
result NUMBER;
BEGIN
```

```
/* Write your PL/SQL query statement below */
```

```
RETURN result;
```

```
END;
```

### **Pandas Solution:**

```
import pandas as pd
```

```
def nth_highest_salary(employee: pd.DataFrame, N: int) -> pd.DataFrame:
```