

EMPLOYEES' SALARY

By Nikolay Vetsov

Hello there,

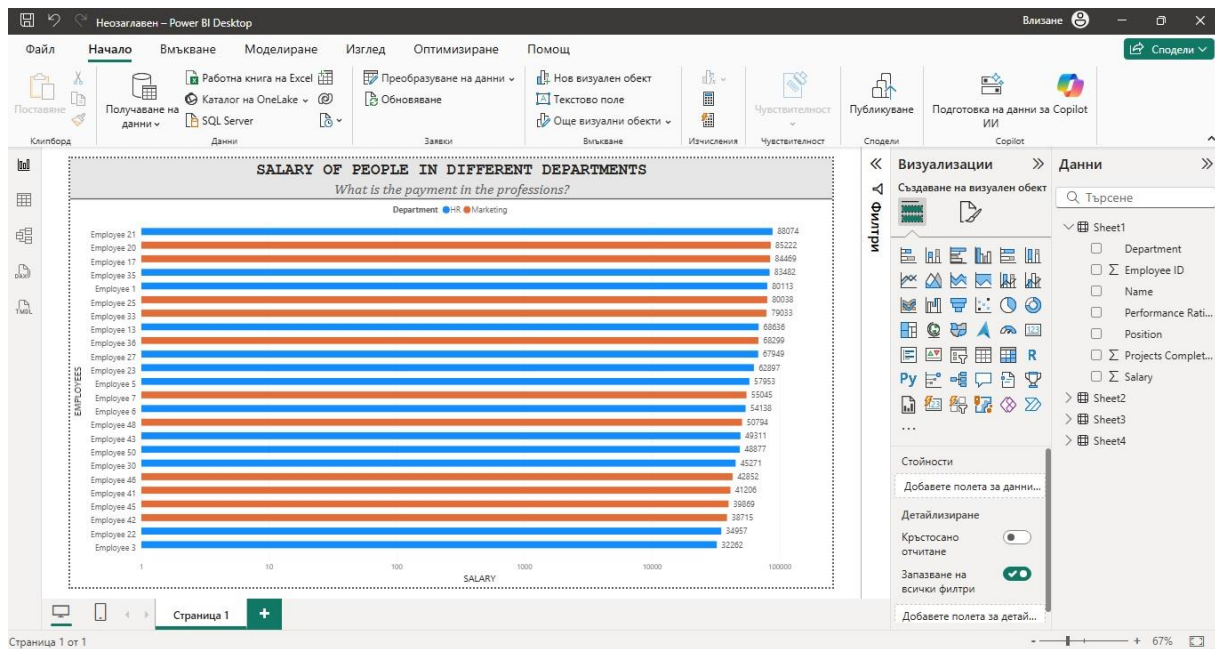
I am going to show you a short research.

I am using the excel file to make a comparison between the salary of the HR employees and those in the Marketing department. I am using – The Data.xlsx in the same directory.

| Employee ID | Name | Department | Position | Projects Completed | Performance Rating | Salary |
|-------------|-------------|------------|----------|--------------------|--------------------|--------|
| 1 | Employee 1 | HR | Manager | 3 | Poor | 80113 |
| 2 | Employee 2 | Sales | Senior | 12 | Excellent | 68084 |
| 3 | Employee 3 | HR | Manager | 4 | Good | 32262 |
| 4 | Employee 4 | Sales | Manager | 13 | Average | 52337 |
| 5 | Employee 5 | HR | Manager | 1 | Excellent | 57953 |
| 6 | Employee 6 | HR | Junior | 18 | Excellent | 54138 |
| 7 | Employee 7 | Marketing | Manager | 3 | Excellent | 55045 |
| 8 | Employee 8 | Sales | Junior | 12 | Good | 70311 |
| 9 | Employee 9 | IT | Junior | 8 | Average | 89905 |
| 10 | Employee 10 | IT | Manager | 12 | Excellent | 49930 |
| 11 | Employee 11 | Sales | Manager | 6 | Good | 82993 |
| 12 | Employee 12 | Sales | Manager | 4 | Average | 84518 |
| 13 | Employee 13 | HR | Senior | 17 | Good | 68636 |
| 14 | Employee 14 | Sales | Senior | 18 | Good | 49863 |
| 15 | Employee 15 | IT | Junior | 12 | Excellent | 76071 |
| 16 | Employee 16 | IT | Junior | 18 | Good | 83897 |
| 17 | Employee 17 | Marketing | Manager | 12 | Excellent | 84469 |
| 18 | Employee 18 | Sales | Manager | 15 | Average | 48173 |
| 19 | Employee 19 | Sales | Junior | 8 | Average | 62007 |
| 20 | Employee 20 | Marketing | Junior | 6 | Average | 85222 |
| 21 | Employee 21 | HR | Junior | 18 | Good | 88074 |
| 22 | Employee 22 | HR | Manager | 7 | Poor | 34957 |
| 23 | Employee 23 | HR | Manager | 11 | Poor | 62897 |
| 24 | Employee 24 | IT | Senior | 13 | Excellent | 57115 |
| 25 | Employee 25 | Marketing | Junior | 15 | Good | 80038 |
| 26 | Employee 26 | IT | Manager | 7 | Average | 54476 |
| 27 | Employee 27 | HR | Junior | 12 | Average | 67949 |
| 28 | Employee 28 | Sales | Senior | 4 | Excellent | 62789 |
| 29 | Employee 29 | Sales | Senior | 17 | Average | 62271 |
| 30 | Employee 30 | HR | Manager | 10 | Poor | 45271 |
| 31 | Employee 31 | Sales | Senior | 6 | Good | 69352 |
| 32 | Employee 32 | IT | Manager | 12 | Poor | 54462 |
| 33 | Employee 33 | Marketing | Manager | 9 | Average | 79033 |
| 34 | Employee 34 | Sales | Manager | 19 | Average | 69288 |
| 35 | Employee 35 | HR | Manager | 1 | Poor | 83482 |
| 36 | Employee 36 | Marketing | Junior | 19 | Good | 68299 |
| 37 | Employee 37 | Sales | Manager | 14 | Good | 72140 |
| 38 | Employee 38 | Sales | Manager | 0 | Poor | 48169 |
| 39 | Employee 39 | IT | Junior | 1 | Poor | 86280 |
| 40 | Employee 40 | Sales | Manager | 7 | Good | 75684 |
| 41 | Employee 41 | Marketing | Junior | 18 | Good | 41206 |
| 42 | Employee 42 | Marketing | Manager | 19 | Excellent | 38715 |
| 43 | Employee 43 | HR | Senior | 9 | Average | 49311 |
| 44 | Employee 44 | IT | Junior | 4 | Poor | 81383 |
| 45 | Employee 45 | Marketing | Manager | 12 | Good | 39869 |
| 46 | Employee 46 | Marketing | Senior | 12 | Excellent | 42852 |
| 47 | Employee 47 | Sales | Manager | 1 | Good | 69757 |
| 48 | Employee 48 | Marketing | Junior | 4 | Excellent | 50794 |
| 49 | Employee 49 | IT | Manager | 14 | Excellent | 72728 |
| 50 | Employee 50 | HR | Manager | 0 | Poor | 48877 |

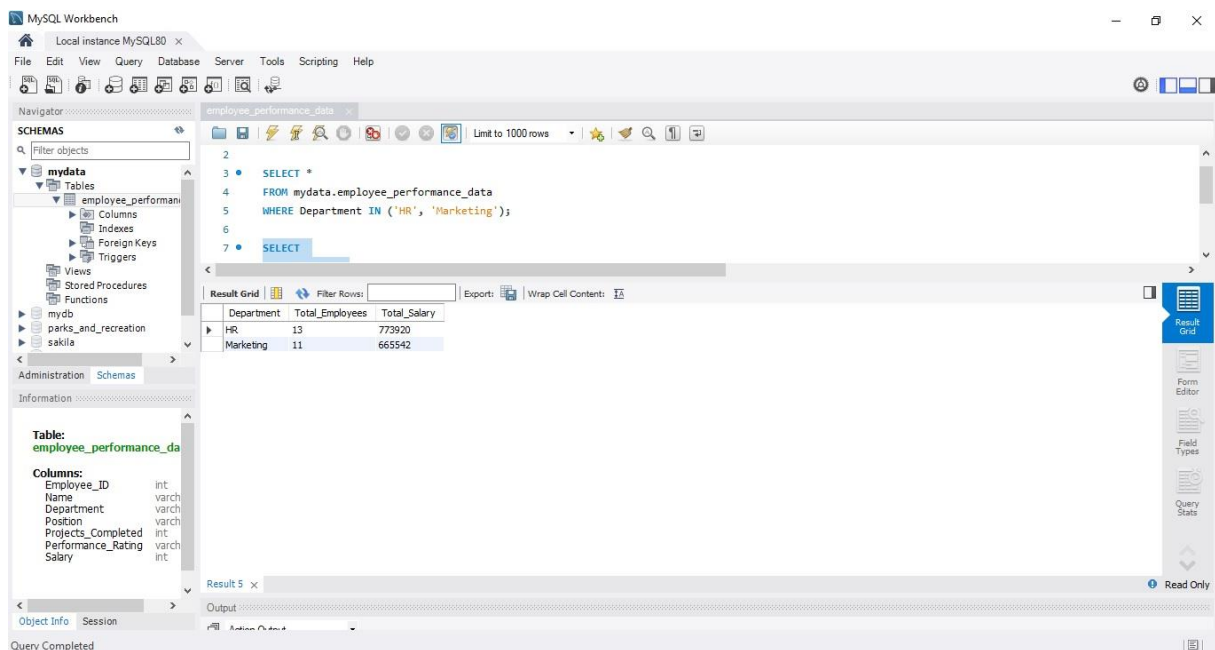
This is the full data I am using for my research.

Using Microsoft Power BI, I am making a visual segment:



I am making a design of a visualization – I am showing only the employees, working in HR (Blue) and Marketing (Orange) and their salaries.

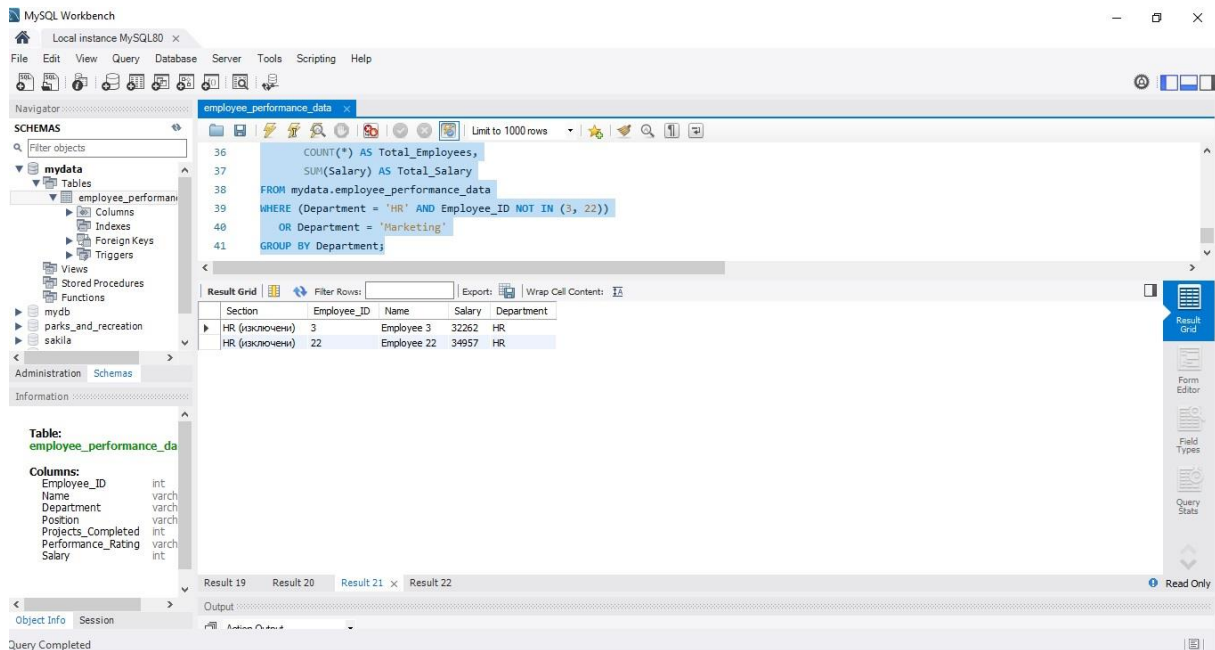
After that I decided to find out what is the total for the HR salaries, same for the Marketing. So, I am using SQL to find out:



There are 13 employees in the HR department as a part of the data and 11 employees in the Marketing department.

After I decided to calculate all salaries from the respective department, I got the following sum – 773920 for the HR department and 665542 for the Marketing department. That means that the Human Resources field is more paid. But....I saw that there are 13 people in HR and 11 in Marketing – It looks

like that I examine more people in HR, which means that the data may be misleading. So I made the following changes:



The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL code:

```
36 COUNT(*) AS Total_Employees,  
37 SUM(Salary) AS Total_Salary  
38 FROM mydata.employee_performance_data  
39 WHERE (Department = 'HR' AND Employee_ID NOT IN (3, 22))  
40 OR Department = 'Marketing'  
41 GROUP BY Department;
```

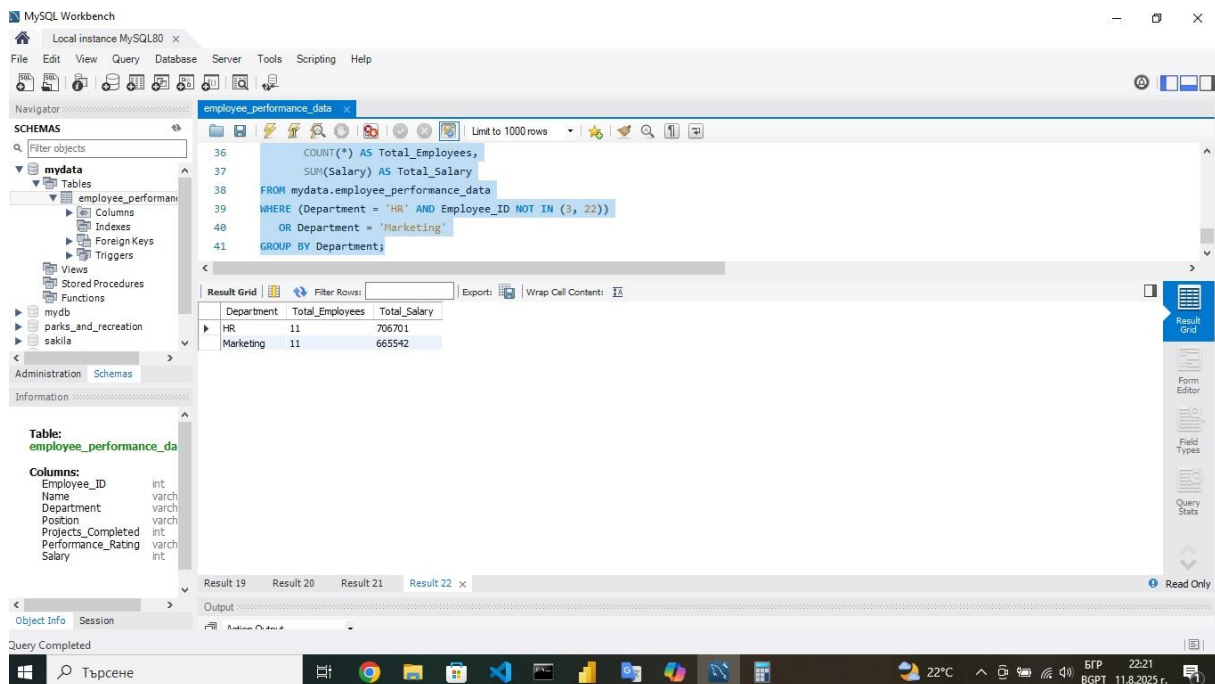
The results are displayed in a table with the following data:

| Section | Employee_ID | Name | Salary | Department |
|----------------|-------------|-------------|--------|------------|
| HR (исключено) | 3 | Employee 3 | 32262 | HR |
| HR (исключено) | 22 | Employee 22 | 34957 | HR |

The table structure for 'employee_performance_data' is also visible:

| Columns: | Employee_ID | Name | Department | Position | Projects_Completed | Performance_Rating | Salary |
|----------|-------------|---------|------------|----------|--------------------|--------------------|--------|
| int | varchar | varchar | varchar | int | varchar | int | |

I excluded 2 HR people from the data – those with the lowest salaries and I received the following information:



The screenshot shows the MySQL Workbench interface with the same query as before. The results are displayed in a table with the following data:

| Department | Total_Employees | Total_Salary |
|------------|-----------------|--------------|
| HR | 11 | 706701 |
| Marketing | 11 | 665542 |

11 people in HR (total salary = 706701) and 11 in Marketing (total salary = 665542). That means that still the Human Resources field is in the lead. Looks like that the people that are used for hiring workers are more paid than those in the Marketing.

About the reason – Why is that way?

Perhaps because they are so responsible for the new people in the business. They decide who will join the staff and who will not, even for the Marketing. They usually conduct interviews to see the interests of each of the candidates and their skills and intention and that's why.