**Домашняя работа №18**

**Задания**

Решите следующие задачи:

1. Покажите всех менеджеров, которые имеют в подчинении больше 6-ти сотрудников.

СПОСОБ 1

SELECT DISTINCT \*

FROM (

SELECT

Manager.MANAGER\_ID,

FIO = CONCAT(Employees.LAST\_NAME, ‘ ’, Employees.FIRST\_NAME),

СountSubordinateEmployee = COUNT(Employees.EMPLOYEE\_ID) OVER (PARTITION BY Employees.EMPLOYEE\_ID)

FROM EMPLOYEES Manager, EMPLOYEES Employees

WHERE Manager. MANAGER\_ID = Employees. EMPLOYEE\_ID

) Managers

WHERE СountSubordinateEmployee > 6

СПОСОБ 2

1. Создала CTE, в которой каждому EMPLOYEE\_ID указан MANAGER\_ID

2. Вывожу менеджера, у которого COUNT(MANAGER\_ID) больше 6

;

WITH Employee\_CTE

AS

(

SELECT Employees.EMPLOYEE\_ID, FIO = CONCAT(LAST\_NAME, ‘ ’, FIRST\_NAME), MANAGER\_ID, 0 AS Level

FROM EMPLOYEES Employees

WHERE MANAGER\_ID IS NULL

UNION ALL

SELECT Employees.EMPLOYEE\_ID, FIO = CONCAT(LAST\_NAME, ‘ ’, FIRST\_NAME), MANAGER\_ID, Level + 1

FROM EMPLOYEES Employees

JOIN Employee\_CTE cte

ON Employees.MANAGER\_ID = cte.EMPLOYEE\_ID

)

SELECT cte.MANAGER\_ID, FIO = CONCAT(Employee.LAST\_NAME, ‘ DEPARTMENT\_ID’, Employee.FIRST\_NAME), СountSubordinateEmployee = COUNT(cte.MANAGER\_ID)

FROM Employee\_CTE cte

JOIN EMPLOYEES Employee

ON cte.MANAGER\_ID = Employee.EMPLOYEE\_ID

GROUP BY cte.MANAGER\_ID, Employee.LAST\_NAME, Employee.FIRST\_NAME

HAVING COUNT(cte.MANAGER\_ID) > 6

1. Вывести min и max зарплату с вычетом commission\_pct для каждого департамента. (commission\_pct на базе указывается в процентах).

SELECT

[DEPARTMENT\_NAME],

[MaxSalary] = MAX([SALARY] - ([SALARY] \* [COMMISSION\_PCT]/100)),

[MinSalary] = MIN([SALARY] - ([SALARY] \* [COMMISSION\_PCT]/100))

FROM EMPLOYEES Employees

JOIN (SELECT \* FROM JOB\_HISTORY WHERE [END\_DATE] IS NULL) History

ON Employees.[EMPLOYEE\_ID] = History.[EMPLOYEE\_ID]

JOIN DEPARTMENTS Departmens

History.[ DEPARTMENT\_ID] = Departmens.[ DEPARTMENT\_ID]

GROUP BY [DEPARTMENT\_NAME]

При расчёте учитываю только работающих людей - WHERE [END\_DATE] IS NULL

1. Вывести только регион, где работают больше всего людей.

SELECT TOP 1 WITH TIES REGION\_NAME

FROM

(

SELECT REGION\_NAME, CountEmployee = COUNT(EMPLOYEE\_ID)

FROM REGIONS Regions

JOIN COUNTRIES Countries

ON Regions.REGION\_ID = Countries.REGION\_ID

JOIN LOCATIONS Locations

ON Countries.COUNTRY\_ID = Locations. COUNTRY\_ID

JOIN DEPARTMENTS Departments

ON Locations.LOCATION\_ID= Departments.LOCATION\_ID

JOIN (SELECT \* FROM JOB\_HISTORY WHERE [END\_DATE] IS NULL) History

ON Departmens.[ DEPARTMENT\_ID] = History.[ DEPARTMENT\_ID]

GROUP BY REGION\_NAME) data

ORDER BY CountEmployee DESC

При расчёте учитываю только работающих людей - WHERE [END\_DATE] IS NULL

1. Найдите разницу в процентах между средней зп по каждому департаменту от общей средней (по всем департаментам).

SELECT

[DEPARTMENT\_NAME],

[DifferenceAvgSalaryPercent] = (AVG([SALARY]) OVER () - AVG([SALARY]) OVER (PARTITION BY Departmens.[DEPARTMENT\_ID])) \* 100 \*1.0 / AVG([SALARY]) OVER ()

FROM EMPLOYEES Employees

JOIN (SELECT \* FROM JOB\_HISTORY WHERE [END\_DATE] IS NULL) History

ON Employees.[EMPLOYEE\_ID] = History.[EMPLOYEE\_ID]

JOIN DEPARTMENTS Departmens

History.[ DEPARTMENT\_ID] = Departmens.[ DEPARTMENT\_ID]

GROUP BY [DEPARTMENT\_NAME], [SALARY]

При расчёте учитываю только работающих людей - WHERE [END\_DATE] IS NULL

1. Найдите людей, кто проработал больше, чем 10 лет в одном департаменте.

*Немножко не поняла по условию задачи*

*Вариант если считаем людей, которые работали в 1 департаменте больше 10 лет (сюда в том числе попадают люди в ситуации если один и тот же человек 11 лет проработал в 1 департаменте, потом в другом 1 1 лет)*

SELECT

Employees .[EMPLOYEE\_ID],

[DEPARTMENT\_NAME],

[FIO] = CONCAT(Employees.[LAST\_NAME], ' ', Employees.[FIRST\_NAME]),

[WorkYears]= DATEDIFF(yyyy, [START-DATE], ISNULL([END\_DATE], GETDATE()))

FROM EMPLOYEES Employees

JOIN JOB\_HISTORY History

ON Employees.[EMPLOYEE\_ID] = History.[EMPLOYEE\_ID]

JOIN DEPARTMENTS Departmens

History.[ DEPARTMENT\_ID] = Departmens.[ DEPARTMENT\_ID]

WHERE DATEDIFF(yyyy, [START-DATE], ISNULL([END\_DATE], GETDATE())) > 10

*Вариант если считаем людей, которые работали ТОЛЬКО в 1 департаменте больше 10 лет (сюда не попадут люди, если они больше 10 лет работали сначала в 1 департаменте, потом больше 10 лет в другом)*

SELECT [FIO], [DEPARTMENT\_NAME], [WorkYears]

FROM

(

SELECT

Employees .[EMPLOYEE\_ID],

[DEPARTMENT\_NAME],

[FIO] = CONCAT(Employees.[LAST\_NAME], ' ', Employees.[FIRST\_NAME]),

[WorkYears]= DATEDIFF(yyyy, [START-DATE], ISNULL([END\_DATE], GETDATE())),

[CountEmployee] = COUNT(EMPLOYEE\_ID) OVER (PARTITION BY EMPLOYEE\_ID )

FROM EMPLOYEES Employees

JOIN JOB\_HISTORY History

ON Employees.[EMPLOYEE\_ID] = History.[EMPLOYEE\_ID]

JOIN DEPARTMENTS Departmens

History.[ DEPARTMENT\_ID] = Departmens.[ DEPARTMENT\_ID]

WHERE DATEDIFF(yyyy, [START-DATE], ISNULL([END\_DATE], GETDATE())) > 10

) data

WHERE [CountEmployee] = 1

1. Найдите людей, кто занимает 5-10 место по размеру зарплаты.

SELECT \*

FROM (

SELECT

EMPLOYEE\_ID,

LAST\_NAME,

SALARY,

DENSE\_RANK() OVER (ORDER BY SALARY) AS SalaryLevel

FROM EMPLOYEES

) Employees

WHERE SalaryLevel BETWEEN 5 AND 10

