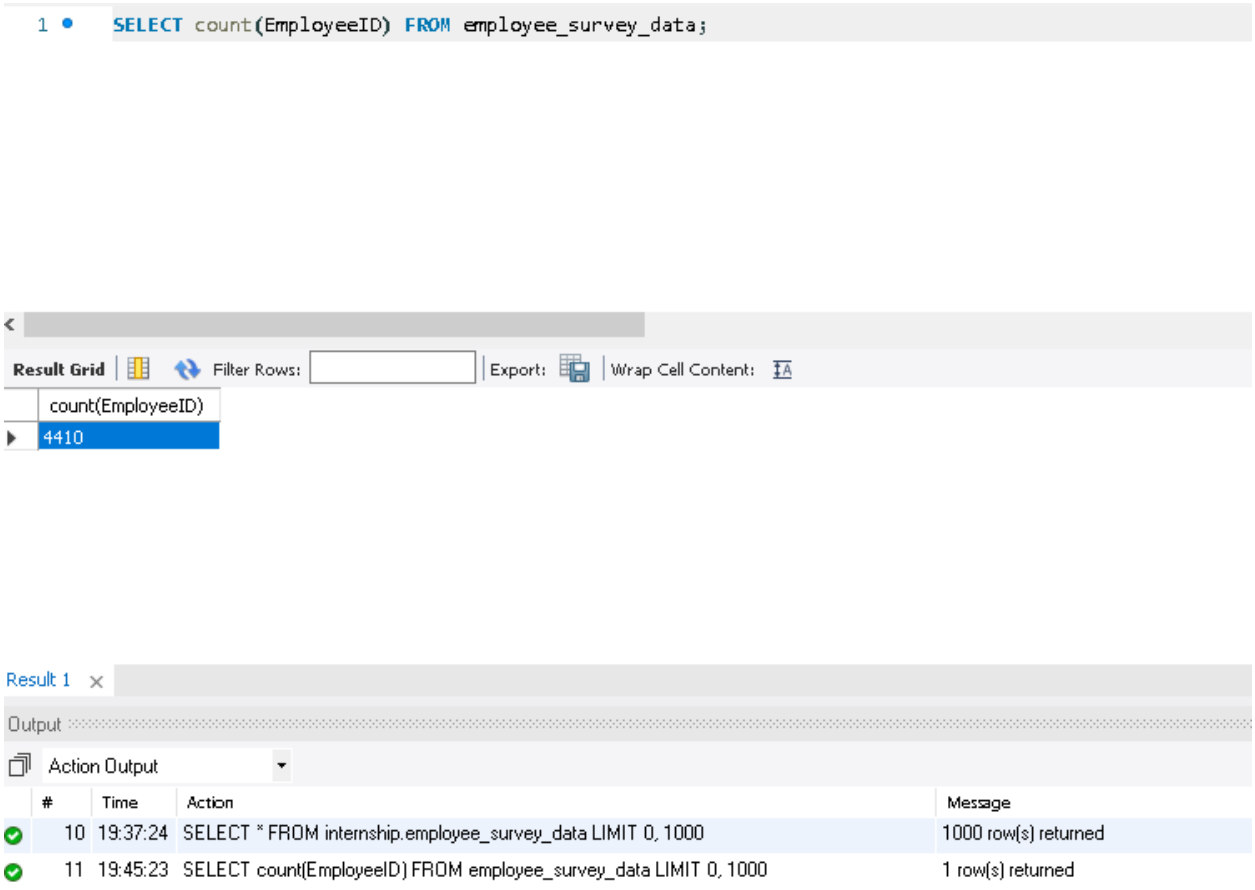
HR DATA ASSESSMENT

1. Retrieve the total number of employees in the dataset.

INPUT: SELECT count(EmployeeID) FROM employee_survey_data;

OUTPUT: 4410

SCREENSHOT:



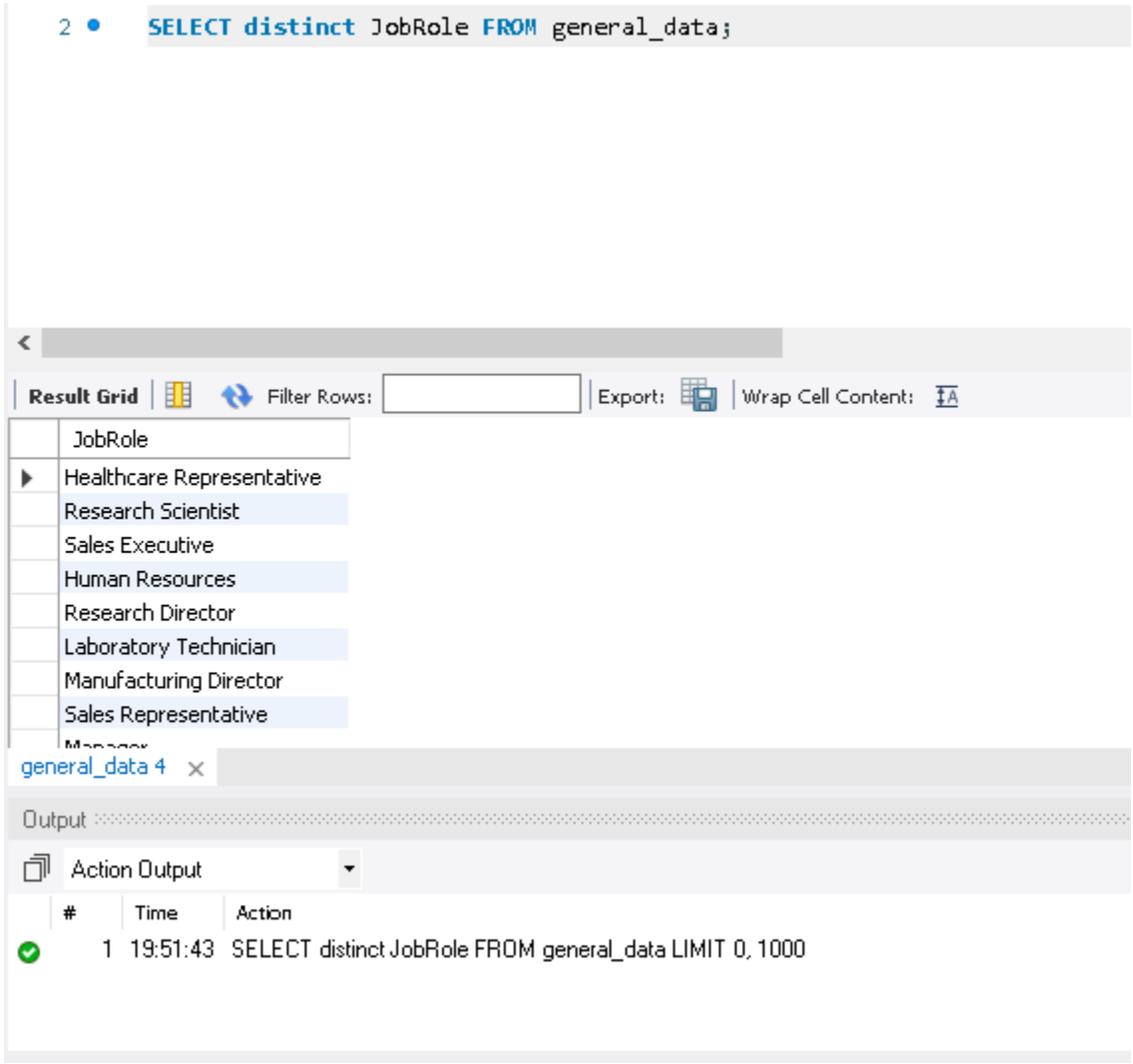
2. List all unique job roles in the dataset.

INPUT: SELECT distinct JobRole FROM general_data;

OUTPUT:

Healthcare Representative
Research Scientist
Sales Executive
Human Resources
Research Director
Laboratory Technician
Manufacturing Director
Sales Representative
Manager

SCREENSHOT:

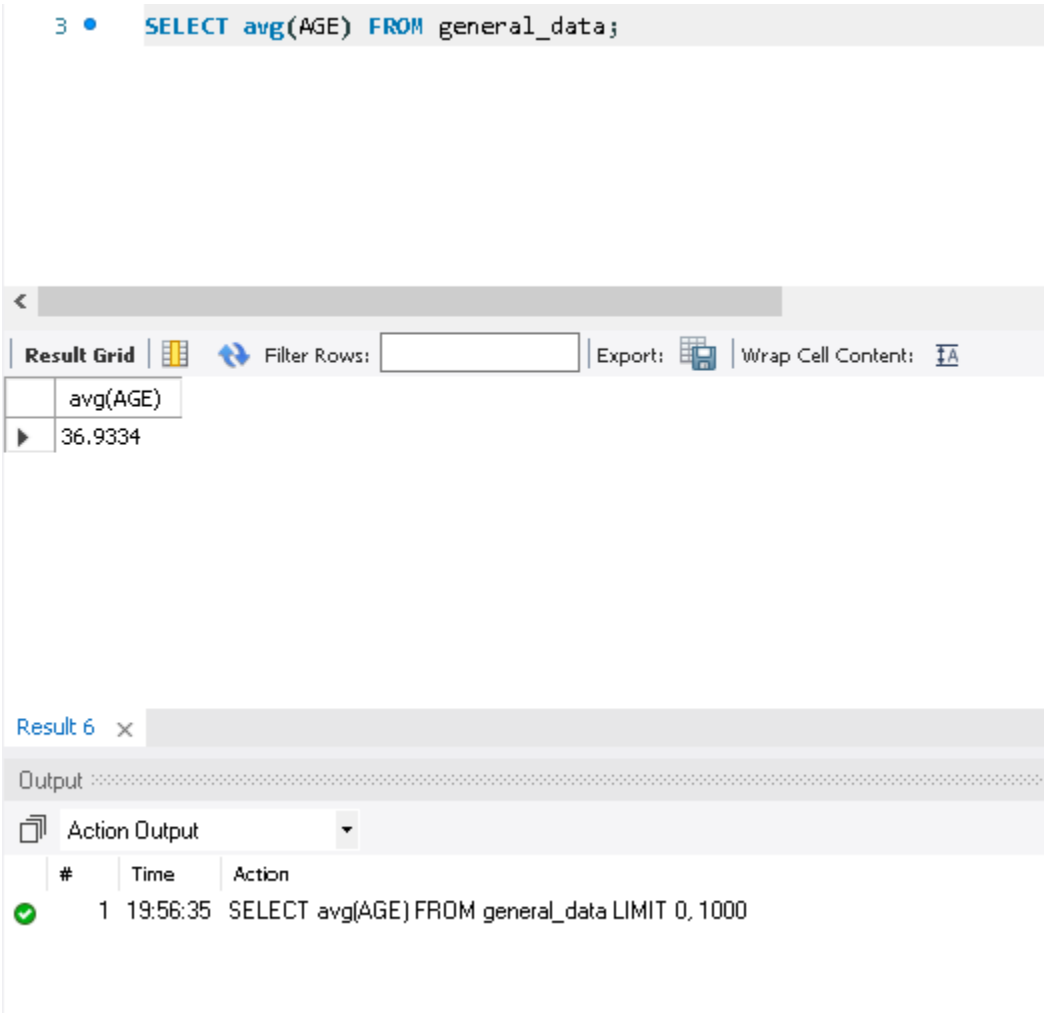

2 SELECT distinct JobRole FROM general_data;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
JobRole
Healthcare Representative
Research Scientist
Sales Executive
Human Resources
Research Director
Laboratory Technician
Manufacturing Director
Sales Representative
general_data 4
Output
Action Output
Time Action
1 19:51:43 SELECT distinct JobRole FROM general_data LIMIT 0, 1000

3. Find the average age of employees.

INPUT: SELECT avg(AGE) FROM general_data;

OUTPUT: 36.9334

SCREENSHOT:



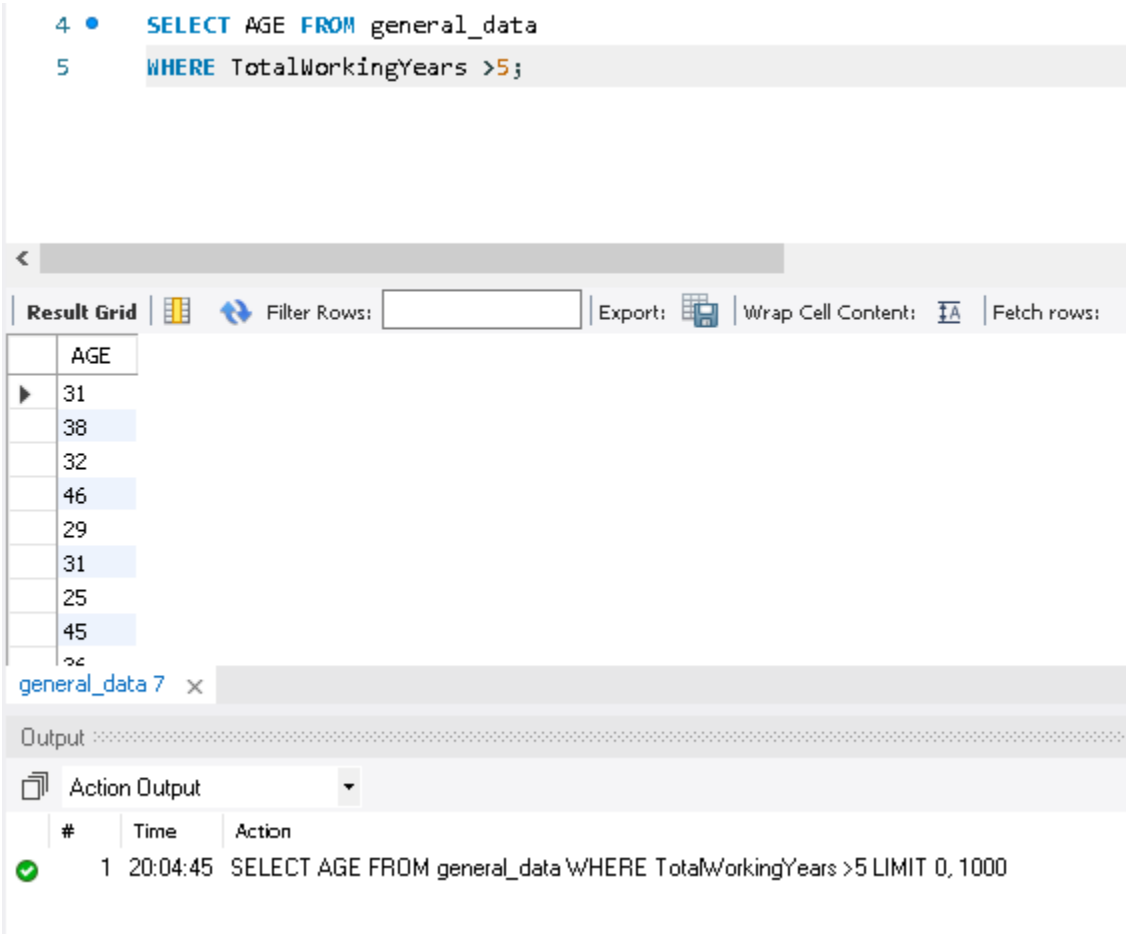
4. Retrieve the names and ages of employees who have worked at the company for more than 5 years.

INPUT: SELECT AGE FROM general_data
WHERE TotalWorkingYears >5;

OUTPUT:

31
38
32
46
29
31
25
45
36
55

SCREENSHOT:


4 SELECT AGE FROM general_data
5 WHERE TotalWorkingYears >5;
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Fetch rows:
AGE
31
38
32
46
29
31
25
45
general_data 7
Output
Action Output
Time Action
1 20:04:45 SELECT AGE FROM general_data WHERE TotalWorkingYears >5 LIMIT 0, 1000

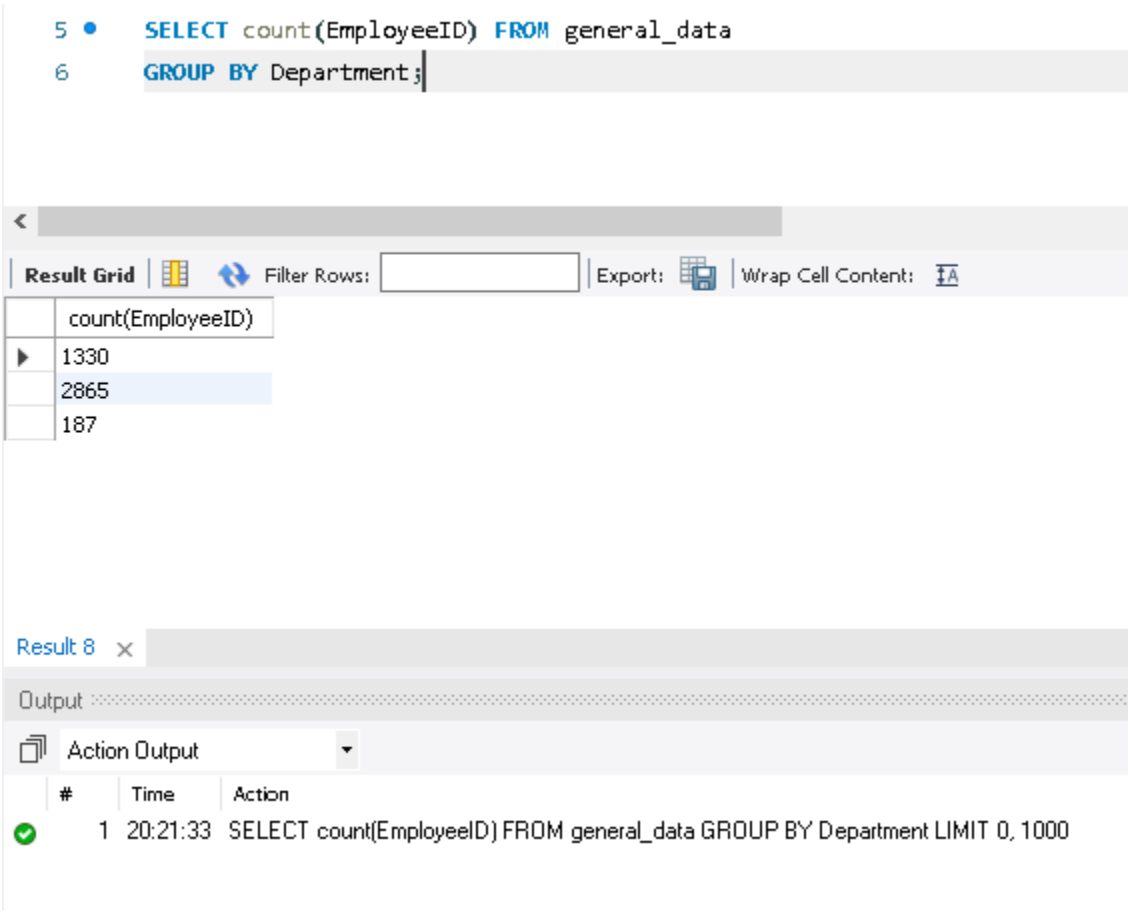
5. Get a count of employees grouped by their department.

INPUT: SELECT count(EmployeeID) FROM general_data
GROUP BY Department;

OUTPUT:

1330
2865
187

SCREENSHOT:



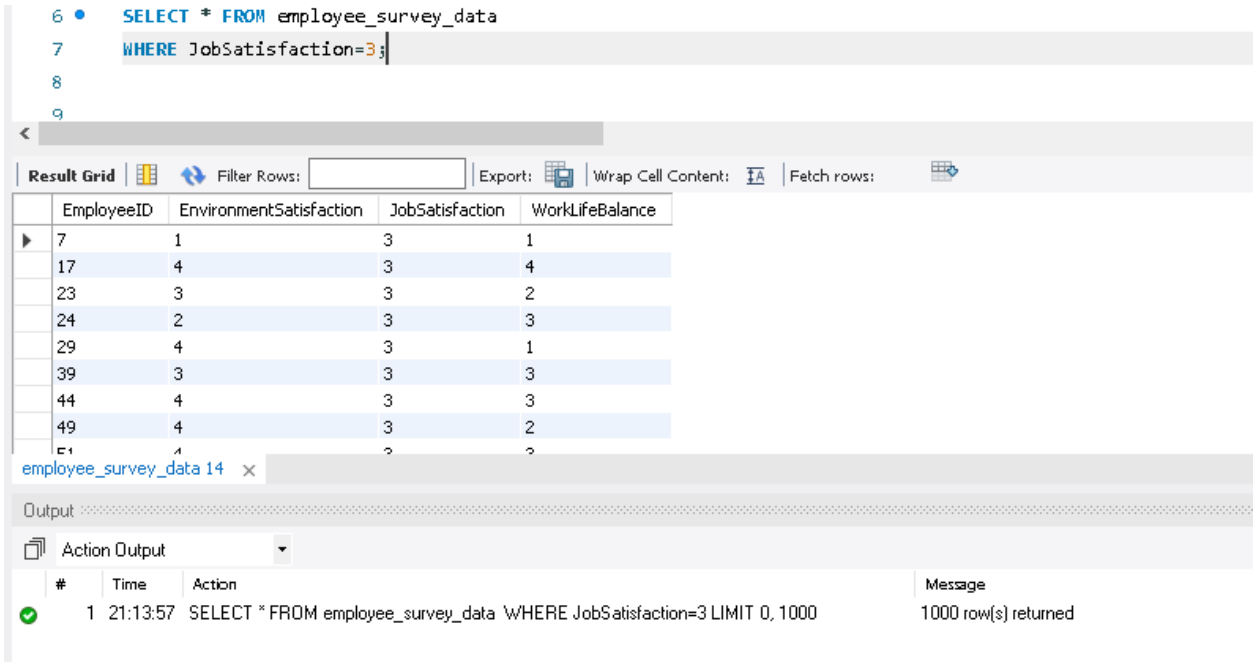
6. List employees who have 'High' Job Satisfaction.

INPUT: SELECT * FROM employee_survey_data
WHERE JobSatisfaction=3;

OUTPUT:

7	1	3	1
17	4	3	4
23	3	3	2
24	2	3	3
29	4	3	1
39	3	3	3
44	4	3	3
49	4	3	2
51	4	3	3
59	3	3	3

SCREENSHOT:

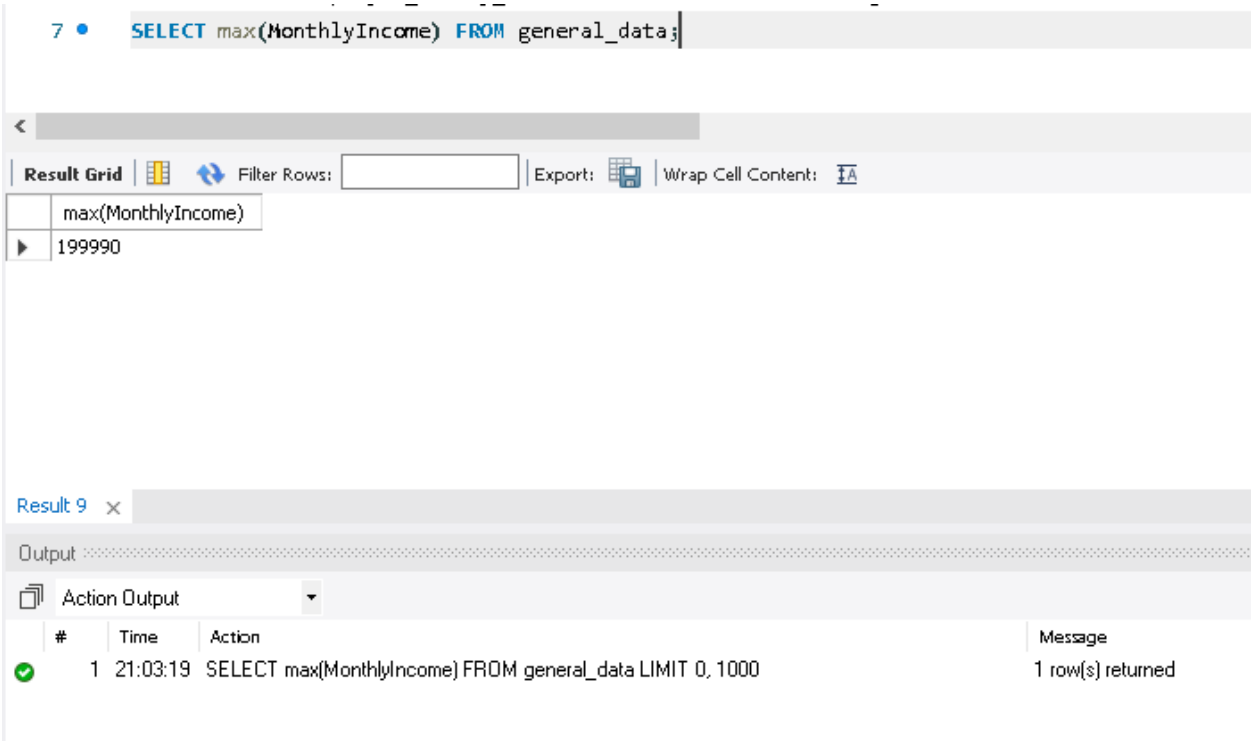


7. Find the highest Monthly Income in the dataset.

INPUT: SELECT max(MonthlyIncome) FROM general_data;

OUTPUT: 199990

SCREENSHOT:



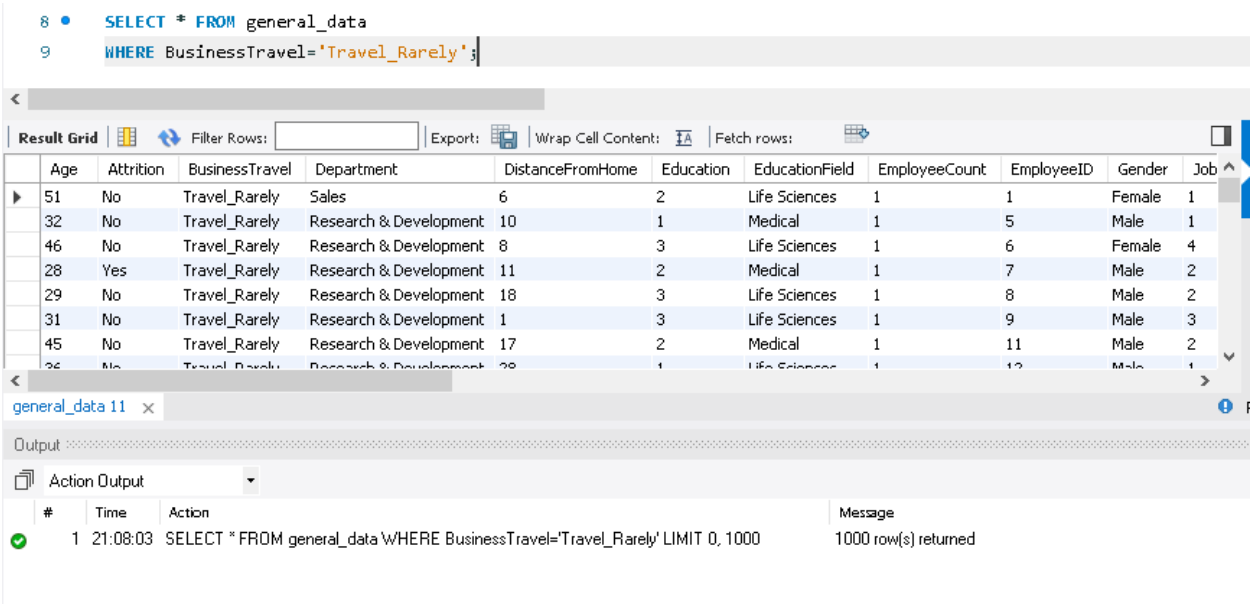
8. List employees who have 'Travel_Rarely' as their BusinessTravel type.

INPUT: SELECT * FROM general_data
WHERE BusinessTravel='Travel_Rarely';

OUTPUT:

51	No	Travel_Rarely	Sales	6	2	Life Sciences
32	No	Travel_Rarely	Research & Development	10	1	Medical
46	No	Travel_Rarely	Research & Development	8	3	Life Sciences
28	Yes	Travel_Rarely	Research & Development	11	2	Medical
29	No	Travel_Rarely	Research & Development	18	3	Life Sciences
31	No	Travel_Rarely	Research & Development	1	3	Life Sciences
45	No	Travel_Rarely	Research & Development	17	2	Medical
36	No	Travel_Rarely	Research & Development	28	1	Life Sciences
55	No	Travel_Rarely	Research & Development	14	4	Life Sciences
28	No	Travel_Rarely	Research & Development	1	3	Life Sciences

SCREENSHOT:



```
8 •  SELECT * FROM general_data
9    WHERE BusinessTravel='Travel_Rarely';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Age	Attrition	BusinessTravel	Department	DistanceFromHome	Education	EducationField	EmployeeCount	EmployeeID	Gender	Job
51	No	Travel_Rarely	Sales	6	2	Life Sciences	1	1	Female	1
32	No	Travel_Rarely	Research & Development	10	1	Medical	1	5	Male	1
46	No	Travel_Rarely	Research & Development	8	3	Life Sciences	1	6	Female	4
28	Yes	Travel_Rarely	Research & Development	11	2	Medical	1	7	Male	2
29	No	Travel_Rarely	Research & Development	18	3	Life Sciences	1	8	Male	2
31	No	Travel_Rarely	Research & Development	1	3	Life Sciences	1	9	Male	3
45	No	Travel_Rarely	Research & Development	17	2	Medical	1	11	Male	2

general_data 11

Output

Action Output

#	Time	Action	Message
1	21:08:03	SELECT * FROM general_data WHERE BusinessTravel='Travel_Rarely' LIMIT 0, 1000	1000 row(s) returned

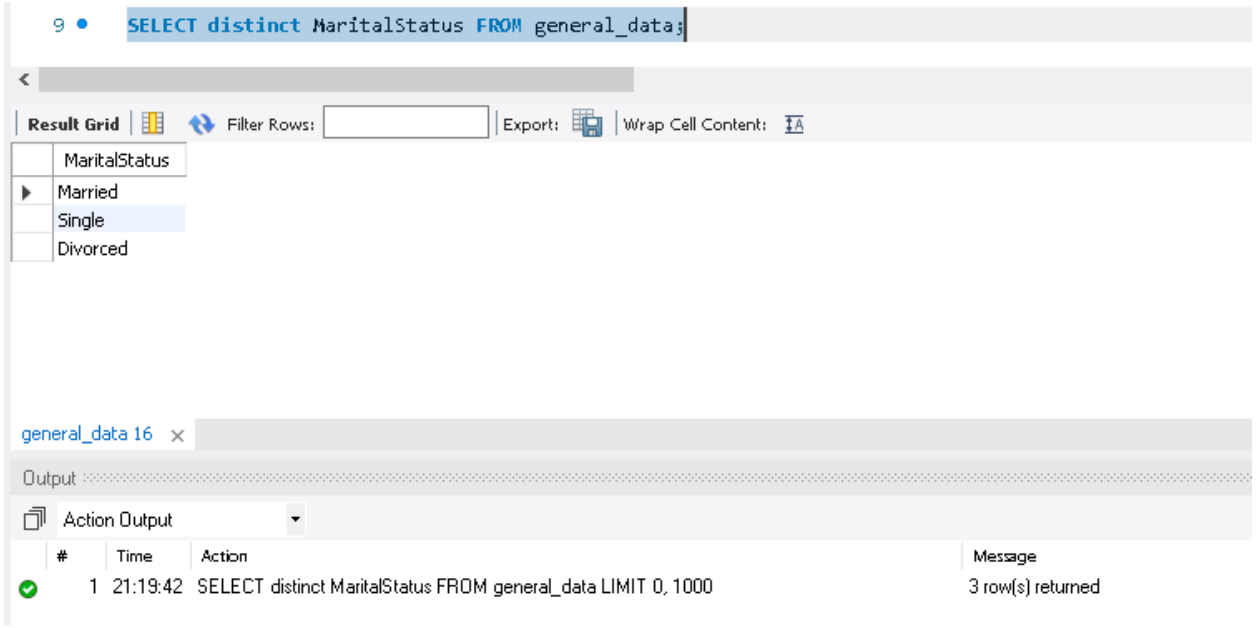
9. Retrieve the distinct MaritalStatus categories in the dataset.

INPUT: SELECT distinct MaritalStatus FROM general_data;

OUTPUT:

Married
Single
Divorced

SCREENSHOT:



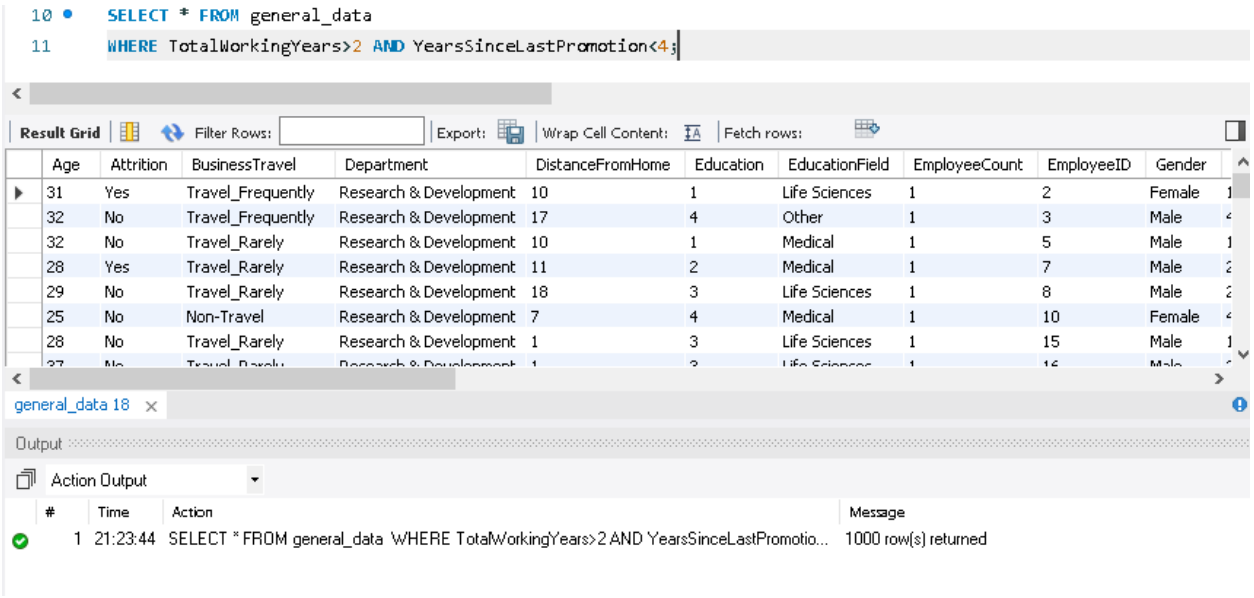
10. Get a list of employees with more than 2 years of work experience but less than 4 years in their current role.

INPUT: SELECT * FROM general_data
WHERE TotalWorkingYears>2 AND YearsSinceLastPromotion<4;

OUTPUT:

31	Yes	Travel_Frequentl y	6	1
32	No	Travel_Frequentl y	5	0
32	No	Travel_Rarely	9	0
28	Yes	Travel_Rarely	5	0
29	No	Travel_Rarely	10	0
25	No	Non-Travel	6	1
28	No	Travel_Rarely	5	0
37	No	Travel_Rarely	7	0
21	No	Travel_Rarely	3	1
37	No	Non-Travel	15	0

SCREENSHOT:



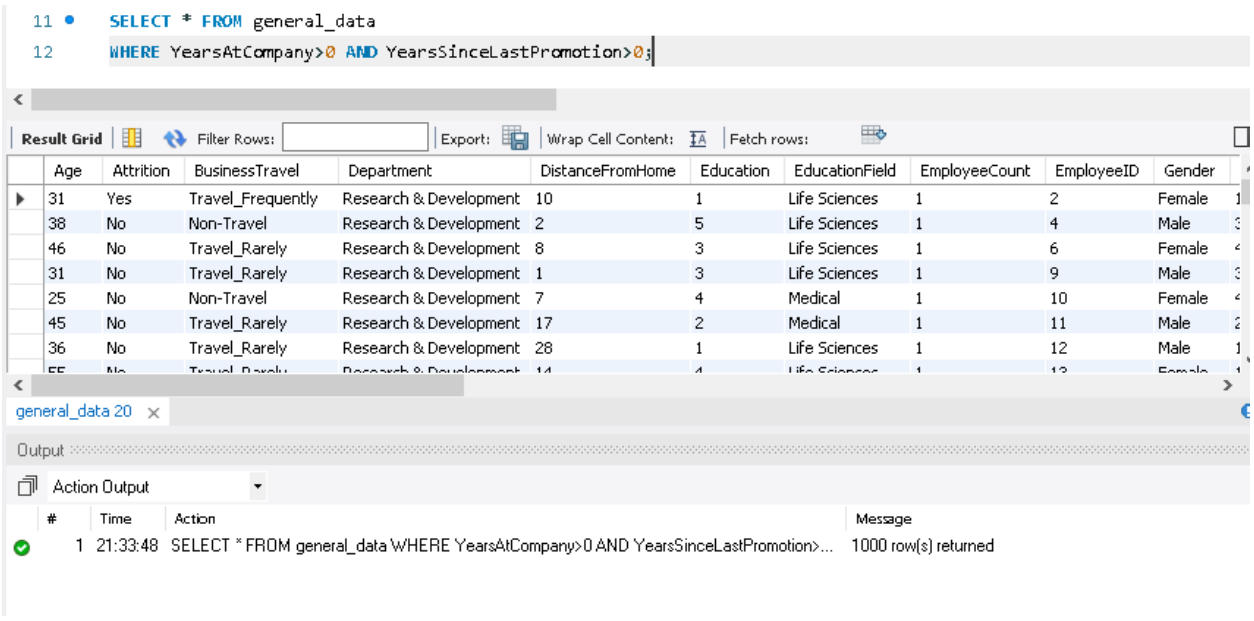
11. List employees who have changed their job roles within the company (JobLevel and JobRole differ from their previous job).

INPUT: SELECT * FROM general_data
WHERE YearsAtCompany>0 AND YearsSinceLastPromotion>0;

OUTPUT:

31	Yes	6	3	5	1	4
38	No	13	5	8	7	5
46	No	28	5	7	7	7
31	No	10	2	9	7	8
25	No	6	2	6	1	5
45	No	21	2	20	4	10
36	No	16	2	15	10	11
55	No	37	2	36	4	13
47	Yes	10	4	10	9	9
21	No	3	3	3	1	0

SCREENSHOT:



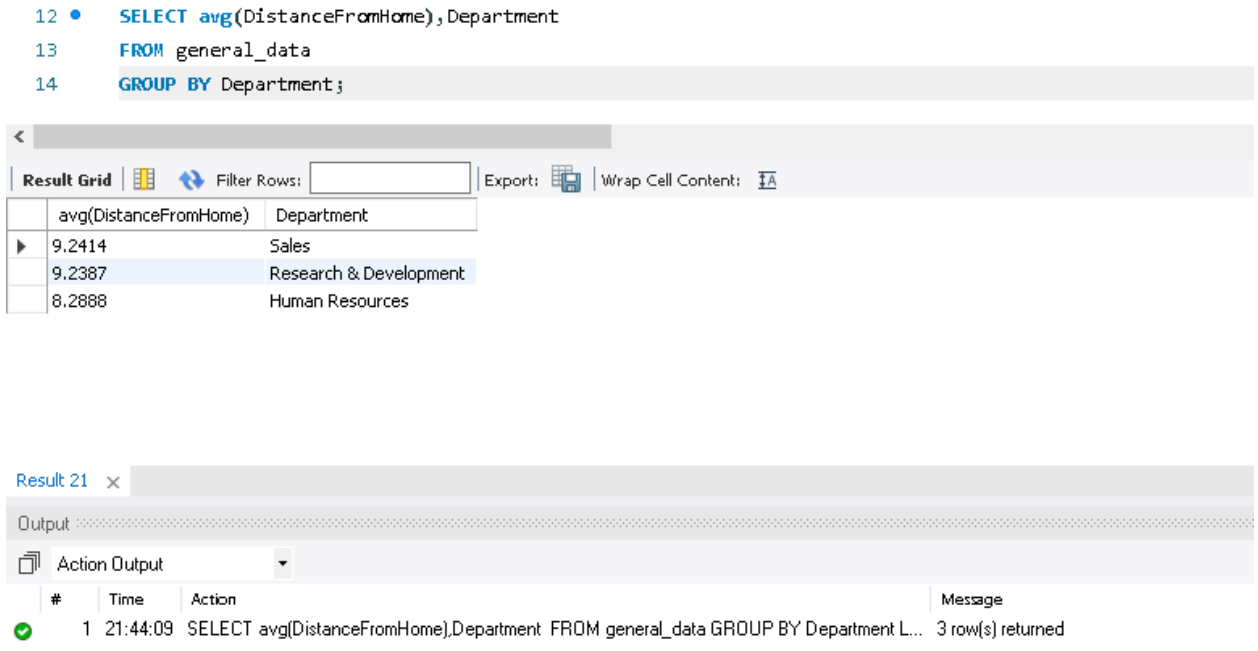
12. Find the average distance from home for employees in each department.

INPUT: SELECT avg(DistanceFromHome),Department
FROM general_data
GROUP BY Department;

OUTPUT:

9.2414	Sales
9.2387	Research & Development
8.2888	Human Resources

SCREENSHOT:



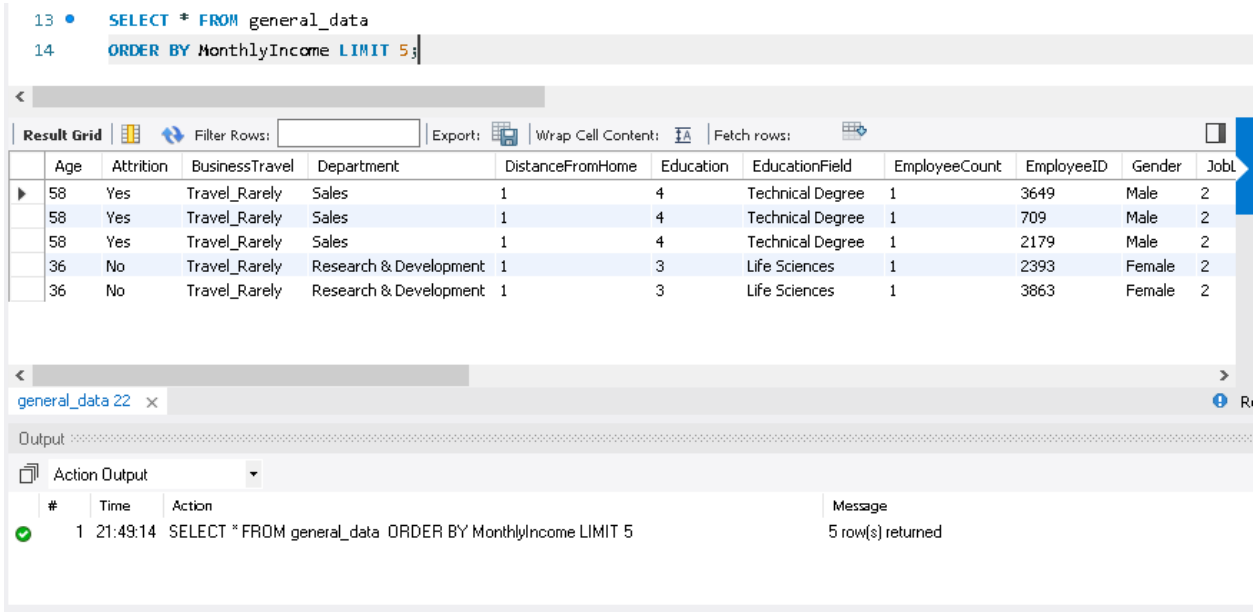
13. Retrieve the top 5 employees with the highest MonthlyIncome.

INPUT: SELECT * FROM general_data
ORDER BY MonthlyIncome LIMIT 5;

OUTPUT:

58	Yes	Travel_Rarely	Sales	10090
58	Yes	Travel_Rarely	Sales	10090
58	Yes	Travel_Rarely	Sales	10090
36	No	Travel_Rarely	Research & Development	10510
36	No	Travel_Rarely	Research & Development	10510

SCREENSHOT:



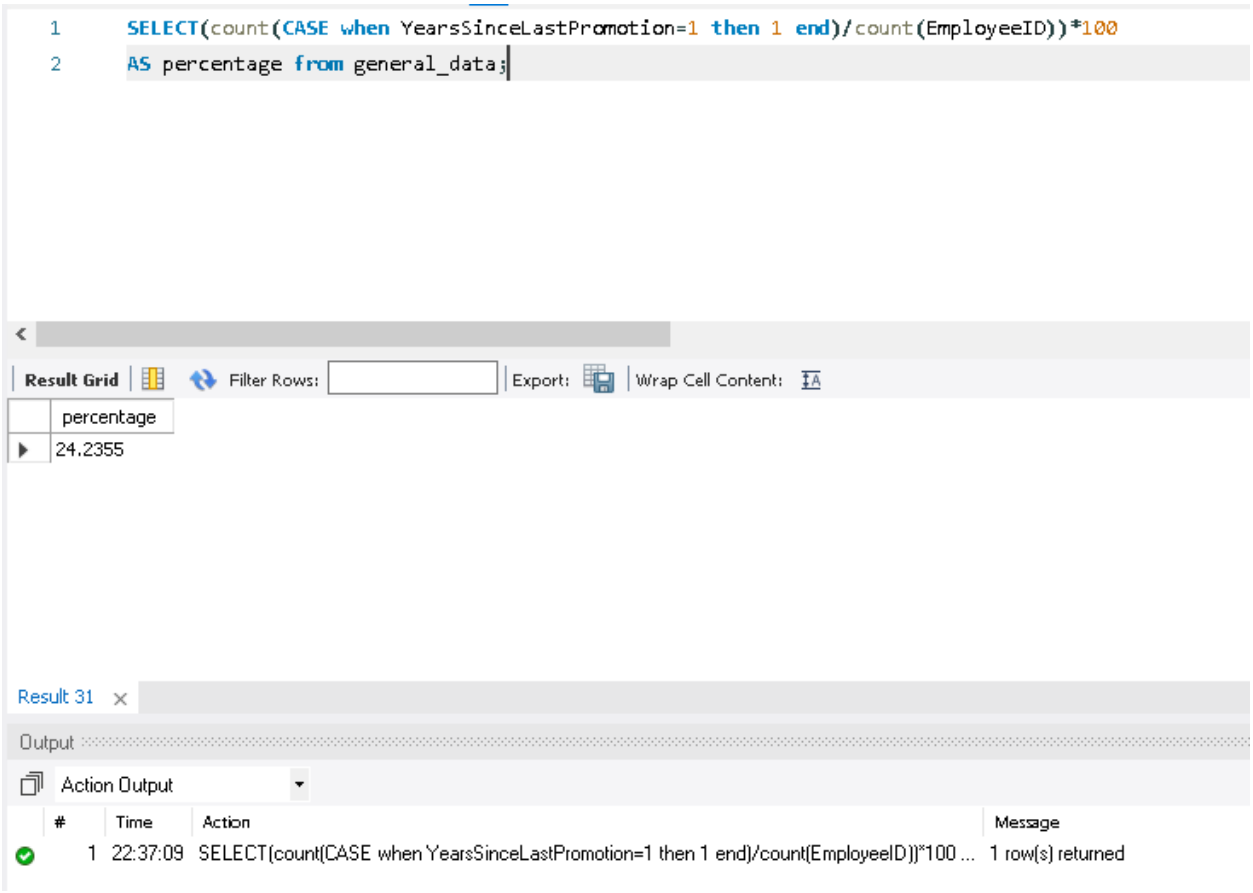
14. Calculate the percentage of employees who have had a promotion in the last year.

INPUT:

```
SELECT(count(CASE when YearsSinceLastPromotion=1 then 1
end)/count(EmployeeID))*100
AS percentage from general_data;
```

OUTPUT: 24.2355

SCREENSHOT:



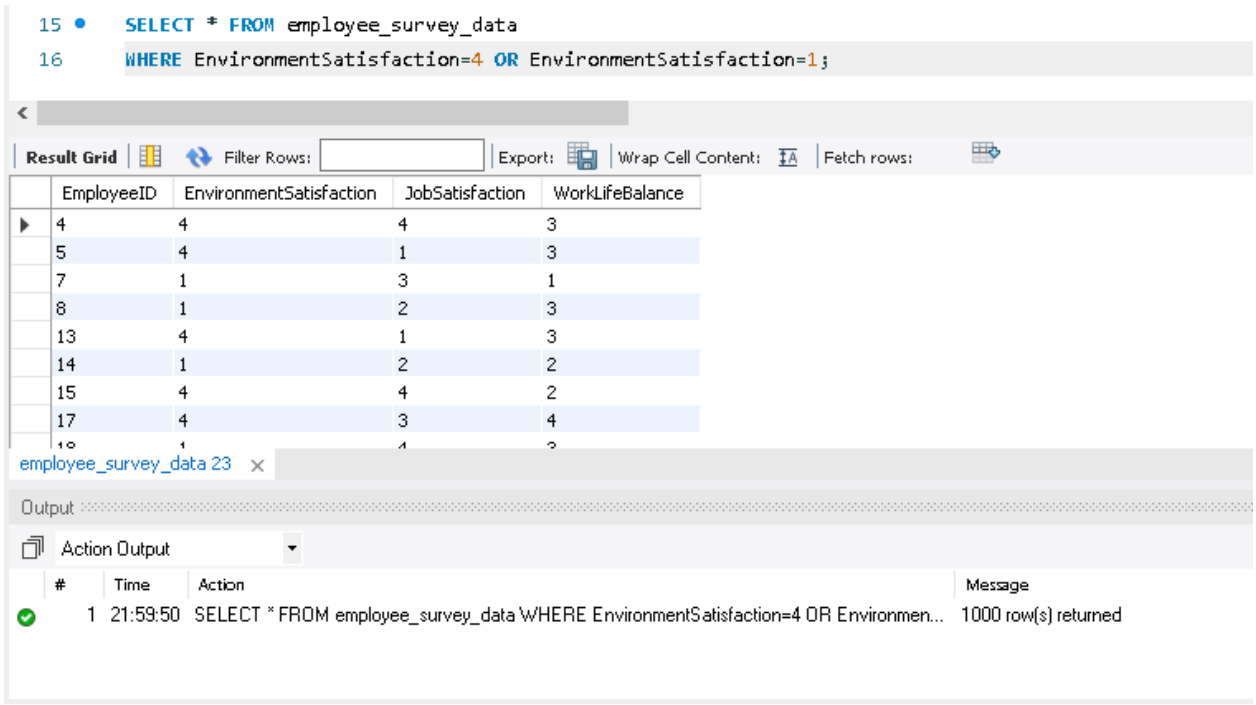
15. List the employees with the highest and lowest EnvironmentSatisfaction.

INPUT: SELECT * FROM employee_survey_data
WHERE EnvironmentSatisfaction=4 OR EnvironmentSatisfaction=1;

OUTPUT:

4	4	4	3
5	4	1	3
7	1	3	1
8	1	2	3
13	4	1	3
14	1	2	2
15	4	4	2
17	4	3	4
18	1	4	3
20	1	1	3

SCREENSHOT:



16. Find the employees who have the same JobRole and MaritalStatus.

INPUT:

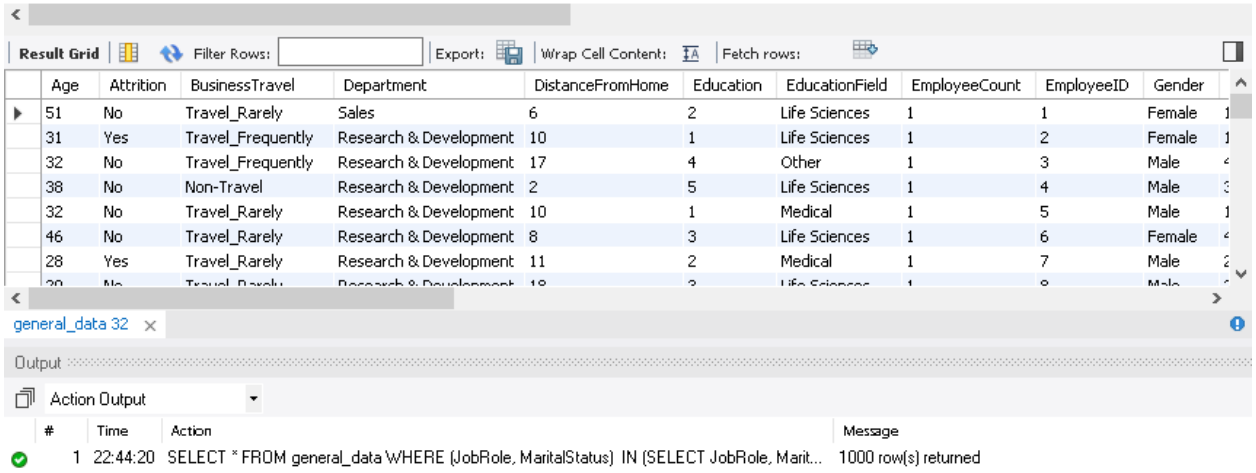
```
SELECT * FROM general_data
WHERE (JobRole, MaritalStatus)
IN (SELECT JobRole, MaritalStatus FORM general_data
GROUP BY JobRole, MaritalStatus
HAVING count(EmployeeID)>1);
```

OUTPUT:

51	No	Healthcare Representative	Married
31	Yes	Research Scientist	Single
32	No	Sales Executive	Married
38	No	Human Resources	Married
32	No	Sales Executive	Single
46	No	Research Director	Married
28	Yes	Sales Executive	Single
29	No	Sales Executive	Married
31	No	Laboratory Technician	Married
25	No	Laboratory Technician	Divorced

SCREENSHOT:

```
3 •  SELECT * FROM general_data
4    WHERE (JobRole, MaritalStatus)
5    IN (SELECT JobRole, MaritalStatus FROM general_data
6    GROUP BY JobRole, MaritalStatus
7    HAVING count(EmployeeID)>1);
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Age	Attrition	BusinessTravel	Department	DistanceFromHome	Education	EducationField	EmployeeCount	EmployeeID	Gender
51	No	Travel_Rarely	Sales	6	2	Life Sciences	1	1	Female
31	Yes	Travel_Frequently	Research & Development	10	1	Life Sciences	1	2	Female
32	No	Travel_Frequently	Research & Development	17	4	Other	1	3	Male
38	No	Non-Travel	Research & Development	2	5	Life Sciences	1	4	Male
32	No	Travel_Rarely	Research & Development	10	1	Medical	1	5	Male
46	No	Travel_Rarely	Research & Development	8	3	Life Sciences	1	6	Female
28	Yes	Travel_Rarely	Research & Development	11	2	Medical	1	7	Male

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Output

Action Output

#	Time	Action	Message
1	22:44:20	SELECT * FROM general_data WHERE (JobRole, MaritalStatus) IN (SELECT JobRole, Marit...	1000 row(s) returned

17. List the employees with the highest TotalWorkingYears who also have a PerformanceRating of 4.

INPUT:

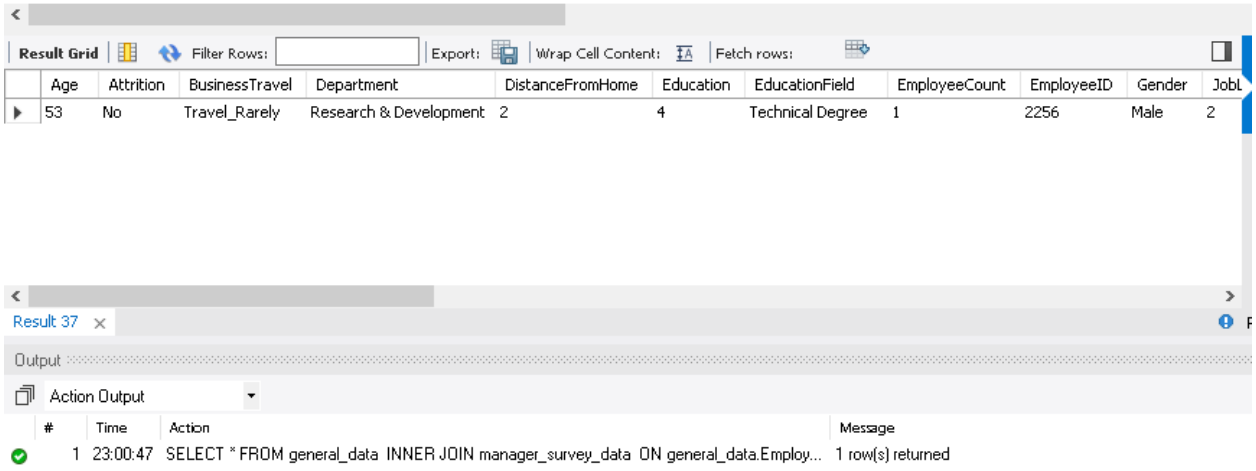
```
SELECT * FROM general_data
INNER JOIN manager_survey_data
ON general_data.EmployeeID=manager_survey_data.EmployeeID
WHERE manager_survey_data.PerformanceRating=4
ORDER BY TotalWorkingYears DESC LIMIT 1;
```

OUTPUT:

53	No…	…35	2	9	8	8	2256	3	4

SCREENSHOT:

```
SELECT * FROM general_data
INNER JOIN manager_survey_data
ON general_data.EmployeeID=manager_survey_data.EmployeeID
WHERE manager_survey_data.PerformanceRating=4
ORDER BY TotalWorkingYears DESC LIMIT 1;
```



18. Calculate the average Age and JobSatisfaction for each BusinessTravel type.

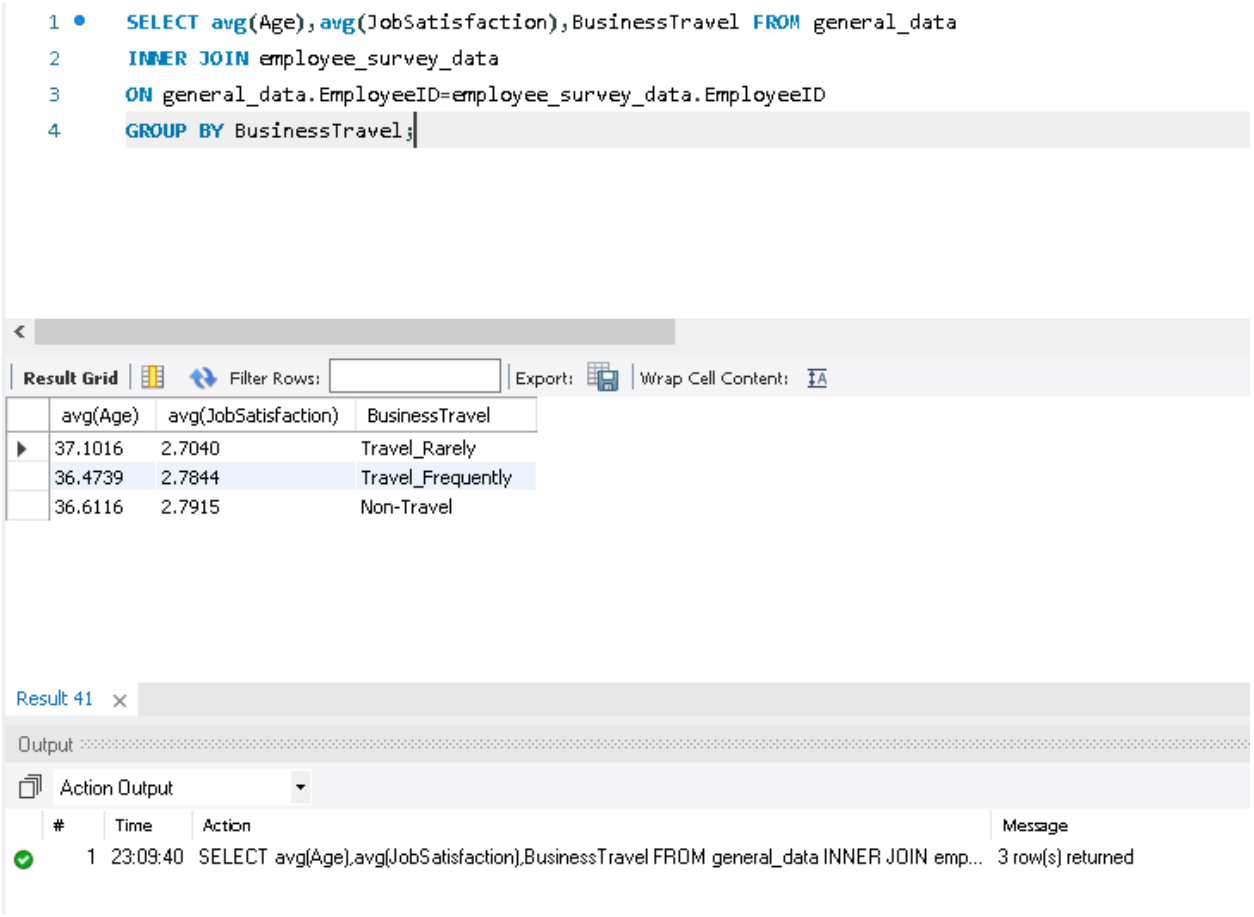
INPUT:

```
SELECT avg(Age),avg(JobSatisfaction),BusinessTravel FROM general_data
INNER JOIN employee_survey_data
ON general_data.EmployeeID=employee_survey_data.EmployeeID
GROUP BY BusinessTravel;
```

OUTPUT:

37.1016	2.704	Travel_Rarely
36.4739	2.7844	Travel_Frequently
36.6116	2.7915	Non-Travel

SCREENSHOT:



19. Retrieve the most common EducationField among employees.

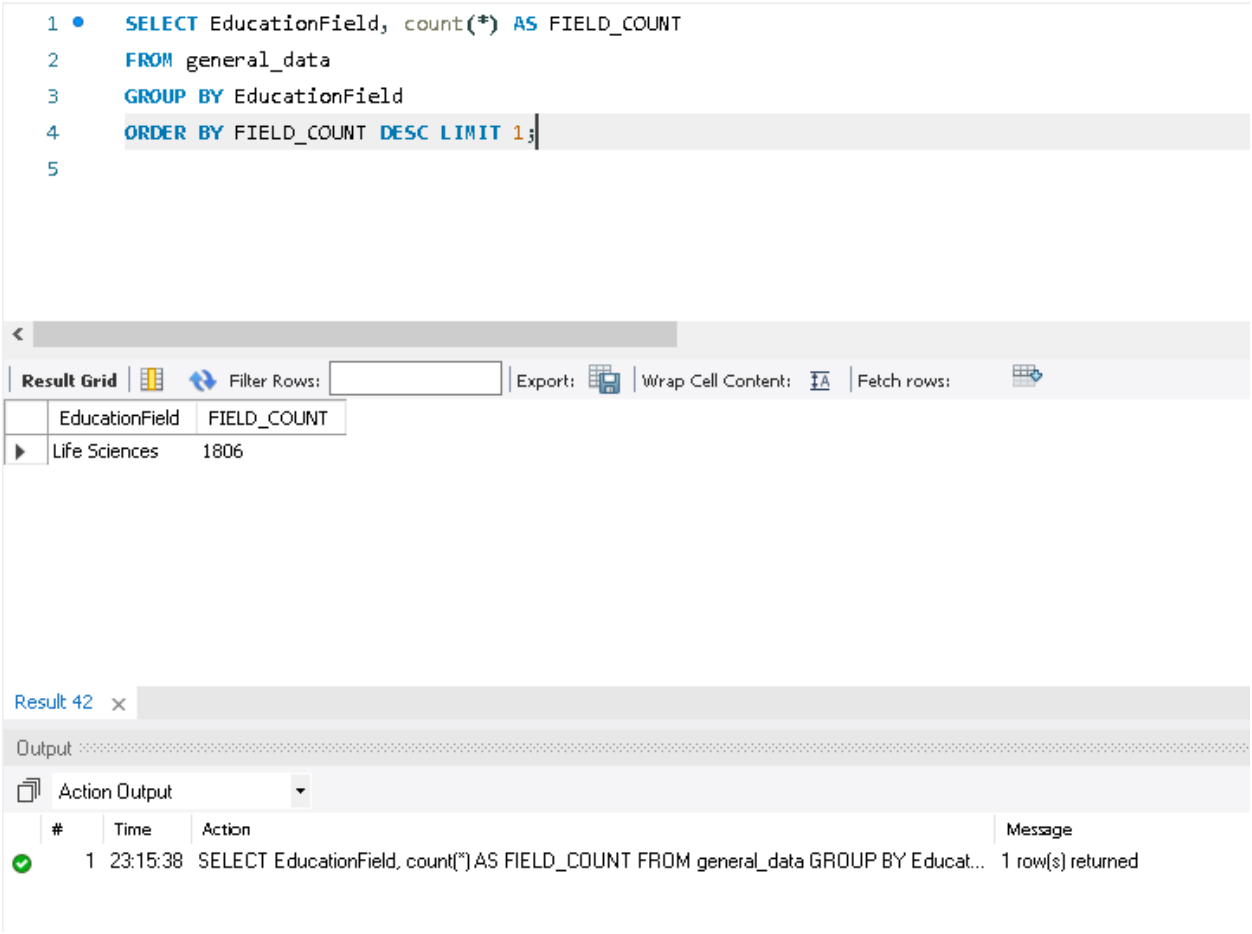
INPUT:

```
SELECT EducationField, count(*) AS FIELD_COUNT
FROM general_data
GROUP BY EducationField
ORDER BY FIELD_COUNT DESC LIMIT 1;
```

OUTPUT:

Life Sciences	1806

SCREENSHOT:



20. List the employees who have worked for the company the longest but haven't had a promotion.

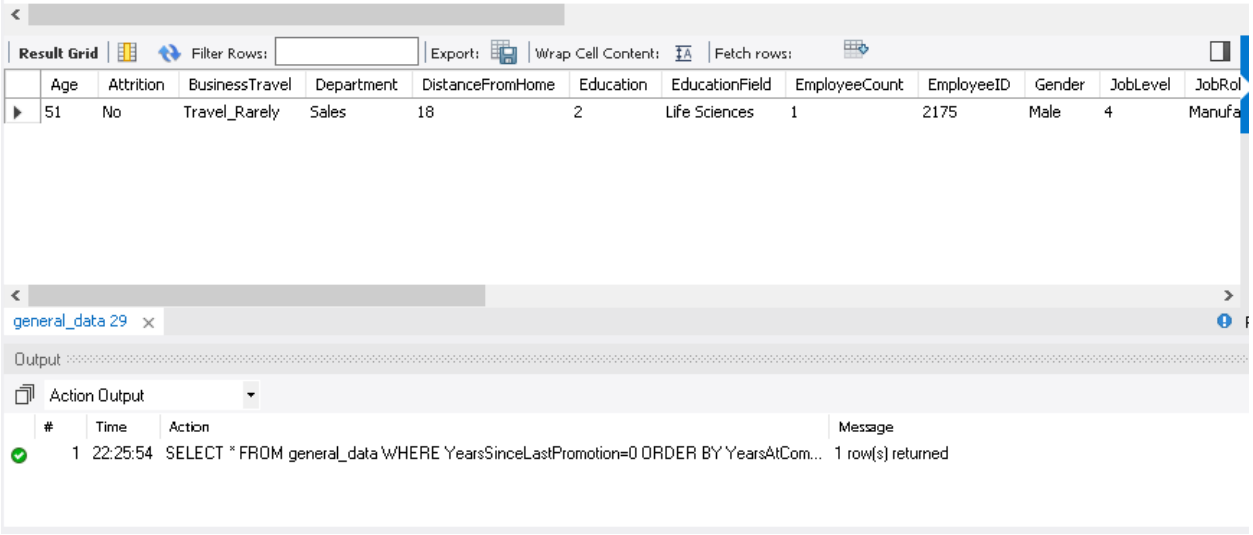
INPUT: SELECT * FROM general_data
WHERE YearsSinceLastPromotion=0
ORDER BY YearsAtCompany DESC LIMIT 1;

OUTPUT:

51	No	33	2	33	0	10

SCREENSHOT:

```sql
SELECT * FROM general_data
WHERE YearsSinceLastPromotion=0
ORDER BY YearsAtCompany DESC LIMIT 1;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Age	Attrition	BusinessTravel	Department	DistanceFromHome	Education	EducationField	EmployeeCount	EmployeeID	Gender	JobLevel	JobRol
51	No	Travel_Rarely	Sales	18	2	Life Sciences	1	2175	Male	4	Manufa

general_data 29

Output

Action Output

#	Time	Action	Message
1	22:25:54	SELECT * FROM general_data WHERE YearsSinceLastPromotion=0 ORDER BY YearsAtCom...	1 row(s) returned