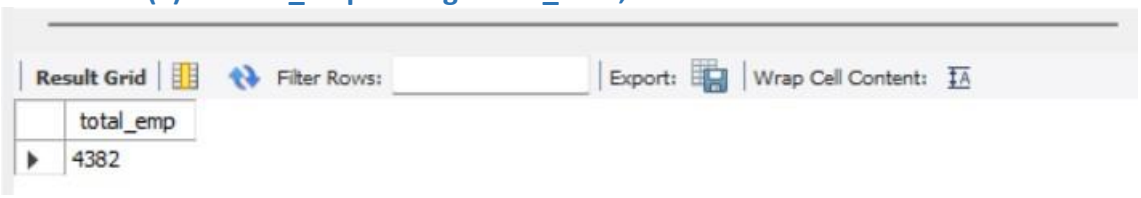
Pooja SP

SQL PROJECT

HR DATA ANALYSIS

#1 Retrieve the total number of employees in the dataset

```
select count(*) as total_emp from general_data;
```

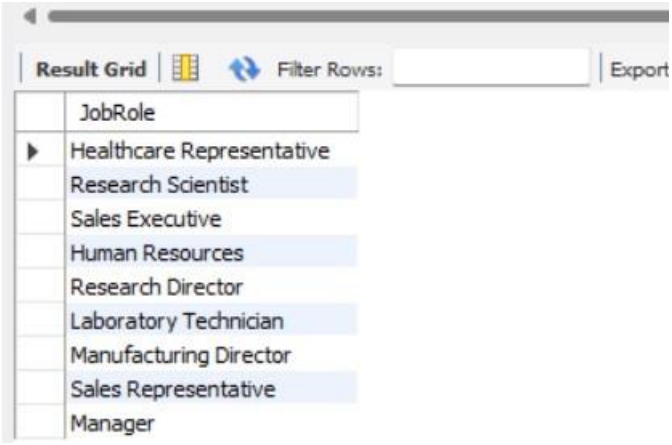


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

total_emp
4382

#2 List all unique job roles in the dataset.

```
select distinct (JobRole) from general_data;
```



Result Grid | Filter Rows: | Export

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

#3 Find the average age of employees.

```
select avg(age)as avg_age from general_data;
```

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

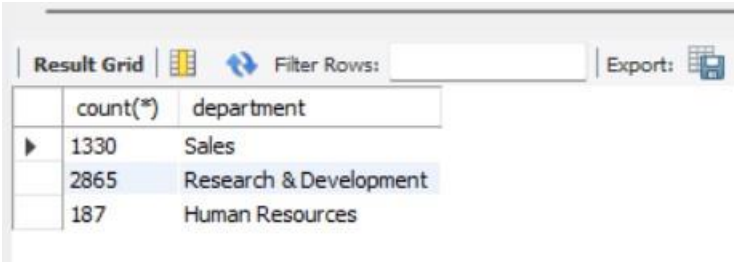
avg_age
36.9334

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

```
select Emp Name,age from general_data

where yearsatcompany > 5;
```

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

```
select count(*),department from general_data

group by department;
```

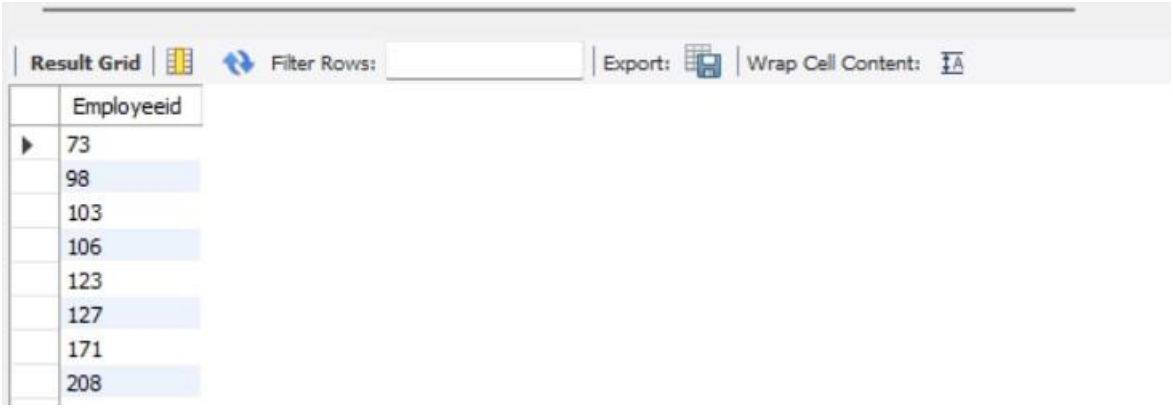


Result Grid | Filter Rows: | Export:

count(*)	department
1330	Sales
2865	Research & Development
187	Human Resources

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

```
select Employeeid from general_data order by  joblevel=5;
```



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

Employeeid
73
98
103
106
123
127
171
208

#7. Find the highest Monthly Income in the dataset.

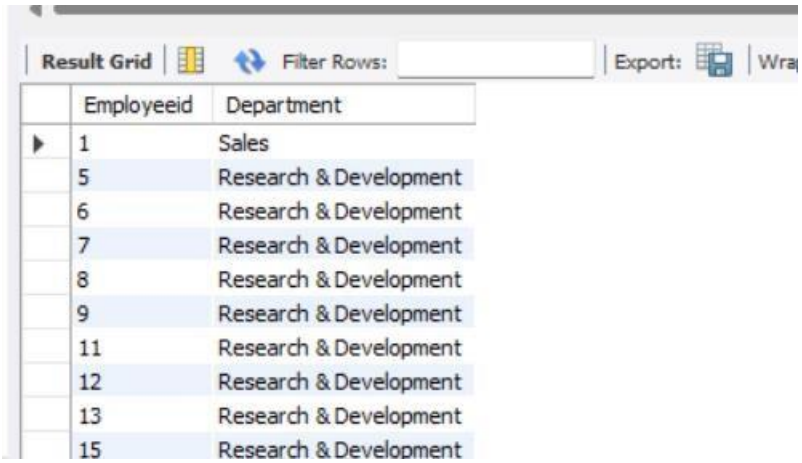
```
select Max(monthlyincome) as high_income from general_data;
```

Result Grid | Filter Rows: | Export:

high_income
199990

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

```
select Employeeid, Department from general_data where BusinessTravel='Travel_rarely';
```

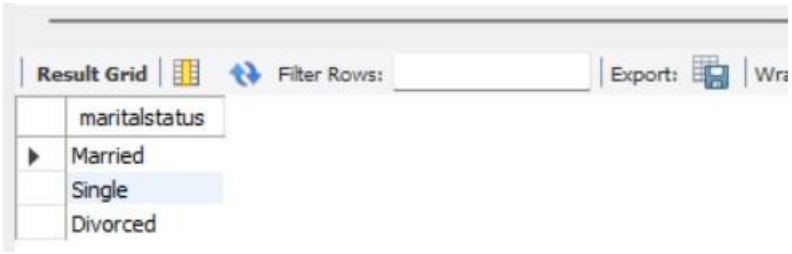


Result Grid | Filter Rows: | Export: | Wra

Employeeid	Department
1	Sales
5	Research & Development
6	Research & Development
7	Research & Development
8	Research & Development
9	Research & Development
11	Research & Development
12	Research & Development
13	Research & Development
15	Research & Development

#9. Retrieve the distinct MaritalStatus categories in the dataset.

```
select distinct maritalstatus from general_data;
```



Result Grid | Filter Rows: | Export: | Wra

maritalstatus
Married
Single
Divorced

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

```
select employeeid ,totalworkingyears from general_data

where totalworkingyears >2 and totalworkingyears < 4;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cont

employeeid	totalworkingyears
17	3
55	3
100	3
105	3
112	3
128	3
158	3

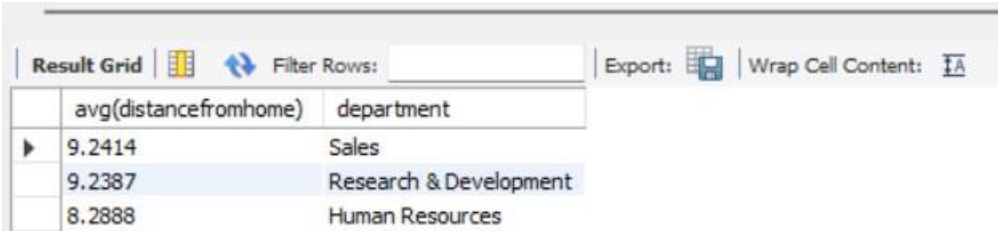
#11 List employees who have changed their job roles within the company (JobLevel and JobRole differ from their previous job)

```
SELECT

   EmployeeID,

   PreviousJobLevel,

   PreviousJobRole,
```

```
    CurrentJobLevel,
    CurrentJobRole
FROM (
    SELECT
        EmployeeID,
        JobLevel AS CurrentJobLevel,
        JobRole AS CurrentJobRole,
        LAG(JobLevel) OVER (PARTITION BY EmployeeID ORDER BY yearsatcompany) AS
PreviousJobLevel,
        LAG(JobRole) OVER (PARTITION BY EmployeeID ORDER BY yearsatcompany) AS
PreviousJobRole
    FROM general_data
) AS jobchange
WHERE CurrentJobLevel <> PreviousJobLevel OR CurrentJobRole <> PreviousJobRole;
```

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

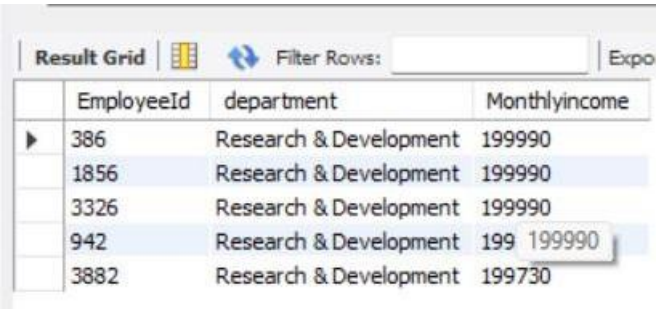
```
select avg(distancefromhome), department from general_data
group by department;
```



avg(distancefromhome)	department
9.2414	Sales
9.2387	Research & Development
8.2888	Human Resources

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

```
select EmployeeId, department,Monthlyincome from general_data
order by monthlyincome desc
limit 5;
```

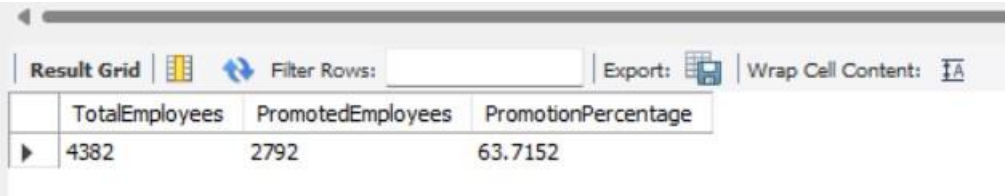


Result Grid | Filter Rows: | Expo

EmployeeId	department	Monthlyincome
386	Research & Development	199990
1856	Research & Development	199990
3326	Research & Development	199990
942	Research & Development	199 199990
3882	Research & Development	199730

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

```
SELECT COUNT(*) AS TotalEmployees, SUM(CASE WHEN YearsSinceLastPromotion <= 1
THEN 1 ELSE 0 END) AS PromotedEmployees,

(SUM(CASE WHEN YearsSinceLastPromotion <= 1 THEN 1 ELSE 0 END) / COUNT(*)) * 100
AS PromotionPercentage

FROM general_data;
```



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

TotalEmployees	PromotedEmployees	PromotionPercentage
4382	2792	63.7152

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

#high

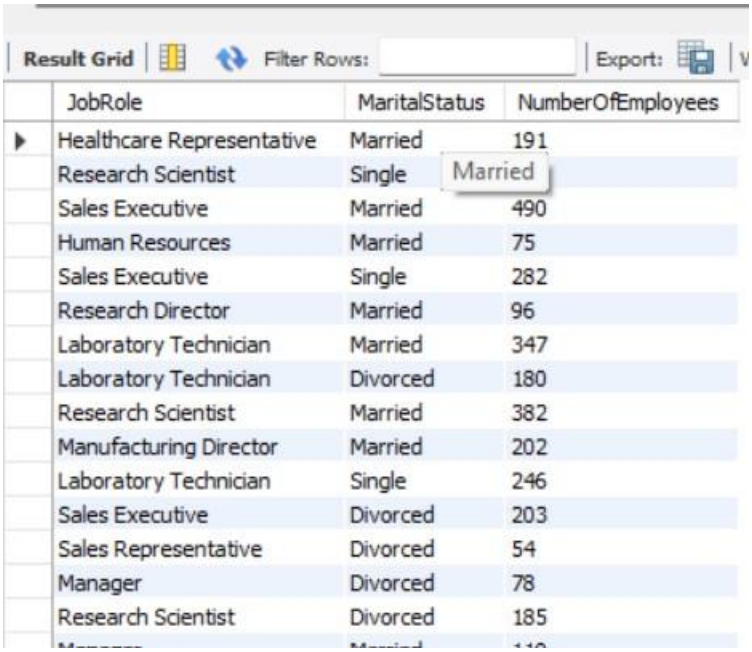
```
SELECT EmployeeID, EnvironmentSatisfaction FROM general_data

ORDER BY EnvironmentSatisfaction DESC

limit 1;
```

#low

```
SELECT EmployeeID, EnvironmentSatisfaction FROM general_data

ORDER BY EnvironmentSatisfaction ASC

limit 1;
```

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

```
SELECT JobRole, MaritalStatus, COUNT(*) AS NumberOfEmployees

FROM general_data

GROUP BY JobRole, MaritalStatus

HAVING COUNT(*) > 1;
```



Result Grid | Filter Rows: | Export:

JobRole	MaritalStatus	NumberOfEmployees
Healthcare Representative	Married	191
Research Scientist	Single	Married
Sales Executive	Married	490
Human Resources	Married	75
Sales Executive	Single	282
Research Director	Married	96
Laboratory Technician	Married	347
Laboratory Technician	Divorced	180
Research Scientist	Married	382
Manufacturing Director	Married	202
Laboratory Technician	Single	246
Sales Executive	Divorced	203
Sales Representative	Divorced	54
Manager	Divorced	78
Research Scientist	Divorced	185

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

```
SELECT EmployeeID, TotalWorkingYears, joblevel

FROM general_data

WHERE joblevel = 4

ORDER BY TotalWorkingYears DESC;
```

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

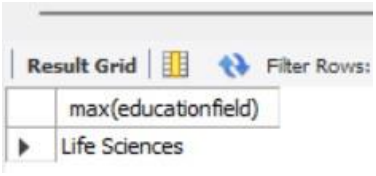
EmployeeID	TotalWorkingYears	joblevel
367	35	4
1837	35	4
3307	35	4
492	33	4
705	33	4
1962	33	4
2175	33	4
3432	33	4
3645	33	4

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

```
select avg(age),jobsatisfication,businesstravel

from general_data

group by jobsatisfication,businesstravel;
```

#19. Retrieve the most common EducationField among employees.

```
select max(educationfield) from general_data
group by educationfield
limit 1;
```

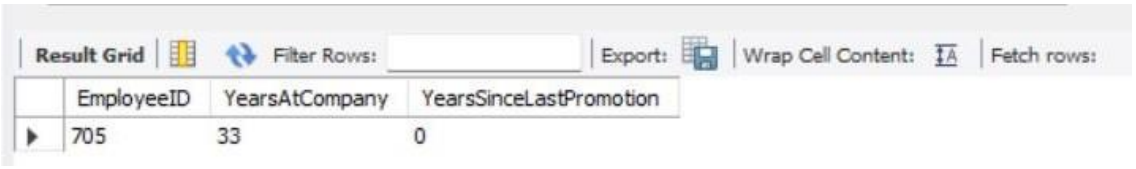


Result Grid | Filter Rows:

	max(educationfield)
▶	Life Sciences

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

```
SELECT EmployeeID, YearsAtCompany, YearsSinceLastPromotion
FROM general_data
WHERE YearsSinceLastPromotion IS NULL OR YearsSinceLastPromotion = 0
ORDER BY YearsAtCompany DESC
LIMIT 1;
```



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

	EmployeeID	YearsAtCompany	YearsSinceLastPromotion
▶	705	33	0