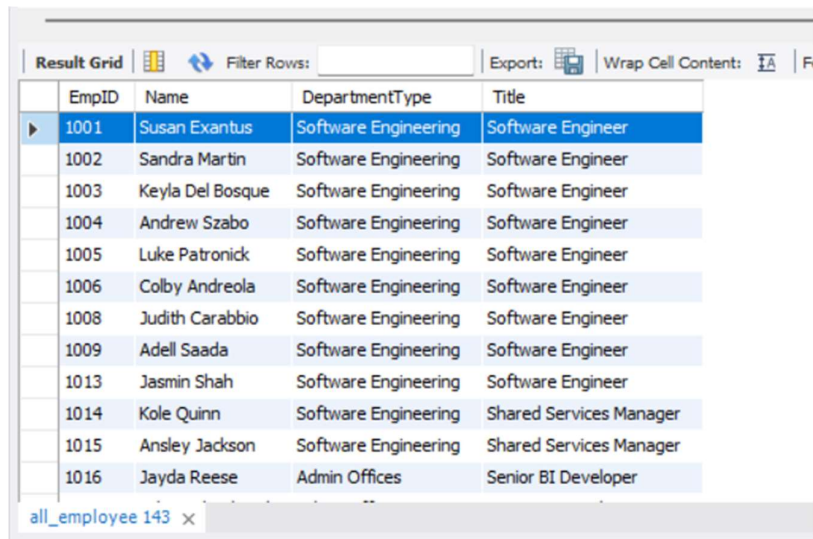


# Employees/HR Analytics SQL Project

1. List all active employees along with their department and job title.

```
SELECT * FROM all_employee;
```



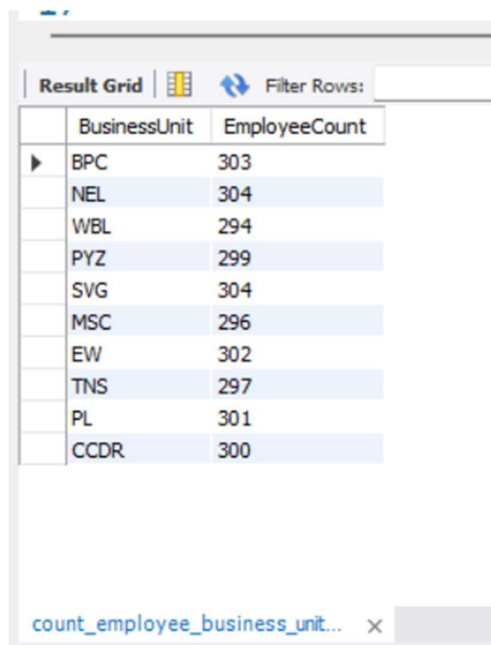
The screenshot shows a SQL query result grid with the following data:

EmpID	Name	DepartmentType	Title
1001	Susan Exantus	Software Engineering	Software Engineer
1002	Sandra Martin	Software Engineering	Software Engineer
1003	Keyla Del Bosque	Software Engineering	Software Engineer
1004	Andrew Szabo	Software Engineering	Software Engineer
1005	Luke Patronick	Software Engineering	Software Engineer
1006	Colby Andreola	Software Engineering	Software Engineer
1008	Judith Carabbio	Software Engineering	Software Engineer
1009	Adell Saada	Software Engineering	Software Engineer
1013	Jasmin Shah	Software Engineering	Software Engineer
1014	Kole Quinn	Software Engineering	Shared Services Manager
1015	Ansley Jackson	Software Engineering	Shared Services Manager
1016	Jayda Reese	Admin Offices	Senior BI Developer

The interface includes a 'Result Grid' tab, a 'Filter Rows' input field, and an 'Export' button. The query name 'all\_employee 143' is visible at the bottom.

2. Retrieve the count of employees in each business unit.

```
SELECT * FROM count_employee_business_unit;
```



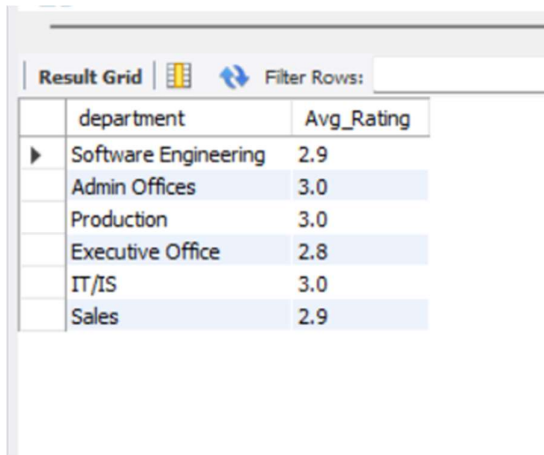
The screenshot shows a SQL query result grid with the following data:

BusinessUnit	EmployeeCount
BPC	303
NEL	304
WBL	294
PYZ	299
SVG	304
MSC	296
EW	302
TNS	297
PL	301
CCDR	300

The interface includes a 'Result Grid' tab, a 'Filter Rows' input field, and a query name 'count\_employee\_business\_unit...' is visible at the bottom.

3. Find the average current employee rating across all departments.

```
SELECT * FROM average_employee_rating_department;
```

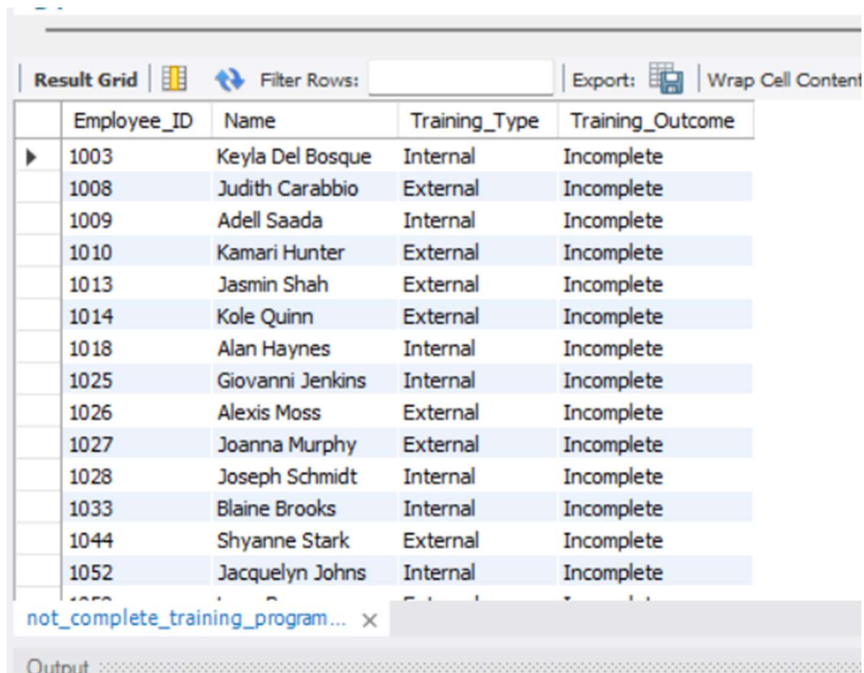


The screenshot shows a 'Result Grid' with a toolbar at the top containing icons for a grid, a refresh button, and a 'Filter Rows' input field. The table below has two columns: 'department' and 'Avg\_Rating'. The data is as follows:

department	Avg_Rating
Software Engineering	2.9
Admin Offices	3.0
Production	3.0
Executive Office	2.8
IT/IS	3.0
Sales	2.9

4. List employees who have not completed any training programs.

```
SELECT * FROM not_complete_training_programs;
```



The screenshot shows a 'Result Grid' with a toolbar at the top containing icons for a grid, a refresh button, a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' button. The table below has five columns: 'Employee\_ID', 'Name', 'Training\_Type', and 'Training\_Outcome'. The data is as follows:

Employee_ID	Name	Training_Type	Training_Outcome
1003	Keyla Del Bosque	Internal	Incomplete
1008	Judith Carabbio	External	Incomplete
1009	Adell Saada	Internal	Incomplete
1010	Kamari Hunter	External	Incomplete
1013	Jasmin Shah	External	Incomplete
1014	Kole Quinn	External	Incomplete
1018	Alan Haynes	Internal	Incomplete
1025	Giovanni Jenkins	Internal	Incomplete
1026	Alexis Moss	External	Incomplete
1027	Joanna Murphy	External	Incomplete
1028	Joseph Schmidt	Internal	Incomplete
1033	Blaine Brooks	Internal	Incomplete
1044	Shyanne Stark	External	Incomplete
1052	Jacquelyn Johns	Internal	Incomplete

Below the table, there is a tab labeled 'not\_complete\_training\_program...' and an 'Output' section.

5. Retrieve the top 10 applicants with the highest desired salary.

```
SELECT * FROM top_highest_salary;
```

Result Grid			
		Filter Rows:	
		Export:	
Applicant_ID	Name	Desired_Salary	
1507	Kim Hooper	99992.7	
3624	Latoya Greene	99992.3	
3502	Henry Patterson	99991.8	
1564	Stephanie Roberts	99980	
3068	Michael Andrade	99976.5	
2954	Laura Rhodes	99960.9	
1665	Cheyenne Murphy	99926.3	
1272	Victoria Acosta	99917.5	
2999	Erica Moore	99842.3	
1660	Dawn Cowan	99836.8	

top\_highest\_salary 147 x

Output

- Find the number of training programs each employee has completed.

```
SELECT * FROM training_program_complete;
```



Result Grid			
		Filter Rows:	
		Export:	
EmpID	Name	TrainingCount	
1001	Susan Exantus	1	
1002	Sandra Martin	1	
1003	Keyla Del Bosque	1	
1004	Andrew Szabo	1	
1005	Luke Patronick	1	
1006	Colby Andreola	1	
1007	Edward TRUE	1	
1008	Judith Carabbio	1	
1009	Adell Saada	1	
1010	Kamari Hunter	1	
1011	Sarah Malone	1	
1012	Skyler Blackwell	1	
1013	Jasmin Shah	1	
1014	Kole Quinn	1	

training\_program\_complete 148 x

Output

- Find the average satisfaction score per division.

```
SELECT * FROM avg_satisfaction_per_division;
```

Result Grid			 Filter Rows: <input type="text"/>	E
	Division	AvgSatisfaction		
▶	Engineers	3.1		
	Catv	3.3		
	Field Operations	3.0		
	Project Management - Con	3.0		
	General - Con	3.0		
	General - Eng	3.0		
	People Services	2.9		
	Shop (Fleet)	3.0		
	Fielders	3.1		
	Aerial	3.2		
	Underground	3.2		
	Finance & Accounting	3.1		
	Splicing	3.0		
	Wireline Construction	2.9		
avg_satisfaction_per_division 149 x				

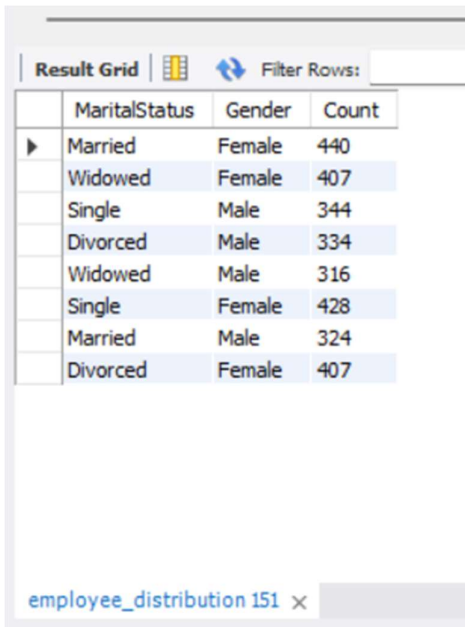
8. List all applicants who have more than 5 years of experience and a desired salary less than \$60,000.

```
SELECT * FROM exprience_less_salary;
```

Result Grid					Filter Rows:		Export:	Wrap Cell Content:
	Applicant_ID	Name	Years_of_Experience	Desired_Salary				
►	1003	Javier Li	20	39422.7				
	1004	Christopher Johnston	8	51045.1				
	1009	Rachael Duran	15	44489.6				
	1011	Jennifer Weaver	19	39252.4				
	1014	Heidi Wood	9	59082.6				
	1018	John Coleman	20	52923.2				
	1019	Adam Best	12	47680.6				
	1020	Cheryl Peterson	6	36560.4				
	1022	Gabriel Norris	17	35317.9				
	1024	Thomas Phillips	10	52499.4				
	1025	Nicholas Conley	15	44240.3				
	1026	Jennifer Austin	8	53070.8				
	1028	Barbara Lopez	19	57262.2				
	1030	Duane Lee	12	36106.1				
exprience_less_salary 150 x								
Output								

9. Show employee distribution by marital status and gender.

```
SELECT * FROM employee_distribution;
```



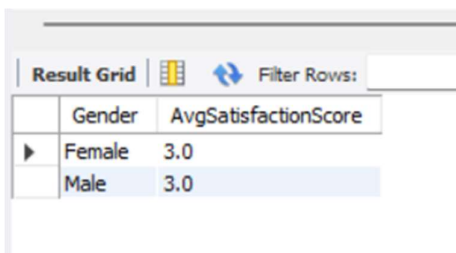
The screenshot shows a SQL query result grid with the following data:

	MaritalStatus	Gender	Count
▶	Married	Female	440
	Widowed	Female	407
	Single	Male	344
	Divorced	Male	334
	Widowed	Male	316
	Single	Female	428
	Married	Male	324
	Divorced	Female	407

At the bottom of the window, there is a tab labeled "employee\_distribution 151" with a close button (x).

10. Compare average satisfaction score between male and female employees.

```
SELECT * FROM avg_satisfaction_gender;
```

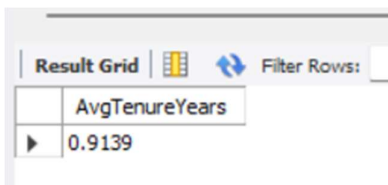


The screenshot shows a SQL query result grid with the following data:

	Gender	AvgSatisfactionScore
▶	Female	3.0
	Male	3.0

11. Find the average tenure (Exit Date - StartDate) of employees who left the company.

```
SELECT * FROM avg_tenure;
```

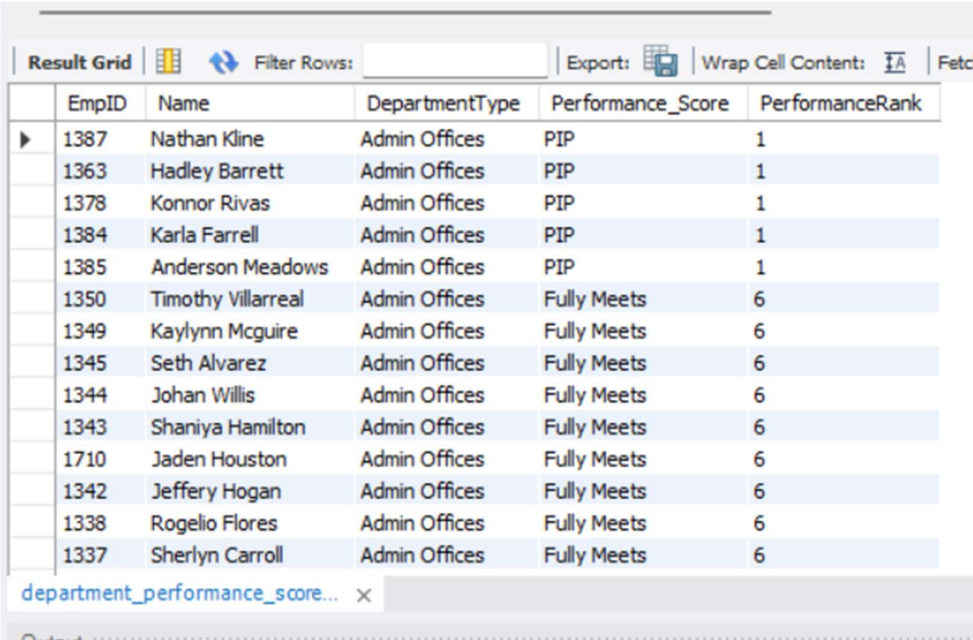


The screenshot shows a SQL query result grid with the following data:

	AvgTenureYears
▶	0.9139

12. Rank all employees within their department by performance score.

```
SELECT * FROM department_performance_score;
```

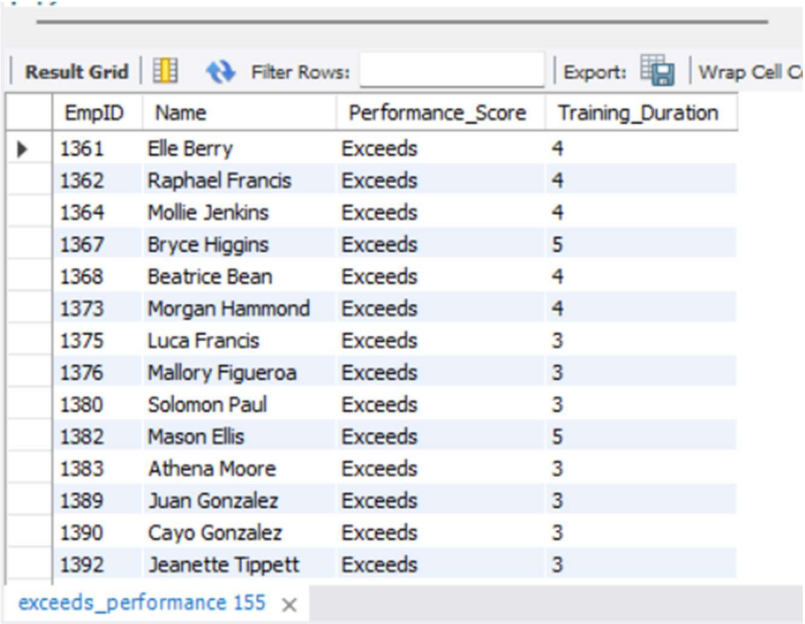


The screenshot shows a database query result grid with the following data:

EmpID	Name	DepartmentType	Performance_Score	PerformanceRank
1387	Nathan Kline	Admin Offices	PIP	1
1363	Hadley Barrett	Admin Offices	PIP	1
1378	Konnor Rivas	Admin Offices	PIP	1
1384	Karla Farrell	Admin Offices	PIP	1
1385	Anderson Meadows	Admin Offices	PIP	1
1350	Timothy Villarreal	Admin Offices	Fully Meets	6
1349	Kaylynn Mcguire	Admin Offices	Fully Meets	6
1345	Seth Alvarez	Admin Offices	Fully Meets	6
1344	Johan Willis	Admin Offices	Fully Meets	6
1343	Shaniya Hamilton	Admin Offices	Fully Meets	6
1710	Jaden Houston	Admin Offices	Fully Meets	6
1342	Jeffery Hogan	Admin Offices	Fully Meets	6
1338	Rogelio Flores	Admin Offices	Fully Meets	6
1337	Sherlyn Carroll	Admin Offices	Fully Meets	6

13. List employees whose performance score is 'Exceeds Expectations' and have completed more than 3 training programs.

```
SELECT * FROM exceeds_performance;
```

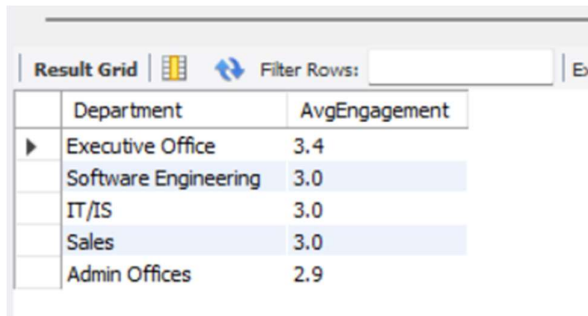


The screenshot shows a database query result grid with the following data:

EmpID	Name	Performance_Score	Training_Duration
1361	Elle Berry	Exceeds	4
1362	Raphael Francis	Exceeds	4
1364	Mollie Jenkins	Exceeds	4
1367	Bryce Higgins	Exceeds	5
1368	Beatrice Bean	Exceeds	4
1373	Morgan Hammond	Exceeds	4
1375	Luca Francis	Exceeds	3
1376	Mallory Figueroa	Exceeds	3
1380	Solomon Paul	Exceeds	3
1382	Mason Ellis	Exceeds	5
1383	Athena Moore	Exceeds	3
1389	Juan Gonzalez	Exceeds	3
1390	Cayo Gonzalez	Exceeds	3
1392	Jeanette Tippet	Exceeds	3

14. Identify the top 5 departments with the highest average engagement scores.

```
SELECT * FROM deparmently_engagement_scores;
```

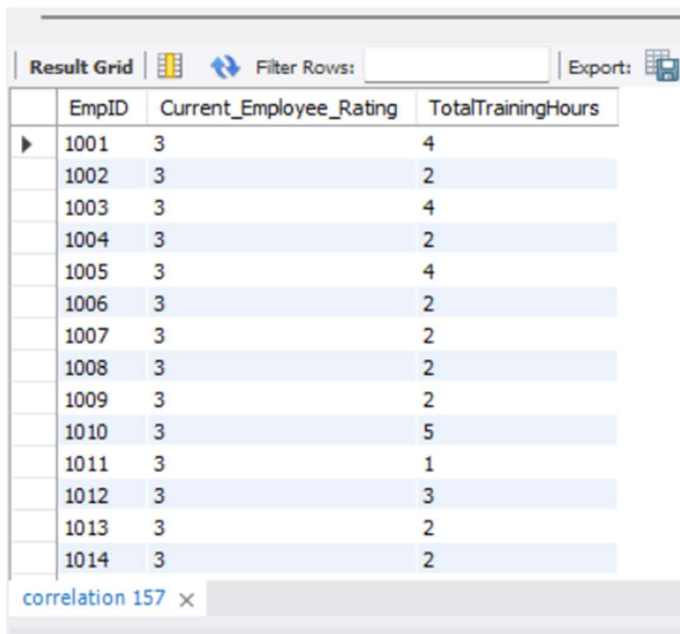


The screenshot shows a SQL query result grid with the following data:

Department	AvgEngagement
Executive Office	3.4
Software Engineering	3.0
IT/IS	3.0
Sales	3.0
Admin Offices	2.9

15. Find the correlation between training hours and current employee rating.

```
SELECT * FROM correlation;
```



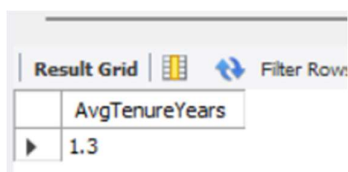
The screenshot shows a SQL query result grid with the following data:

EmpID	Current_Employee_Rating	TotalTrainingHours
1001	3	4
1002	3	2
1003	3	4
1004	3	2
1005	3	4
1006	3	2
1007	3	2
1008	3	2
1009	3	2
1010	3	5
1011	3	1
1012	3	3
1013	3	2
1014	3	2

correlation 157 x

16. Calculate the average tenure of employees who have left the company.

```
SELECT * FROM avg_tenure_employee;
```

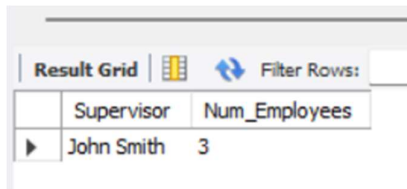


The screenshot shows a SQL query result grid with the following data:

AvgTenureYears
1.3

17. Determine which supervisor manages the most employees.

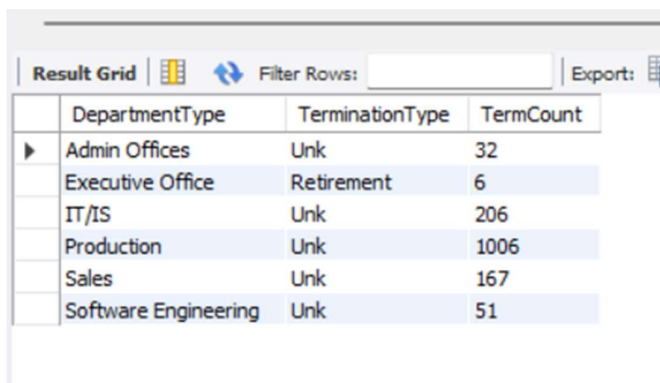
```
SELECT * FROM supervisor;
```



Supervisor	Num_Employees
John Smith	3

18. Identify the most common termination type by department.

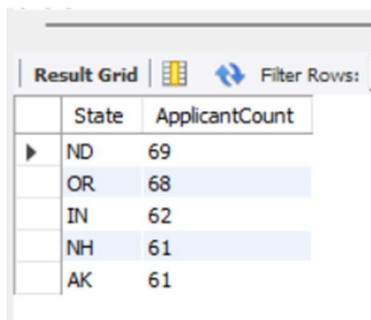
```
SELECT * FROM common_termination;
```



DepartmentType	TerminationType	TermCount
Admin Offices	Unk	32
Executive Office	Retirement	6
IT/IS	Unk	206
Production	Unk	1006
Sales	Unk	167
Software Engineering	Unk	51

19. List the top 5 states with the highest number of applicants.

```
SELECT * FROM top_state;
```



State	ApplicantCount
ND	69
OR	68
IN	62
NH	61
AK	61

20. Retrieve a list of applicants with more experience than the average.

```
SELECT * FROM exprience;
```



Result Grid			
		Filter Rows:	Export:
	Applicant_ID	Name	Years_of_Experience
▶	1002	Stanley Lewis	17
	1003	Javier Li	20
	1006	Christian Maddox	18
	1007	Paul Hammond	11
	1009	Rachael Duran	15
	1011	Jennifer Weaver	19
	1013	James Bailey	12
	1017	Anita Jenkins	20
	1018	John Coleman	20
	1019	Adam Best	12
	1021	Rebecca Jensen	15
	1022	Gabriel Norris	17
	1023	Anne Murphy	11
	1024	Thomas Phillips	10

experience 162 x

21. Create a rolling 3-month average of engagement scores per employee.

```
SELECT * FROM rolling_3_mon_avg;
```

Result Grid			
		Filter Rows:	Export:
	Employee_ID	Survey_date	Rolling_3_Month_Avg
▶	1001	2022-10-10	2
	1002	2023-08-03	4
	1003	2023-01-03	2
	1004	2023-07-30	3
	1005	2023-06-19	2
	1006	2023-05-03	5
	1007	2023-07-18	2
	1008	2023-06-21	5
	1009	2023-06-06	2
	1010	2022-09-15	2
	1011	2022-12-08	1
	1012	2023-01-13	3
	1013	2022-12-13	5
	1014	2023-06-28	4

rolling\_3\_mon\_avg 163 x

22. Calculate the average training hours per employee per department and rank departments accordingly.

```
SELECT * FROM Avg_Hours_Per_Employee;
```

Result Grid			Filter Rows:	Exp
	DepartmentType	Avg_Hours_Per_Employee		
▶	IT/IS	3.05		
	Production	2.97		
	Executive Office	2.96		
	Admin Offices	2.95		
	Sales	2.92		
	Software Engineering	2.91		

23. Identify departments where average satisfaction is below the company average.

```
SELECT * FROM dep_comp_avg;
```

Result Grid			Filter Rows:
	DepartmentType	DeptAvgScore	
▶	Admin Offices	2.5125	
	Production	3.0208	
	IT/IS	3.0093	

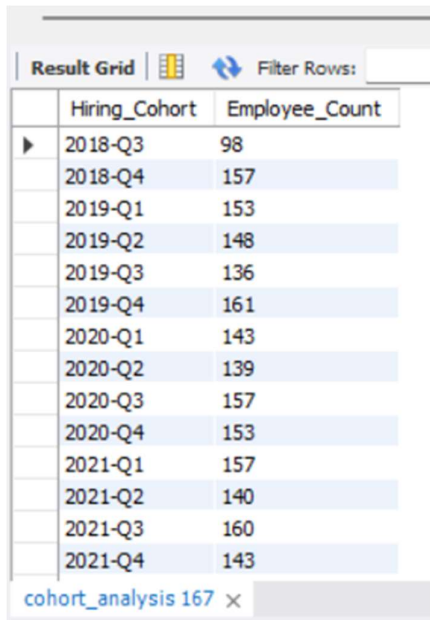
24. Create a list the top 3 employees in each division by current rating.

```
SELECT * FROM current_employee_rating;
```

Result Grid					Filter Rows:	Export:	Wrap Cell Content:
	EmpID	Name	Division	Current_Employee_Rating			
▶	3355	Darryl Ponce	Aerial	5			
	2604	Saniyah Cantu	Aerial	5			
	3295	Emmanuel Perkins	Aerial	5			
	3157	Deegan Pham	Billable Consultants	5			
	3091	Kali Hensley	Billable Consultants	5			
	2975	Bradley J Knapp	Billable Consultants	4			
	3140	Evie Beard	Catv	5			
	2239	Dario Whitney	Catv	5			
	2098	Phillip Fuentes	Catv	5			
	2473	Anastasia Hardy	Corp Operations	4			
	2596	Thaddeus Lutz	Corp Operations	2			
	2245	Londyn Underwood	Engineers	5			
	2187	Amaris Kirk	Engineers	5			
	2984	Tayana Jeannite	Engineers	5			

25. Build a cohort analysis of employees grouped by hiring quarter.

```
SELECT * FROM cohort_analysis;
```

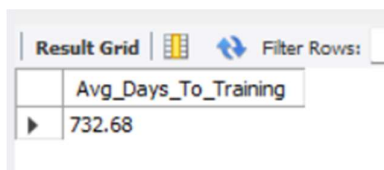


The screenshot shows a SQL query result grid with the title 'cohort\_analysis 167'. The grid has two columns: 'Hiring\_Cohort' and 'Employee\_Count'. The data is organized by hiring quarter from 2018-Q3 to 2021-Q4. The first row is highlighted with a blue arrow icon on the left.

	Hiring_Cohort	Employee_Count
▶	2018-Q3	98
	2018-Q4	157
	2019-Q1	153
	2019-Q2	148
	2019-Q3	136
	2019-Q4	161
	2020-Q1	143
	2020-Q2	139
	2020-Q3	157
	2020-Q4	153
	2021-Q1	157
	2021-Q2	140
	2021-Q3	160
	2021-Q4	143

26. Find the average time between an employee's start date and their first training program.

```
SELECT * FROM avg_days_training;
```

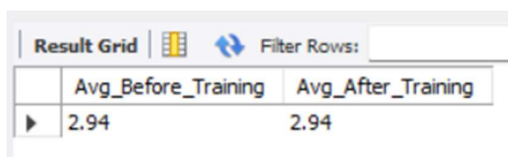


The screenshot shows a SQL query result grid with the title 'avg\_days\_training'. The grid has one column: 'Avg\_Days\_To\_Training'. The first row is highlighted with a blue arrow icon on the left.

	Avg_Days_To_Training
▶	732.68

27. Calculate the average engagement score before and after completing a training program.

```
SELECT * FROM avg_before_after_time;
```



The screenshot shows a SQL query result grid with the title 'avg\_before\_after\_time'. The grid has two columns: 'Avg\_Before\_Training' and 'Avg\_After\_Training'. The first row is highlighted with a blue arrow icon on the left.

	Avg_Before_Training	Avg_After_Training
▶	2.94	2.94