

# SQL Queries with Outputs

## 1. Top Reasons for Attrition

```
SELECT Reason_for_Leaving, COUNT(*) AS Attrition_Count
FROM finalized_dataset
WHERE Attrition_Status = 'Yes'
GROUP BY Reason_for_Leaving
ORDER BY Attrition_Count DESC;
```

Reason_for_Leaving	Attrition_Count
Work Environment	25
Burn Out	23
Financial Problem	21
Health Issues	20
Low Pay	18
Personal Issue	17

## 2. Monthly Attrition Trend

```
SELECT DATE_FORMAT(Leaving_Date, '%Y-%m') AS Month,
       COUNT(*) AS Attritions
FROM finalized_dataset
WHERE Attrition_Status = 'Yes'
GROUP BY Month
ORDER BY Month;
```

Month	Attritions
2001-06	1
2001-11	1
2002-02	2
2002-06	1
2002-07	1
2002-08	2
2002-10	1
2002-11	3
2003-01	1
2003-03	1
2003-05	1
2003-06	2
2003-11	2
2004-04	1
2004-06	1

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```
+-----+-----+
| 2004-07 |          1 |
+-----+-----+
| 2004-10 |          2 |
+-----+-----+
| 2005-04 |          2 |
+-----+-----+
| 2005-11 |          1 |
+-----+-----+
| 2005-12 |          1 |
+-----+-----+
```

### 3. Tenure Segmentation

```
SELECT CASE
    WHEN Tenure_at_Company < 1 THEN '0-1 Year'
    WHEN Tenure_at_Company BETWEEN 1 AND 3 THEN '1-3 Years'
    WHEN Tenure_at_Company BETWEEN 4 AND 6 THEN '4-6 Years'
    ELSE '7+ Years'
END AS Tenure_Band,
COUNT(*) AS Employee_Count
FROM finalized_dataset
GROUP BY Tenure_Band;
```

```
+-----+-----+
| Tenure_Band | Employee_Count |
+-----+-----+
| 0-1 Year    |          49    |
+-----+-----+
| 1-3 Years   |         115    |
+-----+-----+
| 4-6 Years   |          68    |
+-----+-----+
| 7+ Years    |         268    |
+-----+-----+
```

### 4. Absenteeism Trend by Department

```
SELECT Department, AVG(Absenteeism_Days) AS Avg_Absenteeism_Days
FROM finalized_dataset
GROUP BY Department
ORDER BY Avg_Absenteeism_Days DESC;
```

```
+-----+-----+
| Department | Avg_Absenteeism_Days |
+-----+-----+
| Management |         16.8977    |
+-----+-----+
| Sales       |         16.2195    |
+-----+-----+
| Technical   |         15.0532    |
+-----+-----+
| Support     |         14.6711    |
+-----+-----+
| Finance     |          14        |
+-----+-----+
| IT          |         13.9589    |
+-----+-----+
```

### 5. Training Attendance Rate by Department

```
SELECT Department,
    ROUND(AVG(Attended_Training_Hours * 100 / NULLIF(Total_Training_Hours, 0)), 2) AS
Avg_Attendance_Percentage
FROM finalized_dataset
```

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```
GROUP BY Department;
```

Department	Avg_Attendance_Percentage
Finance	51.96
IT	54.26
Management	51.51
Sales	44.91
Support	50.3
Technical	53.67

### 6. Gender Distribution by Department

```
SELECT Department, Gender, COUNT(*) AS Gender_Count
FROM finalized_dataset
GROUP BY Department, Gender
ORDER BY Department, Gender;
```

Department	Gender	Gender_Count
Finance	Female	48
Finance	Male	39
IT	Female	40
IT	Male	33
Management	Female	38
Management	Male	50
Sales	Female	40
Sales	Male	42
Support	Female	39
Support	Male	37
Technical	Female	47
Technical	Male	47

### 7. Attrition Rate by Job Role

```
SELECT Job_Role,
       ROUND(SUM(CASE WHEN Attrition_Status = 'Yes' THEN 1 ELSE 0 END) * 100 / COUNT(*), 2) AS Attrition_Rate
FROM finalized_dataset
GROUP BY Job_Role
ORDER BY Attrition_Rate DESC;
```

Job_Role	Attrition_Rate
Clerk	26.53

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Manager	25.29
Engineer	25.23
Analyst	23.76
Executive	23.3

### 8. Age Bucket Distribution

```
SELECT CASE
    WHEN Age < 25 THEN '<25'
    WHEN Age BETWEEN 25 AND 34 THEN '25-34'
    WHEN Age BETWEEN 35 AND 44 THEN '35-44'
    WHEN Age BETWEEN 45 AND 54 THEN '45-54'
    ELSE '55+'
END AS Age_Bucket,
COUNT(*) AS Employee_Count
FROM finalized_dataset
GROUP BY Age_Bucket
ORDER BY Age_Bucket;
```

Age_Bucket	Employee_Count
25-34	116
35-44	137
45-54	135
55+	62
<25	50

### 9. Hiring Trend Over Time

```
SELECT YEAR(Joining_Date) AS Year,
COUNT(*) AS Hires
FROM finalized_dataset
GROUP BY Year
ORDER BY Year;
```

Joining_Year	Hires
2000	29
2001	26
2002	22
2003	23
2004	16
2005	28
2006	22
2007	27
2008	27

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2009	32
2010	28
2011	31
2012	21
2013	22
2014	24
2015	24
2016	25
2017	28
2018	24
2019	21

### 10. Employees with High Absenteeism

```
SELECT Employee_ID, Employee_Name, Department, Absenteeism_Days
FROM finalized_dataset
WHERE Absenteeism_Days > 15
ORDER BY Absenteeism_Days DESC;
```

Employee_ID	Employee_Name	Department	Absenteeism_Days
320	Mario Stroman	Sales	30
384	Danny Nader	Sales	30
200	Mr. Ramon Sporer IV	Technical	30
203	Floyd Heller V	Technical	30
117	Tara Walsh	Finance	30
95	Hannah Lueilwitz	Technical	30
254	Carmen Robel-Sauer	Management	30
274	Ms. Ida Boehm	Technical	30
279	Todd Grady	Management	30
82	Ms. Alexandra Heathcote	Management	30
162	Carole Trantow MD	Technical	30
71	Gerardo Satterfield	Finance	30
335	Mrs. Robyn Jerde	IT	30
63	Sheryl Jacobson	IT	30
361	Randal Koss	Management	30
167	Olive Braun	Support	30

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386	Mr. Winston Zieme II	Management	30
469	Maxine Fritsch	Management	30
418	Karen Kozey	Technical	29
201	Wayne Torp	Support	29

### 11. High Performers at Risk of Burnout

```
SELECT Employee_ID, Employee_Name, Department, Job_Role, Performance_Rating, Burnout_Risk
FROM finalized_dataset
WHERE Performance_Rating >= 4 AND Burnout_Risk = 'High'
ORDER BY Performance_Rating DESC;
```

Employee_ID	Employee_Name	Department	Job_Role	Performance_Rating	Burnout_Risk
17	Roman Turner III	Technical	Executive	5	High
378	Dr. Jeanette Blanda	Sales	Analyst	5	High
446	Mr. Jonathan Huels	Sales	Analyst	5	High
80	Dr. Kenny Franey	Technical	Analyst	5	High
136	Cathy Raynor III	Support	Manager	5	High
175	Mack Franey	Management	Clerk	5	High
195	Nelson Kemmer	Management	Clerk	5	High
201	Wayne Torp	Support	Engineer	5	High
388	Edwin Stokes	Sales	Executive	5	High
52	Kathryn Lockman	Technical	Analyst	5	High
284	Gustavo Balistreri IV	Technical	Executive	5	High
382	Sheila Hand	Management	Executive	5	High
364	Melvin Braun	Support	Manager	5	High
440	Randy O'Kon III	Support	Executive	4	High
439	Tami Wiza-Wunsch	IT	Clerk	4	High
390	Lee O'Hara	Support	Analyst	4	High
247	Mr. Warren Strosin	Sales	Executive	4	High
332	Kim Barrows	Finance	Manager	4	High
208	Muriel Schneider	Technical	Clerk	4	High
185	Billie Johns	IT	Manager	4	High

### 12. Performance Rating Distribution by Department

```
SELECT Department, Performance_Rating, COUNT(*) AS Count
```

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```
FROM finalized_dataset
GROUP BY Department, Performance_Rating
ORDER BY Department, Performance_Rating;
```

Department	Performance_Rating	Count
Finance	1	20
Finance	2	17
Finance	3	18
Finance	4	17
Finance	5	15
IT	1	23
IT	2	18
IT	3	13
IT	4	11
IT	5	8
Management	1	17
Management	2	11
Management	3	20
Management	4	18
Management	5	22
Sales	1	17
Sales	2	13
Sales	3	21
Sales	4	17
Sales	5	14

### 13. Top 10 Most Engaged Employees

```
SELECT Employee_ID, Employee_Name, Department, Engagement_Score
FROM finalized_dataset
ORDER BY Engagement_Score DESC
LIMIT 10;
```

Employee_ID	Employee_Name	Department	Engagement_Score
307	Jim Dicki PhD	Technical	1
398	Gerald Glover	Management	1
160	Dr. Brent Feil	Support	0.99
129	Jacquelyn McKenzie	IT	0.99

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409	Byron Konopelski	Support	0.98
194	Charlie Blanda	Sales	0.98
352	Denise Hilpert	Sales	0.98
146	Ms. Jaime Marvin	Sales	0.98
142	Whitney Effertz	Finance	0.97
338	Mrs. Dawn Bogisich-Ernser	Management	0.97

### 14. Training Attendance vs Performance

```
SELECT Department,
       ROUND(AVG(Attended_Training_Hours), 2) AS Avg_Attended_Hours,
       ROUND(AVG(Performance_Rating), 2) AS Avg_Performance_Rating
FROM finalized_dataset
GROUP BY Department;
```

Department	Avg_Attended_Hours	Avg_Performance_Rating
Finance	23.82	2.89
IT	25.05	2.49
Management	24.1	3.19
Sales	21.71	2.98
Support	21.92	3.12
Technical	22.53	3.02

### 15. Employees Who Left Within One Year of Joining

```
SELECT Employee_ID, Employee_Name, DATEDIFF(Leaving_Date, Joining_Date) AS Days_Stayed
FROM finalized_dataset
WHERE Attrition_Status = 'Yes' AND DATEDIFF(Leaving_Date, Joining_Date) < 365
ORDER BY Days_Stayed;
```

Employee_ID	Employee_Name	Days_Stayed
104	Brett Powlowski	-151
76	Floyd Boehm	4
405	Clay Fisher	25
328	Mr. Noah Treutel	28
80	Dr. Kenny Franey	43
61	Eleanor Prohaska	48
42	Jeremy Kunde	64
88	Geraldine Schneider	68
197	Dr. Kenneth Hegmann	72



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396	Cathy Schuppe	77
243	Carlos Franecki	86
432	Garry Kuvalis	87
121	Randolph Hammes	87
379	Nicholas Wisozk	98
472	Leona Mertz	105
130	Nettie Schuppe	117
484	Loren Metz	140
301	Rudy Heaney	144
209	Dr. Claude Marquardt	161
186	Kenneth Kemmer	162