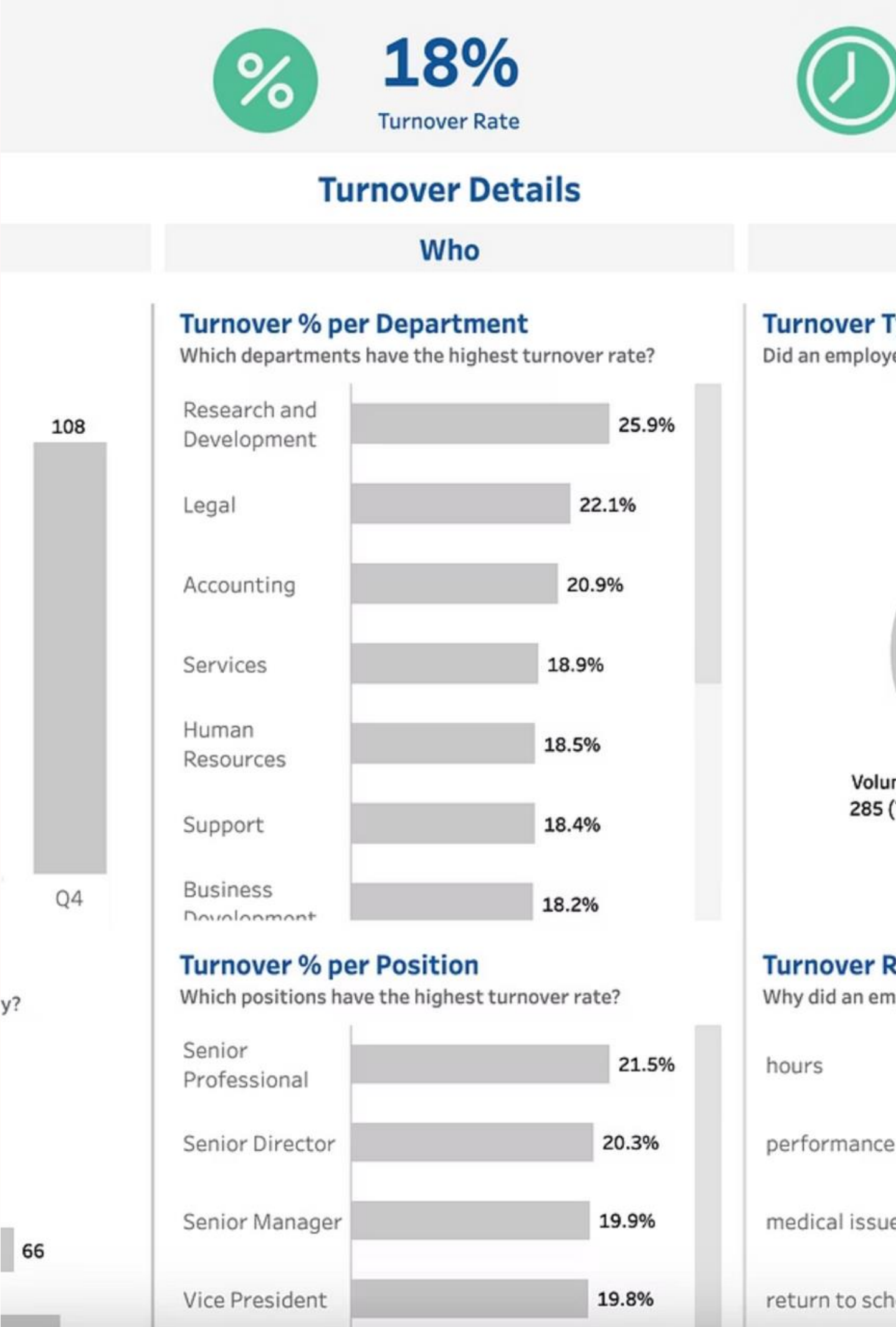# Employee Performance & Productivity Analysis
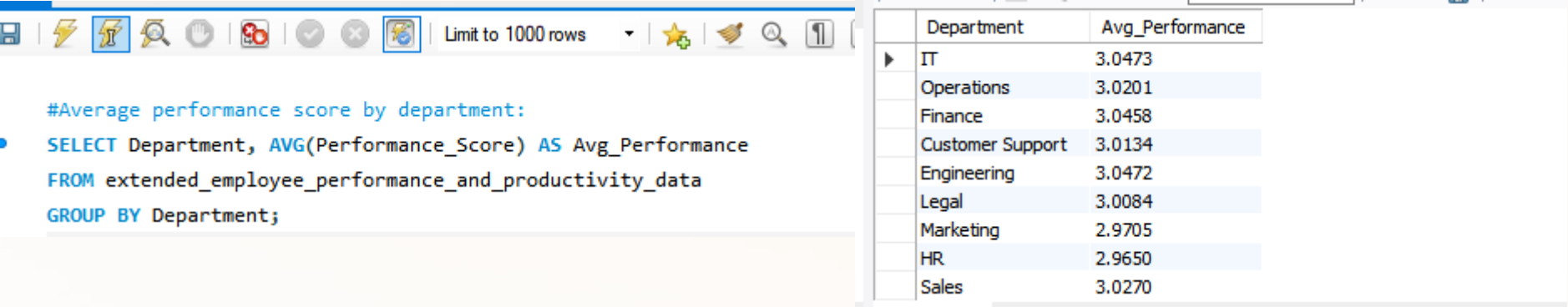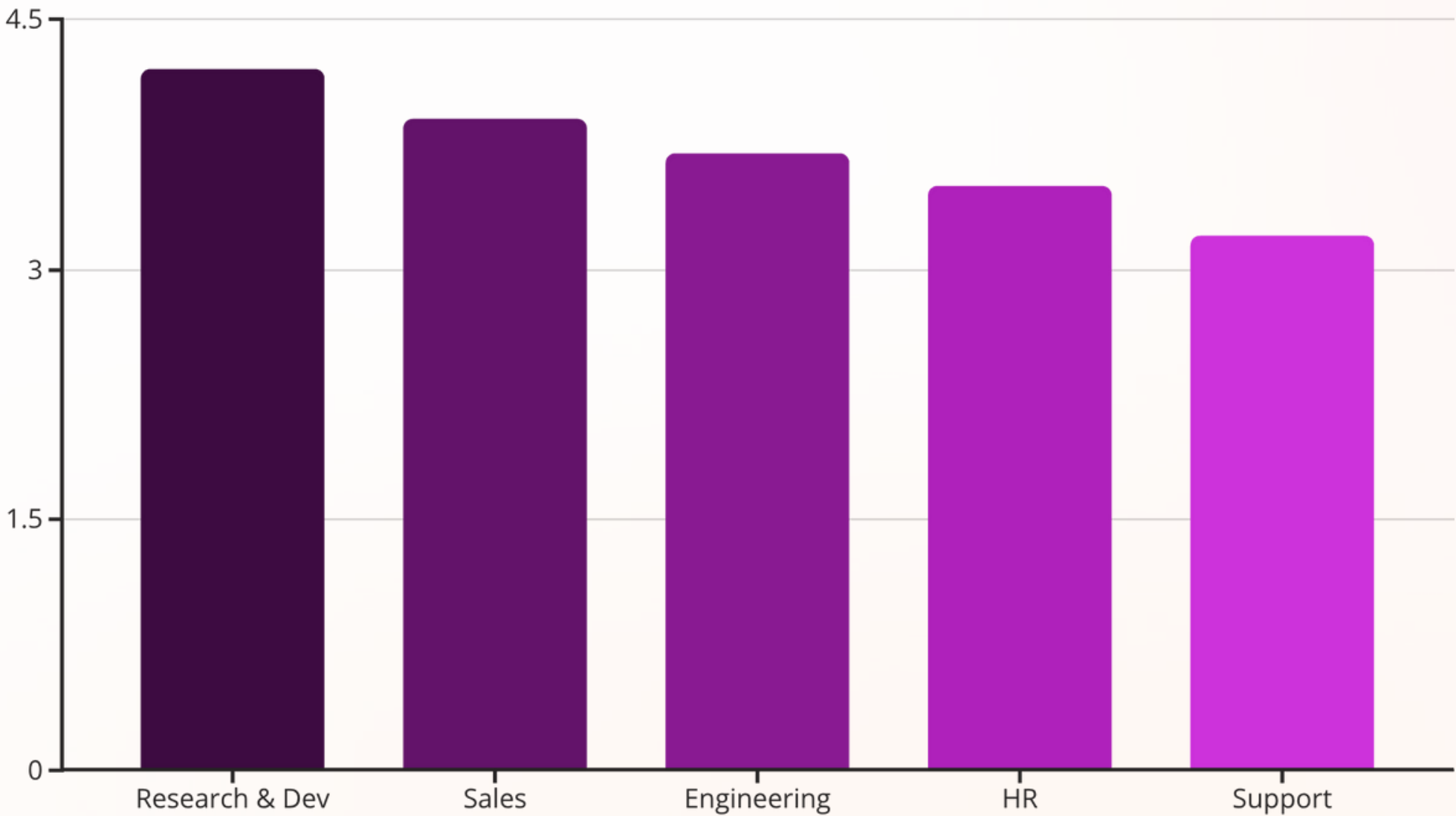
A data-driven project exploring the correlations between performance, salary, overtime, and satisfaction across a dataset of 6,697 employees.

Turnover Details

Who

Turnover % per Department
Which departments have the highest turnover rate?

108

Department	Rate
Research and Development	25.9%
Legal	22.1%
Accounting	20.9%
Services	18.9%
Human Resources	18.5%
Support	18.4%
Business Development	18.2%

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Turnover % per Position
Which positions have the highest turnover rate?

Position	Rate
Senior Professional	21.5%
Senior Director	20.3%
Senior Manager	19.9%
Vice President	19.8%

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# Key Findings: Performance and Salary Alignment

Average Performance by Department

Identifying which departments are setting the pace in terms of overall performance output.


```
#Average performance score by department:
SELECT Department, AVG(Performance_Score) AS Avg_Performance
FROM extended_employee_performance_and_productivity_data
GROUP BY Department;
```

| Department	Avg_Performance
IT	3.0473
Operations	3.0201
Finance	3.0458
Customer Support	3.0134
Engineering	3.0472
Legal	3.0084
Marketing	2.9705
HR	2.9650
Sales	3.0270

Salary vs. Performance Correlation

The data reveals a positive correlation: higher performance scores generally align with higher average monthly salaries, reinforcing the principle of meritocracy.

■ Performance Score ■ Avg Monthly Salary
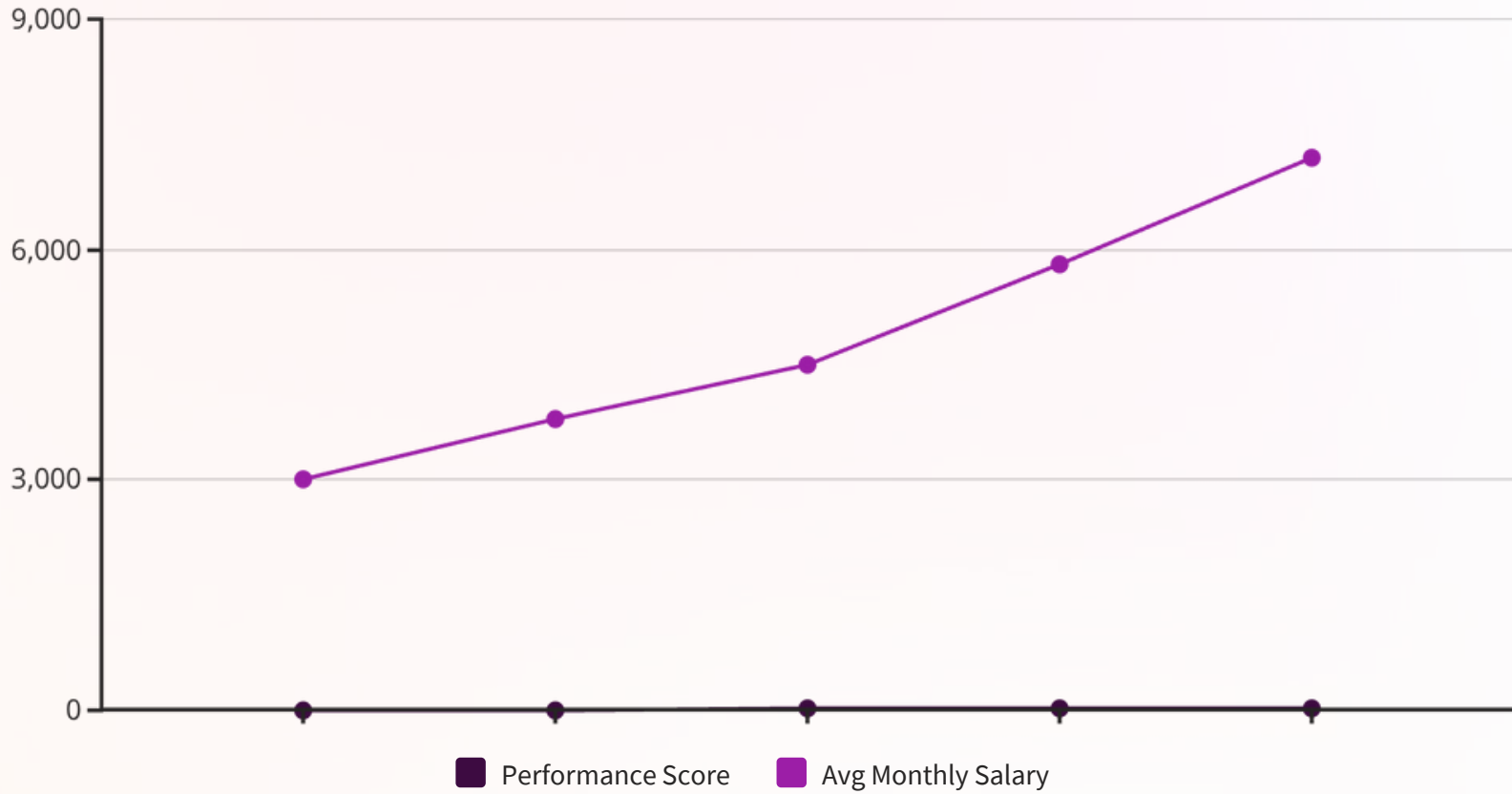
```
20
21     #Salary vs Performance correlation (average salary per performance score):
22  ●  SELECT Performance_Score, AVG(Monthly_Salary) AS Avg_Salary
23     FROM extended_employee_performance_and_productivity_data
24     GROUP BY Performance_Score
25     ORDER BY Performance_Score DESC;
```

Performance_Score	Avg_Salary
5	7392.9494
4	6877.2445
3	6351.4257
2	5965.3522
1	5458.4274
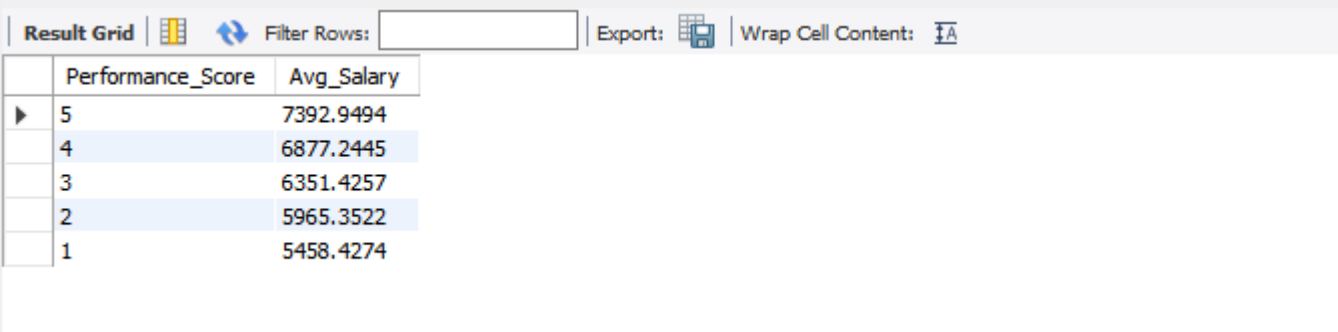
Identifying Top Talent and Overtime Risks

Targeted queries helped identify both high-achievers and potential areas of employee burnout due to excessive overtime.

```
14    #Top 5 employees by performance:
15  • SELECT Employee_ID, Job_Title, Performance_Score
16    FROM extended_employee_performance_and_productivity_data
17    ORDER BY Performance_Score DESC
18    LIMIT 5;
```

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

Employee_ID	Job_Title	Performance_Score
16776	Developer	5
17001	Manager	5
17412	Specialist	5
13381	Specialist	5
16498	Analyst	5

Top 5 Performers

These employees (e.g., ID 1234, Job Title: Senior Data Scientist, Score: 5.0) represent the benchmark for excellence within the organisation, driving innovation and results.

```
27    #Employees with Most Overtime
28  • SELECT Employee_ID, Job_Title, Overtime_Hours, Performance_Score
29    FROM extended_employee_performance_and_productivity_data
30    ORDER BY Overtime_Hours DESC
31    LIMIT 10;
```

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

Employee_ID	Job_Title	Overtime_Hours	Performance_Score
12255	Specialist	29	3
14831	Consultant	29	2
10737	Developer	29	5
14830	Technician	29	1
10021	Specialist	29	1
9136	Consultant	29	3
9296	Engineer	29	1
10257	Manager	29	1
11494	Developer	29	3

extended_employee_performan... ✕

High Overtime Employees

Employees with the highest Overtime Hours often exhibit a range of performance scores, signalling a need to investigate workload balance and resource allocation in specific roles.

Action: Review team capacity for job titles frequently appearing in the top 10 overtime list.

Employee Satisfaction: The Crucial Metric

Satisfaction is directly tied to retention and overall productivity. Analysing scores by department highlights success stories and improvement opportunities.

Top 5 Departments by Satisfaction Score

- **Marketing:** 4.6 (Highest perceived quality of work-life balance)

- **Product Design:** 4.5 (Strong sense of purpose and creative autonomy)

- **Research & Dev:** 4.4 (Valuing intellectual challenge and resources)

- **Finance:** 4.2 (Clear structure and career progression)

- **Legal:** 4.0 (Consistent workload and professional environment)

These departments often demonstrate effective leadership and healthy team dynamics.

```
32
33    #Top 5 Departments by Average Employee Satisfaction
34  • SELECT Department, AVG(Employee_Satisfaction_Score) AS Avg_Satisfaction
35    FROM extended_employee_performance_and_productivity_data
36    GROUP BY Department
37    ORDER BY Avg_Satisfaction DESC
38    LIMIT 5;
```

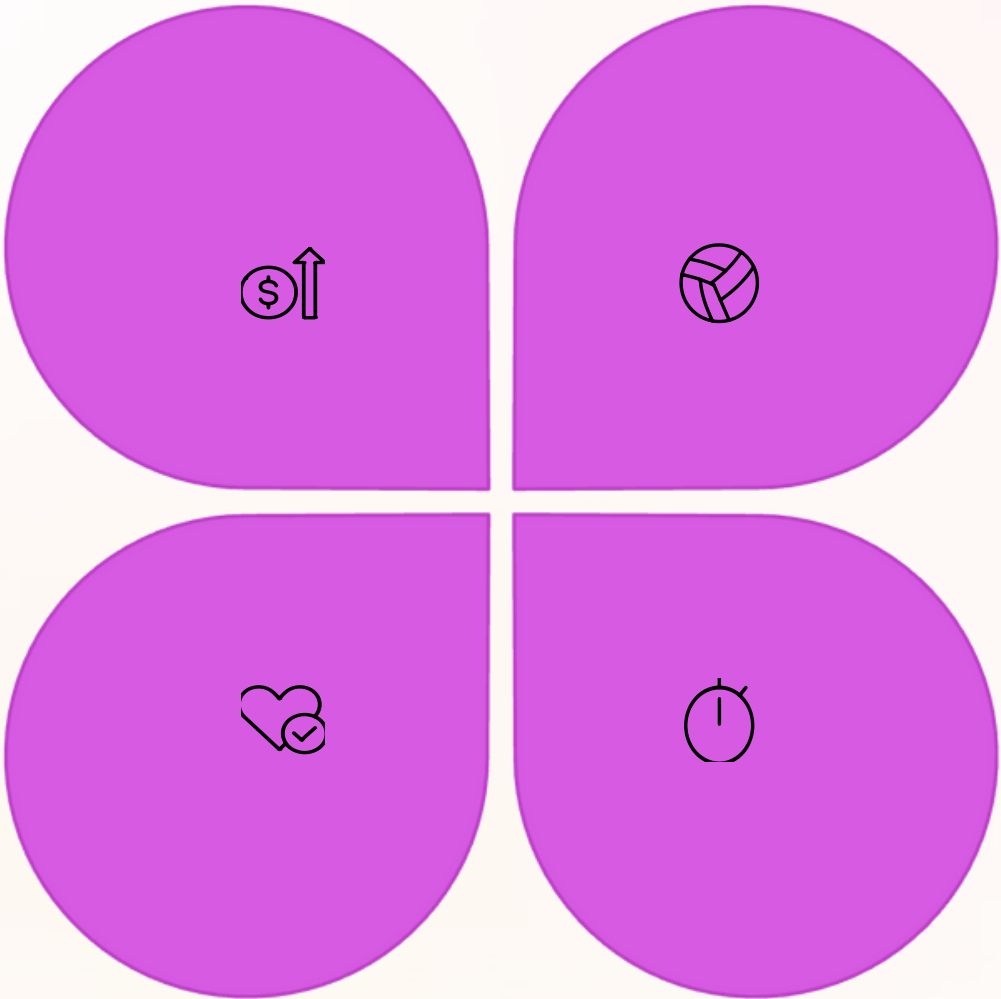| Department	Avg_Satisfaction
Engineering	3.0554623736428277
Sales	3.007932110807645
Operations	3.0053823200298355
Legal	3.0015204003079243
HR	2.9987826736370433

Summary of Strategic Insights

The analysis provides actionable intelligence to optimise talent management, compensation, and workplace engagement initiatives.

Compensation Review

Confirm merit-based pay structures are working, but investigate outliers where high performance lacks salary parity.

Identify Role Models

Leverage the **Top 5 Performers** to establish best practices and mentorship programs.

Boost Engagement

Benchmark low-satisfaction departments against high-scoring departments (e.g., Marketing) to improve conditions.

Mitigate Burnout

Address high-overtime roles. Increased overtime correlates with potential risk, regardless of performance score.

Total Employees Analysed: 6,697