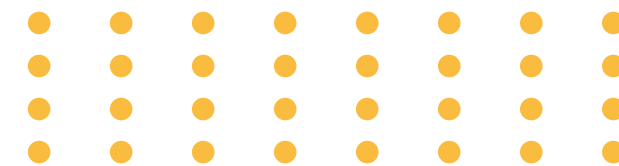




HR ATTRITION TRENDS & METRICS...

The Strategic Role of HR in
Organizational Growth



INTRODUCTION ● ● ●

- Effective HR management relies on timely and accurate insights into workforce data.
- This project transforms raw HR data into clear visualizations, enabling HR teams to monitor key metrics such as attrition, performance, and department staffing.
- The project supports data-driven decision-making to enhance employee retention, optimize resource allocation, and strengthen organizational performance.



WHY HR ATTRITION TRENDS & METRICS IS IMPORTANT



HR attrition impacts cost, productivity, and morale—hindering overall performance. Monitoring attrition helps identify root causes, improve retention, and support strategic workforce planning



KEY FEATURES



- **Employees Count, Attrition Count, Attrition Rate, Active Employees, Average Age**

```
SELECT
    COUNT(*) AS EmployeesCount,
    SUM(CASE WHEN Attrition = 1 THEN 1 ELSE 0 END) AS AttritionCount,
    ROUND(CAST(SUM(CASE WHEN Attrition = 1 THEN 1 ELSE 0 END) AS FLOAT)
        * 100.0 / COUNT(*), 2) AS AttritionRate,
    SUM(CASE WHEN Attrition = 0 THEN 1 ELSE 0 END) AS ActiveEmployees,
    ROUND(AVG(CAST(Age AS FLOAT)), 0) AS AvgAge
FROM HR_EmployeeAttrition;
```

	EmployeesCount	AttritionCount	AttritionRate	ActiveEmployees	AvgAge
1	1470	237	16.12	1233	37



Attrition by Gender ●

```
--Attrition by Gender
SELECT
    Gender,
    SUM(CASE WHEN Attrition = 1 THEN 1 ELSE 0 END) AS AttritionCount
FROM HR_EmployeeAttrition
GROUP BY Gender;
```

	Gender	AttritionCount
1	Male	150
2	Female	87



KEY FEATURES



● Monthly Income

```
--Employee Monthly Income
SELECT
    ROUND(AVG(CAST([MonthlyIncome] AS FLOAT)), 0) AS MonthlyIncome
FROM HR_EmployeeAttrition;
```

	MonthlyIncome
1	6503

● Working Years

```
SELECT
    ROUND(AVG(CAST([TotalWorkingYears] AS FLOAT)), 0) AS WorkingYear
FROM HR_EmployeeAttrition
WHERE Attrition = 1
GROUP BY Attrition;
```

	WorkingYear
1	8



● Work Overtime

```
SELECT
    COUNT(*) AS WorkOvertime
FROM HR_EmployeeAttrition
WHERE OverTime = 1
GROUP BY [OverTime];
```

	WorkOvertime
1	416

Department-wise attrition

--Department wise attrition

```
SELECT
    Department,
    COUNT(*) AS AttritionCount, ROUND(COUNT(*) * 100.0 / (SELECT COUNT(*)
        FROM HR_EmployeeAttrition
        WHERE Attrition = 1), 2) AS AttritionPercent
FROM HR_EmployeeAttrition
WHERE Attrition = 1
GROUP BY Department
ORDER BY AttritionPercent ASC;
```

	Department	AttritionCount	AttritionPercent
1	Human Resources	12	5.06000000000000
2	Sales	92	38.82000000000000
3	Research & Development	133	56.12000000000000

Education Field- wise attrition

```
--Education field wise attrition
SELECT
    EducationField,

    SUM(CASE WHEN Attrition = 1 THEN 1 ELSE 0 END) AS AttritionCount
FROM HR_EmployeeAttrition
GROUP BY EducationField
ORDER BY AttritionCount DESC;
```

	EducationField	AttritionCount
1	Life Sciences	89
2	Medical	63
3	Marketing	35
4	Technical Degree	32
5	Other	11
6	Human Resources	7

No.of Employees By Age Group

```
--number of employee by age group
SELECT
  CASE
    WHEN Age < 25 THEN 'Under 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 AgeGroup,
  COUNT(*) AS EmployeeCount
FROM HR_EmployeeAttrition
GROUP BY
  CASE
    WHEN Age < 25 THEN 'Under 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
ORDER BY AgeGroup;
```

	AgeGroup	EmployeeCount
1	25-34	554
2	35-44	505
3	45-54	245
4	55+	69
5	Under 25	97

Relationship between Age & Job Satisfaction

```
--relationship between employee age and job statisfiction
SELECT
  CASE
    WHEN Age < 25 THEN 'Under 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 AgeGroup,
  SUM(JobSatisfaction) AS TotalJobSatisfaction,
  COUNT(*) AS EmployeeCount
FROM HR_EmployeeAttrition
GROUP BY
  CASE
    WHEN Age < 25 THEN 'Under 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
ORDER BY AgeGroup;
```

	AgeGroup	TotalJobSatisfaction	EmployeeCount
1	25-34	1514	554
2	35-44	1386	505
3	45-54	661	245
4	55+	184	69
5	Under 25	266	97

Attrition Rate by- Gender for Different Age Groups

```
--Attrition rate by gender for different age
SELECT
  Gender,
  CASE
    WHEN Age < 25 THEN 'Under 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 AgeGroup,

  SUM(CASE WHEN Attrition = 1 THEN 1 ELSE 0 END) AS AttritionCount

FROM HR_EmployeeAttrition
GROUP BY
  Gender,
  CASE
    WHEN Age < 25 THEN 'Under 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
ORDER BY AgeGroup, Gender;
```

	Gender	AgeGroup	AttritionCount
1	Female	25-34	43
2	Male	25-34	69
3	Female	35-44	14
4	Male	35-44	37
5	Female	45-54	9
6	Male	45-54	16
7	Female	55+	3
8	Male	55+	8
9	Female	Under 25	18
10	Male	Under 25	20

Job Satisfaction Rating

```
--The Job Satisfaction Rating
SELECT
    JobRole,
    SUM(CASE WHEN JobSatisfaction = 1 THEN 1 ELSE 0 END) AS Rating_1,
    SUM(CASE WHEN JobSatisfaction = 2 THEN 1 ELSE 0 END) AS Rating_2,
    SUM(CASE WHEN JobSatisfaction = 3 THEN 1 ELSE 0 END) AS Rating_3,
    SUM(CASE WHEN JobSatisfaction = 4 THEN 1 ELSE 0 END) AS Rating_4,
    COUNT(*) AS TotalEmployees
FROM HR_EmployeeAttrition
GROUP BY JobRole
ORDER BY TotalEmployees ASC;
```

	JobRole	Rating_1	Rating_2	Rating_3	Rating_4	TotalEmployees
1	Human Resources	10	16	13	13	52
2	Research Director	15	16	27	22	80
3	Sales Represent...	12	21	27	23	83
4	Manager	21	21	27	33	102
5	Healthcare Repr...	26	19	43	43	131
6	Manufacturing Di...	26	32	49	38	145
7	Laboratory Techn...	56	48	75	80	259
8	Research Scientist	54	53	90	95	292
9	Sales Executive	69	54	91	112	326

LEARNING OUTCOMES

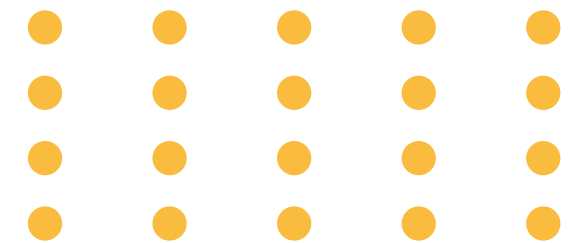
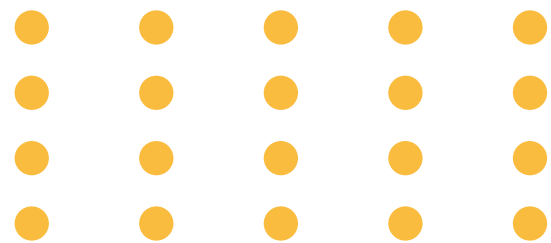


The learning outcomes of an HR Attrition Program is that the, With a workforce of 1,470, It reveals a 16.12% attrition rate and an average employee age of 37. Sales sees the most attrition, while employees aged 30–36 dominate the workforce. Sales Executives and younger employees report the highest job satisfaction, and Life Sciences is the most affected education field. A total of 416 employees are putting in overtime.



● CONCLUSION ●

In conclusion, an HR provides a comprehensive view of workforce metrics including total employees (1,470), attrition rate (16.12%), average age (37), and key insights like high attrition in Sales, peak employee age group (30–36), and job satisfaction being highest among Sales Executives and younger employees. Education fields like Life Sciences face the most attrition, and 416 employees are working overtime.



THANK YOU ...

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