HR Data Analysis

KPI

Total Employee

SELECT sum(employee_count) AS TOTAL_Employee FROM hrdata

Attrition

Select COUNT(attrition) AS Attrition from hrdata

Where attrition='Yes'

Active Employee

Select Sum(active_employee) AS Active_Employee from hrdata

Attrition Rate

```
SELECT  SUM(employee_count) AS Total_Employee,
 SUM(active_employee) AS Active_Employee,
 CONCAT(
   ROUND(
    (SUM(employee_count) - SUM(active_employee)) * 100.0
/ SUM(employee_count),
     2
   ),
   '%'
 ) AS Attrition_Rate
FROM hrdata;
```

attrition_rate text
16.12%

Average Age

```
SELECT ROUND(AVG(age),2)  AS Average_Age from hrdata
```

average_age numeric
36.92

chart

Attrition by gender

```
SELECT gender,COUNT(attrition) from hrdata
WHERE attrition='Yes' and education='High School'
GROUP BY gender
order by Count(attrition) DESC
```

Department wise Attrition

```
SELECT department,COUNT(attrition),
ROUND((CAST(COUNT(attrition) as numeric)
/(SELECT COUNT(attrition) from hrdata where attrition='Yes'))*100,2)
AS PCT from hrdata
WHERE attrition='Yes' and gender='Female'
GROUP BY department
order by Count(attrition) DESC
```

department character varying (50)	count bigint	pct numeric
R&D	43	18.14
Sales	38	16.03
HR	6	2.53

No of Employee by Age group

```
SELECT age,sum(employee_count) from hrdata
WHERE department='R&D'
group by age order by age
```

age integer	sum bigint
18	5
19	5
20	6
21	7
22	16
23	11
24	17
25	11
26	26
27	33
28	34
29	46
30	37
31	40
32	39
33	35
34	47
35	52
36	44

37	36
38	37
39	30
40	39
41	21
42	35
43	23
44	25
45	27
46	15
47	12
48	13
49	20
50	19
51	13
52	13
53	11
54	14

54	14
55	16
56	11
57	3
58	11
59	4
60	2

Education wise attrition

SELECT education_field,COUNT(employee_count) from hrdata

WHERE attrition='Yes'and department='Sales'

group by education_field

order by COUNT(attrition) desc

education_field character varying (50)	count bigint
Marketing	35
Life Sciences	29
Medical	14
Technical Degree	10
Other	4

Attrition Rate by gender for different Age group

SELECT age_band,gender, COUNT(attrition),

ROUND((CAST(COUNT(attrition) as numeric)/(SELECT COUNT(attrition)from hrdata where attrition='Yes'))*100,2)

```
from hrdata
WHERE attrition='Yes'
group by age_band,gender
order by age_band ,gender
```

age_band character varying (50)	gender character varying (50)	count bigint	round numeric
25 - 34	Female	43	18.14
25 - 34	Male	69	29.11
35 - 44	Female	14	5.91
35 - 44	Male	37	15.61
45 - 54	Female	9	3.80
45 - 54	Male	16	6.75
Over 55	Female	3	1.27
Over 55	Male	8	3.38
Under 25	Female	18	7.59
Under 25	Male	20	8.44

Job Satisfaction Rate

```
CREATE EXTENSION IF NOT EXISTS tablefunc;


SELECT *
FROM crosstab(
  $$SELECT
      job_role,
      job_satisfaction,
```

```
    SUM(employee_count)::numeric
   FROM hrdata
   GROUP BY job_role, job_satisfaction
   ORDER BY job_role, job_satisfaction$$
) AS ct(
 job_role varchar(50),
 satisfaction_1 numeric,
 satisfaction_2 numeric,
 satisfaction_3 numeric,
 satisfaction_4 numeric
)
ORDER BY job_role;
```

job_role character varying (50)	satisfaction_1 numeric	satisfaction_2 numeric	satisfaction_3 numeric	satisfaction_4 numeric
Healthcare Representative	26	19	43	43
Human Resources	10	16	13	13
Laboratory Technician	56	48	75	80
Manager	21	21	27	33
Manufacturing Director	26	32	49	38
Research Director	15	16	27	22
Research Scientist	54	53	90	95
Sales Executive	69	54	91	112
Sales Representative	12	21	27	23

```
SELECT age_band, gender, sum(employee_count) from hrdata
group by age_band,gender
order by age_band,gender
```

age_band character varying (50)	gender character varying (50)	sum bigint
25 - 34	Female	217
25 - 34	Male	337
35 - 44	Female	196
35 - 44	Male	309
45 - 54	Female	113
45 - 54	Male	132
Over 55	Female	25
Over 55	Male	44
Under 25	Female	37
Under 25	Male	60