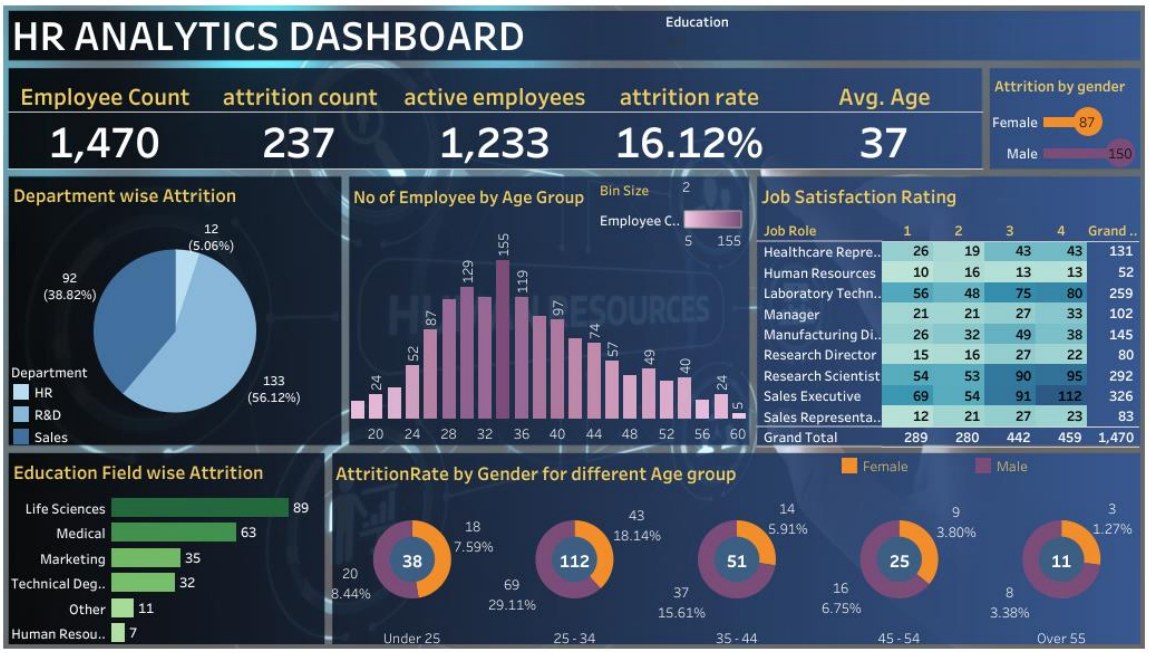
DATA VALIDATION



Purpose:

For assessing and ensuring the quality, accuracy, and reliability of data of this Tableau Dashboard

Tools:

PG Admin will be used in this data validation.

Description:

The figure in the dashboard will be compared with number that is run in the SQL queries.

1. KPI- Employee Count - PASSED

select sum(employee_count) from hrdata

2. KPI- Attrition Count - PASSED

SELECT count(attrition) FROM hrdata WHERE attrition = 'Yes'

	count bigint
1	237

3. KPI- Attrition Rate - PASSED

SELECT round(((SELECT count(attrition) FROM hrdata

WHERE attrition_label = 'Yes') /

SUM(employee_count))*100,2) from hrdata

	round numeric
1	16.12

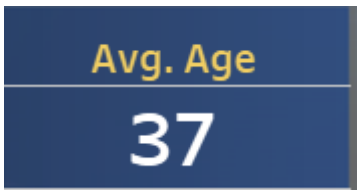
4. KPI- Active Employee - PASSED

SELECT (SUM(employee_count) - (SELECT COUNT(attrition_label) from hrdata WHERE attrition_label ='Yes'))AS active_employee

FROM hrdata

	active_employee numeric
1	1233

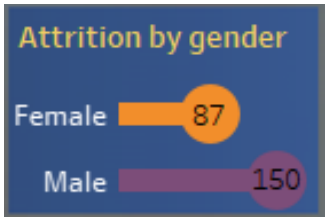
5. KPI- Average Age - PASSED



SELECT round(avg(age),0) as avg_age from hrdata

	ave_age numeric
1	37

6. Attrition by Gender - PASSED



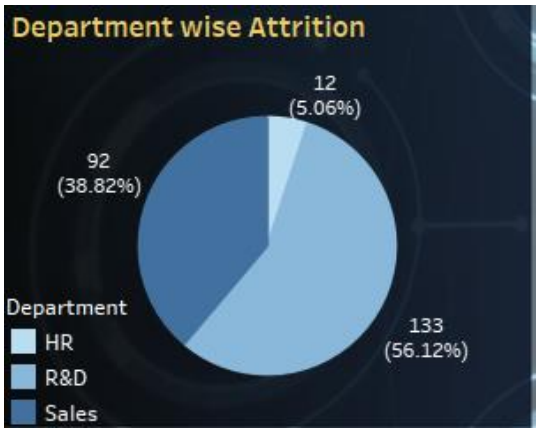
SELECT gender, count(attrition_label) from hrdata

WHERE attrition_label = 'Yes'

group by gender

	gender character varying (50)	count bigint
1	Male	150
2	Female	87

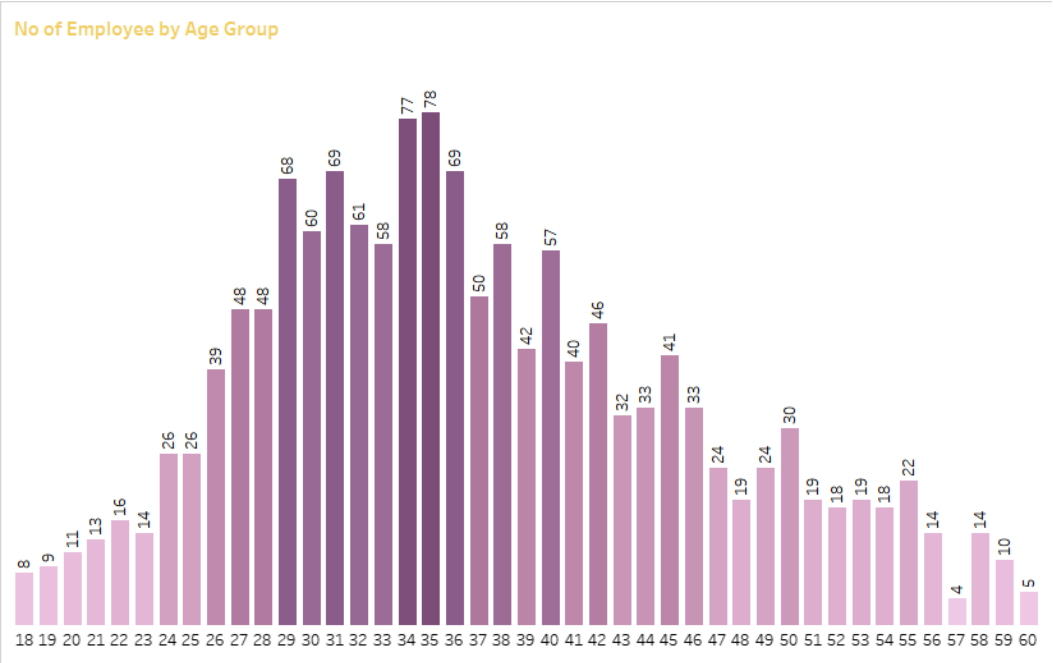
7. Department wise Attrition - PASSED




```
SELECT department, COUNT(attrition_label) AS total_attrition,

ROUND((CAST(COUNT(attrition_label) AS numeric)/

        (SELECT COUNT(attrition_label) FROM hrdata WHERE attrition_label = 'Yes' AND gender =
'Female')) * 100,2) AS attrition_percentage

FROM hrdata

WHERE attrition_label = 'Yes' AND gender = 'Female'

GROUP BY department

ORDER BY COUNT(attrition_label) DESC
```

	department character varying (50)	total_attrition bigint	attrition_percentage numeric
1	R&D	133	56.12
2	Sales	92	38.82
3	HR	12	5.06

8. No of Employee by Age Group - PASSED



SELECT age,

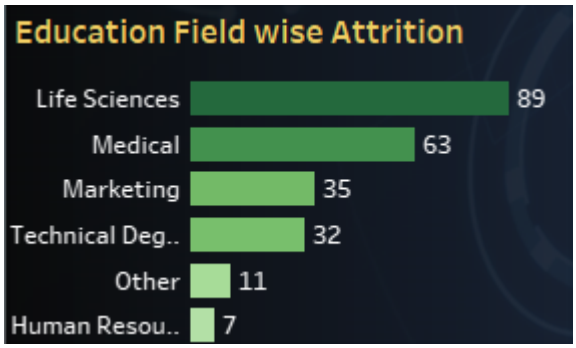
SUM(employee_count) FROM hrdata

GROUP BY age

ORDER BY age

	age bigint	sum numeric
1	18	8
2	19	9
3	20	11
4	21	13
5	22	16
6	23	14
7	24	26
8	25	26
9	26	39
10	27	48
11	28	48
12	29	68
13	30	60

9. Education Field wise Attrition - PASSED



SELECT education_field,

COUNT(attrition_label)

FROM hrdata

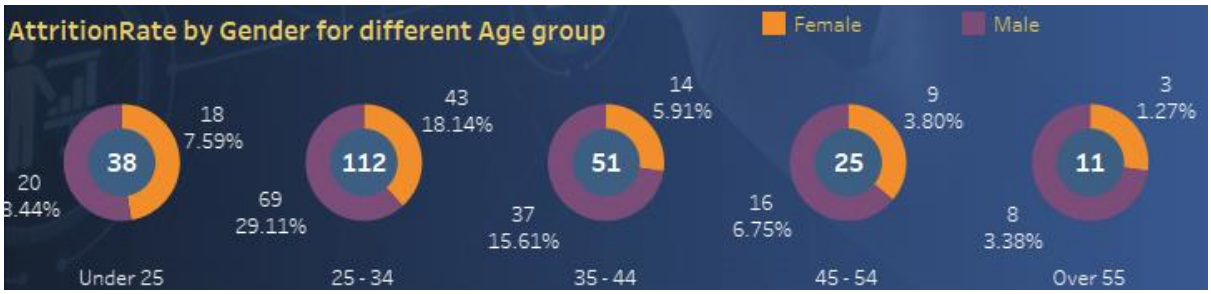
WHERE attrition_label = 'Yes'

GROUP BY education_field

ORDER BY COUNT(attrition_label) DESC

	education_field character varying (50)	count bigint
1	Life Sciences	89
2	Medical	63
3	Marketing	35
4	Technical Degree	32
5	Other	11
6	Human Resources	7

10. Attrition Rate by Gender for different Age group - PASSED



SELECT age_band, gender,

COUNT(attrition_label),

ROUND((CAST(COUNT(attrition_label)AS numeric)/

(SELECT COUNT(attrition_label) FROM hrdata WHERE attrition_label = 'Yes'))*100,2) AS Percentage

FROM hrdata

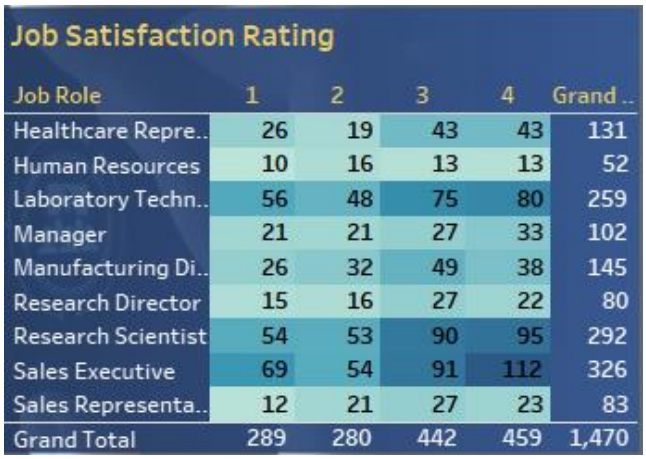
WHERE attrition_label = 'Yes'

GROUP BY age_band , gender

ORDER BY age_band , gender

	age_band character varying (50)	gender character varying (50)	count bigint	percentage numeric
1	25 - 34	Female	43	18.14
2	25 - 34	Male	69	29.11
3	35 - 44	Female	14	5.91
4	35 - 44	Male	37	15.61
5	45 - 54	Female	9	3.80
6	45 - 54	Male	16	6.75
7	Over 55	Female	3	1.27
8	Over 55	Male	8	3.38
9	Under 25	Female	18	7.59
10	Under 25	Male	20	8.44

11. Job Satisfaction Rating - PASSED



Job Satisfaction Rating

Job Role	1	2	3	4	Grand ..
Healthcare Repre..	26	19	43	43	131
Human Resources	10	16	13	13	52
Laboratory Techn..	56	48	75	80	259
Manager	21	21	27	33	102
Manufacturing Di..	26	32	49	38	145
Research Director	15	16	27	22	80
Research Scientist	54	53	90	95	292
Sales Executive	69	54	91	112	326
Sales Representa..	12	21	27	23	83
Grand Total	289	280	442	459	1,470

```
SELECT *

FROM crosstab(

        'SELECT job_role, job_satisfaction, sum(employee_count)

        FROM hrdata

        GROUP BY job_role, job_satisfaction

        ORDER BY job_role, job_satisfaction'

        )AS ct(job_role varchar(50), one numeric,two numeric, three numeric, four numeric)

ORDER BY job_role;
```

	job_role character varying (50)	one numeric	two numeric	three numeric	four numeric
1	Healthcare Representative	26	19	43	43
2	Human Resources	10	16	13	13
3	Laboratory Technician	56	48	75	80
4	Manager	21	21	27	33
5	Manufacturing Director	26	32	49	38
6	Research Director	15	16	27	22
7	Research Scientist	54	53	90	95
8	Sales Executive	69	54	91	112
9	Sales Representative	12	21	27	23