#### **SQL PORTFOLIO PROJECT**

## TABLEAU/ POWER BI REPORTS IN SQL

## Create Table:

```
create table hrdata
       emp_no int8 PRIMARY KEY,
       gender varchar(50) NOT NULL,
       marital_status varchar(50),
       age_band varchar(50),
       age int8,
       department varchar(50),
       education varchar(50),
       education_field varchar(50),
       job_role varchar(50),
       business_travel varchar(50),
       employee_count int8,
       attrition varchar(50),
       attrition_label varchar(50),
       job_satisfaction int8,
       active_employee int8
)
```

#### Import Data in Table Using Query:

COPY hrdata FROM 'C:\Users\rc\Desktop\Projects\Complete Project\SQL' DELIMITER ',' CSV HEADER;

## **Employee Count:**

select sum(employee\_count) as Employee\_Count from hrdata;

	employee_count numeric
1	1470

# **Attrition Count:**

select count(attrition) from hrdata where attrition='Yes';



#### **Attrition Rate:**

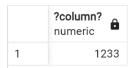
select

round (((select count(attrition) from hrdata where attrition='Yes')/sum(employee\_count)) \* 100,2) from hrdata;



#### Active Employees:

select sum(employee\_count) - (select count(attrition) from hrdata where attrition='Yes') from hrdata;



#### Average Age:

select round(avg(age),0) from hrdata;



## **Attrition by Gender:**

select gender, count(attrition) as attrition\_count from hrdata where attrition='Yes'

group by gender

order by count(attrition) desc;

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

# **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' group by department order by count(attrition) desc;

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

## No of Employees by Age Group:

select age, sum(employee\_count) as employee\_count from hrdata group by age

order by age;

	age bigint	employee_count 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

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#### **Education Field Wise Attrition:**

select education\_field, count(attrition) as attrition\_count from hrdata

where attrition='Yes'

group by education\_field

order by count(attrition) desc;

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

## Attrition Rate by Gender for Different Age Groups:

select age\_band, gender, count(attrition) as attrition,

round((cast(count(attrition) as numeric) / (select count(attrition) from hrdata where attrition =

'Yes')) \* 100,2) as pct

from hrdata

where attrition = 'Yes'

group by age\_band, gender

order by age\_band, gender desc;

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

## **Job Satisfaction Rating:**

- - Activating the cosstab() function

CREATE EXTENSION IF NOT EXISTS tablefunc;

- - Then

```
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