DATA ANALYST PORTFOLIO SQL PROJECT FOR BEGINNERS

TESTING 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 'D:\hrdata.csv' DELIMITER ',' CSV HEADER;
```

Employee Count:

```
select sum(employee_count) as Employee_Count from hrdata;
```

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 Employee:

```
select sum(employee_count) - (select count(attrition) from hrdata  where
attrition='Yes') from hrdata;
```

OR

```
select (select sum(employee_count) from hrdata) - count(attrition) as
active_employee from hrdata

where attrition='Yes';
```

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;
```

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;
```

No of Employee by Age Group

```
SELECT age,  sum(employee_count) AS employee_count FROM hrdata

GROUP BY age

order by age;
```

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;
```

Attrition Rate by Gender for different Age Group

```
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;
```

Job Satisfaction Rating

-Run this query first to activate the cosstab() function in postgres

```
CREATE EXTENSION IF NOT EXISTS tablefunc;
```

-Then run this to get o/p-

```
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;
```