

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 crosstab() 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;
```