**TESTING REPORT IN SQL**

**-----\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*----Creating 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**

**)**

**----\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*----Importing Data------\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**COPY hrdata from 'C:\Users\lenovo\Downloads\hrdata.csv' DELIMITER ',' CSV HEADER;**

**----\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*----- Employee Count-------\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Select sum(employee\_count) from hrdata**

**----\*\*\* With Filter**

**--\* Education**

**select sum(employee\_count) from hrdata**

**where education = 'High School'**

**---\* Department Filter**

**select sum(employee\_count) from hrdata**

**where department = ‘R&D’**

**---\* Education field**

**Select sum(employee\_count) as employee\_count from hrdata**

**where education\_field = ‘Medical’**

**--\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*----- Attrition count----- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Select count(attrition) from hrdata**

**where attrition = 'Yes'**

**--\* With filter**

**Select count(attrition) from hrdata**

**where attrition = 'Yes' and education = 'Doctoral Degree'**

**---\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*-----Attrition Rate-----\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**--\*\* Without filter**

**Select round(((select count(attrition) from hrdata where attrition = 'Yes')/sum(employee\_count))\*100,0)as Attrition\_Rate from hrdata**

**--\*\* With filter**

**Select round(((select count(attrition) from hrdata where attrition = 'Yes' and department = 'Sales')/sum(employee\_count))\*100,0)as Attrition\_Rate from hrdata**

**where department = 'Sales'**

**----\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*-----Active Employees------\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Select sum(employee\_count)-(select count(attrition) from hrdata where attrition = 'Yes') as Active\_Employees from hrdata**

**---\* With Filter**

**Select sum(employee\_count)-(select count(attrition) from hrdata where attrition = 'Yes'and gender = 'Male') as Active\_Employees from hrdata**

**where gender = 'Male'**

**----\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*-----Average Age -------\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Select round(avg(age),0) as Average\_age from hrdata**

**--\*\* With Filter**

**Select round(avg(age),0) as Average\_age from hrdata**

**where gender = 'Female'**

**--\*\*\*\*\*\*\*\*\*\*\*\*\*\*------------ Attrition By Gender —-----\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**Select gender,count(attrition ) from hrdata where attrition = 'Yes'**

**group by gender**

**order by count(attrition) DESC**

**---\*\* With filter**

**--\* Education**

**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)as Attrition\_count,**

**round((cast(count(attrition)as numeric) /(select count(attrition) from hrdata where attrition = 'Yes') )\*100,2)as Attrition\_Percentage\_Department\_Wise**

**from hrdata**

**where attrition = 'Yes'**

**group by department**

**order by count(attrition)**

**----\* With Filter**

**--\*Gender**

**select department,count(attrition)as Attrition\_count,**

**round((cast(count(attrition)as numeric) /(select count(attrition) from hrdata where attrition = 'Yes' and Gender = 'Female') )\*100,2)as Attrition\_Percentage\_Department\_Wise**

**from hrdata**

**where attrition = 'Yes' and gender = 'Female'**

**group by department**

**order by count(attrition) desc**

**---\*\*\*\*\*\*\*\*\*\*\*\*\*------- No.of Employees by Age Group —-------\*\*\*\*\*\*\*\*\*\*\*\*\***

**select age,sum(employee\_count) from hrdata**

**group by age**

**order by age**

**---\*\* With filter**

**--\* department**

**select age,sum(employee\_count) from hrdata**

**where department = 'R&D'**

**group by age**

**order by age**

**-------\*\*\*\*\*\*\*\*\*\*\*-------Education Wise Attrition—------- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**select education\_field, count(attrition) from hrdata**

**where attrition = 'Yes'**

**group by education\_field**

**order by count(attrition) desc**

**--\*\* With Filter**

**--\*department**

**select education\_field, count(attrition) from hrdata**

**where attrition = 'Yes' and department = 'Sales'**

**group by education\_field**

**order by count(attrition) desc**

**----\*\*\*\*-----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) as percentage\_attrition\_**

**from hrdata**

**where attrition = 'Yes'**

**group by age\_band,gender**

**order by count(attrition) desc**

**----\*\*\*\*\*\*\*\*\*\*\*\*\*----------JOB Satisfaction Rating—------------\*\*\*\*\*\*\*\*\*\*\***

**CREATE EXTENSION IF NOT EXISTS tablefunc;**

**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**