create database hrdb

use hrdb

select \* from tblhr

--1.Employee Overview:

--• How many employees are there in total?

select count(empId) from tblhr

--• What is the distribution of employees by gender?

select count(empid) as women\_emp from tblhr where Sex='F'

select count(empid) as men\_emp from tblhr where Sex='M'

--• What is the distribution of employees by marital status?

select count(empid) as unmarried from tblhr where MaritalDesc='Single'

select count(empid) as married from tblhr where MaritalDesc='Married'

--• How many employees have terminated vs. are still employed?

select count(empid) as still\_employeed from tblhr where Termd=0

select count(empid) as terminatd from tblhr where Termd=1;

select \* from tblhr

--2.Salary Analysis:

--• What is the average, minimum, and maximum salary?

select avg(Salary) as Average\_salary from tblhr

select max(Salary) as Maximum\_salary from tblhr

select min(Salary) as Minimum\_salary from tblhr

--• Can you visualize the salary distribution using a histogram?

select floor(salary/10000)\*10000 as salary\_range, count(\*) as Numberofemployee from tblhr group by floor(salary/10000) order by salary\_range

--3. Department Insights:

--• How many departments are there?

select count(distinct deptid) as total\_department from tblhr

--• What is the employee distribution across different departments?

select distinct Department as dep, count(empid) from tblhr group by Department

--• Which department has the highest average salary?

select distinct Department as dep, avg(Salary) from tblhr group by Department order by avg(salary) desc

--4. Performance Analysis:

--• What is the distribution of performance scores among employees?

select Employee\_Name, PerfScoreID from tblhr

--• Is there any correlation between performance score and employee satisfaction?

select EmpID, PerformanceScore, EmpSatisfaction from tblhr

--• How does performance score vary across different departments?

select distinct PerformanceScore as dep, count(empid) as number\_of\_emp from tblhr group by PerformanceScore

--5. Termination Analysis:

--• What are the main reasons for termination?

select distinct TermReason from tblhr

--• Is there a pattern in termination based on department or position?

select Department, count(DateofTermination) from tblhr where DateofTermination is not null group by Department

select Position, count(DateofTermination) from tblhr where DateofTermination is not null group by Position

--• How does the engagement survey score correlate with termination reasons?

select EmpID, TermReason, EngagementSurvey from tblhr where TermReason != ('N/A-StillEmployed')

--6. Recruitment Sources:

--• Which recruitment source is most effective in hiring employees?

select distinct RecruitmentSource, count(RecruitmentSource) from tblhr group by RecruitmentSource order by count(RecruitmentSource) desc

--• Is there a correlation between recruitment source and performance score?

select EmpID ,RecruitmentSource, PerformanceScore from tblhr

--• How has the distribution of recruitment sources changed over time?

select year(dateofhire), RecruitmentSource, count(\*) as Total\_count from tblhr group by RecruitmentSource, year(dateofhire) order by year(dateofhire), count(\*) desc

--7. Time Analysis:

--• What is the average tenure of employees?

SELECT

AVG(DATEDIFF(DAY, DateofHire, DateofTermination)) AS average\_tenure FROM tblhr WHERE

DateofHire IS NOT NULL

AND DateofTermination IS NOT NULL; -- Exclude employees without termination dates

--• Is there a correlation between tenure and performance score?

SELECT

DATEDIFF(day,DateofTermination, DateofHire) AS tenure,

AVG(PerfScoreID) AS avg\_performance\_score

FROM

tblhr

WHERE

DateofTermination IS NOT NULL

AND DateofHire IS NOT NULL

GROUP BY

DATEDIFF(day,DateofTermination, DateofHire)

ORDER BY

DATEDIFF(day,DateofTermination, DateofHire);

--• How has the number of absences changed over time?

select year(dateofhire), Absences, count(\*) as Total\_count from tblhr group by Absences, year(dateofhire) order by year(dateofhire), count(\*) desc

--8.Managerial Analysis:

--• Which manager has the highest number of employees?

SELECT top 1 ManagerName, COUNT(\*) AS employee\_count FROM tblhr GROUP BY ManagerName ORDER BY employee\_count DESC

--• Is there a correlation between manager and performance score?

SELECT ManagerName,AVG(PerformanceScore) AS AvgPerformanceScore

FROM tblhr

GROUP BY ManagerName;

--• How does employee satisfaction vary across different managers?

select ManagerName, (select avg(EmpSatisfaction) from tblhr) from tblhr group by ManagerName

--9.Diversity and Inclusion:

--• What is the diversity ratio within the company?

select RaceDesc,count(\*) as numofemp, COUNT(\*)\*1.0/(select count(\*) from tblhr) from tblhr group by RaceDesc

--• How does diversity correlate with performance score?

select RaceDesc, avg(performancescore) from tblhr group by RaceDesc

--• Is there a correlation between diversity and termination reasons?

select RaceDesc, TermReason, count(\*) from tblhr group by RaceDesc, TermReason

--10.Special Projects:

--• How many employees are involved in special projects?

select count(empid) from tblhr where SpecialProjectsCount > 0

--• Is there a correlation between involvement in special projects and performance score?

SELECT SpecialProjectsCount, AVG(PerformanceScore) AS AvgPerformanceScore

FROM tblhr

GROUP BY SpecialProjectsCount;

--• How does involvement in special projects vary across departments?

SELECT Department, COUNT(SpecialProjectsCount) AS SpecialProjectsCount

FROM tblhr

GROUP BY Department;