SQL Questions Based on HR Analytics Dataset

- **Beginner Level (Basics: SELECT, WHERE, ORDER BY, GROUP BY)**

1. Retrieve all columns from the dataset.
2. Show all employees who are older than 30.
3. List the unique job roles in the company.
4. Find the top 10 highest paid employees by MonthlyIncome.
5. Display the number of employees in each department.
6. Count how many employees are in the Sales department.
7. Show employees who have "Yes" in the Attrition column.
8. Get the average DailyRate for all employees.
9. Retrieve employees who travel "Frequently".
10. Find the minimum and maximum Age of employees.
11. List employees with Education level 3.
12. Show how many employees are there in each EducationField.
13. Sort employees by YearsAtCompany in descending order.
14. Find the total number of employees who are male.
15. List all employees who are working in the "Research & Development" department.
16. Show the employee(s) with the highest HourlyRate.
17. Display the count of employees in each MaritalStatus group.
18. Show the EmpID, Age, and MonthlyIncome for employees with overtime.
19. Count the number of employees in each BusinessTravel category.
20. Show all female employees under the age of 25.

- **Intermediate Level (Aggregations, CASE, JOINS, Subqueries, Window Functions)**

21. Find the average MonthlyIncome by department.
22. Identify the average YearsAtCompany for each job role.
23. Display total MonthlyRate grouped by Gender.
24. Calculate the percentage of employees who left the company (Attrition = Yes).
25. For each department, find the employee with the highest MonthlyIncome.

26. Show average PerformanceRating by JobRole.
27. Display employees who earn more than the average MonthlyIncome.
28. Find employees who have more than 5 years in the company but no promotion (YearsSinceLastPromotion = 0).
29. Rank employees by MonthlyIncome within each department.
30. Write a CASE statement to categorize MonthlyIncome as "Low", "Medium", or "High".
31. List employees with the maximum YearsWithCurrManager in each department.
32. Count how many employees had training more than 3 times last year.
33. Show average satisfaction (JobSatisfaction) by Gender and MaritalStatus.
34. Identify employees with above-average PerformanceRating and below-average MonthlyIncome.
35. Create a query to show number of employees grouped by both Gender and Department.
36. Use a subquery to find employees who have the minimum DistanceFromHome.
37. Identify how many employees have never changed jobs (NumCompaniesWorked = 1 and YearsAtCompany > 1).
38. Calculate average TotalWorkingYears for employees aged between 30 and 40.
39. Find employees who were hired recently (YearsAtCompany = 0) but already have OverTime = Yes.
40. Write a query to calculate the attrition rate per AgeGroup.
41. Compare average MonthlyIncome between employees who do and do not work overtime.
42. Show the top 5 departments with the highest average JobSatisfaction.
43. Find which EducationField has the most employees who left (Attrition = Yes).
44. Identify employees whose JobLevel is higher than the average job level for their department.
45. Show the distribution of OverTime across different JobRoles.
46. List all employees who have received a PercentSalaryHike greater than 15.
47. For each JobRole, calculate the average number of TrainingTimesLastYear.
48. Identify employees who have worked at more than 3 companies and have Attrition = Yes.
49. Calculate the average WorkLifeBalance by Department.
50. Write a query to find the correlation between OverTime and Attrition.