HR Data Analysis

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Task-1

Aim: To analyse the given dataset 'HR_Data_Analysis' and perform the following queries in MS SQL.

Used Databases Names: general_data$;
employee_survey_data;
manager_survey_data;
in_time;
data_dictionary$;

1. Retrieve the total number of employees in the dataset.

ANS

```
SELECT COUNT(EmployeeID) As no_ofEmployees FROM general_data$;
```

2. List all unique job roles in the dataset.

ANS

```
SELECT DISTINCT(JobRole) FROM general_data$;
```

3. Find the average age of employees.

ANS

```
SELECT AVG(Age) FROM general_data$;
```

4. Retrieve the names and ages of employees who have worked at the company for more than 5 years.

ANS

```
SELECT [Emp Name],Age FROM general_data$ WHERE YearsAtCompany>5;
```

5. Get a count of employees grouped by their department.

ANS

```
SELECT COUNT(EmployeeID),Department FROM general_data$ GROUP BY
Department;
```

6. List employees who have 'High' Job Satisfaction.

ANS

```
SELECT general_data$.EmployeeID,[Emp Name],employee_survey_data.JobSatisfaction
FROM general_data$ JOIN employee_survey_data ON general_data$.EmployeeID =
employee_survey_data.EmployeeID ORDER BY JobSatisfaction DESC;
```

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7. Find the highest Monthly Income in the dataset.

ANS

```
SELECT MAX(MonthlyIncome) FROM general_data$;
```

8. List employees who have 'Travel_Rarely' as their BusinessTravel type.

ANS

```
SELECT [Emp Name] FROM general_data$ WHERE BusinessTravel IN
('Travel_Rarely');
```

9. Retrieve the distinct MaritalStatus categories in the dataset.

ANS

```
SELECT DISTINCT(MaritalStatus) FROM general_data$;
```

10. Get a list of employees with more than 2 years of work experience but less than 4 years in their current role.

ANS

```
SELECT [Emp Name] FROM general_data$ WHERE TotalWorkingYears IN(2,4);
```

11. List employees who have changed their job roles within the company (JobLevel and JobRole differ from their previous job).

ANS

```
SELECT [Emp Name] FROM general_data$ WHERE JobLevel!= JobLevel AND
JobRole!=JobRole;
```

12. Find the average distance from home for employees in each department.

ANS

```
SELECT Department,AVG(DistanceFromHOME)AS Avg_Distance FROM
general_data$ GROUP BY Department;
```

13. Retrieve the top 5 employees with the highest MonthlyIncome.

ANS

```
SELECT  TOP 5  MonthlyIncome, [Emp Name] FROM general_data$ ORDER BY
MonthlyIncome DESC ;
```

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14. Calculate the percentage of employees who have had a promotion in the last year.

ANS

```
SELECT COUNT(*)*100/(SELECT COUNT(*) FROM general_data$) AS
Promotion_percentage FROM general_data$ WHERE YearsSinceLastPromotion=1;
```

15. List the employees with the highest and lowest EnvironmentSatisfaction.

ANS

```
SELECT EmployeeID,EnvironmentSatisfaction AS High_EnvironmentSatisfaction
FROM employee_survey_dataWhere EnvironmentSatisfaction = 4
UNION ALL
SELECT EmployeeID,EnvironmentSatisfaction AS Low_EnvironmentSatisfaction
FROM employee_survey_data Where EnvironmentSatisfaction = 1 ;
```

16. Find the employees who have the same JobRole and MaritalStatus.

ANS

```
SELECT a.employeeid, a. jobrole, b.jobrole, a.maritalstatus, b.maritalstatus from
general_data$ a join general_data$ b on a.EmployeeID=b. EmployeeID
where a.JobRole=b.jobrole and a. MaritalStatus=b.MaritalStatus
```

17. List the employees with the highest TotalWorkingYears who also have a PerformanceRating of 4.

ANS

```
SELECT general_data$.EmployeeID,general_data$.TotalWorkingYears,
PerformanceRating FROM general_data$ JOIN manager_survey_data ON
general_data$.EmployeeID =manager_survey_data.EmployeeID WHERE
manager_survey_data.PerformanceRating=4
ORDER BY general_data$.TotalWorkingYears DESC ;
```

18. Calculate the average Age and JobSatisfaction for each BusinessTravel type.

ANS

```
SELECT E.BusinessTravel,AVG(E.Age) As Averageage,AVG(J.JobSatisfaction)AS
Averagejobsatisfaction FROM general_data$ E JOIN employee_survey_data J ON
E.EmployeeID=J.EmployeeID GROUP BY E.BusinessTravel;
```

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19. Retrieve the most common EducationField among employees.

ANS

```
SELECT EducationField FROM general_data$ GROUP BY EducationField ORDER
BY EducationField DESC;
```

20. List the employees who have worked for the company the longest but haven't had a promotion

ANS

```
SELECT EmployeeID,MAX(YearsAtCompany)AS Maxnoofyears FROM
general_data$ WHERE YearsSinceLastPromotion =0 GROUP BY EmployeeID
ORDER BY Maxnoofyears DESC ;
```