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Introduction

Hello there! Welcome to our online internship on SQL for HR Data Analysis. In this program, we delve into the fascinating realm of data science and data dictionary, manager survey data combining the power of SQL with the critical task of data analysing. As a student BTech in Computer Science with a keen interest in software development, you'll find this internship to be a valuable opportunity to apply your skills and expand your knowledge.

Aim: To analyse the given dataset 'HR_Data_Analysis.xlsx' and perform the following queries in MySQL.

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

ANS:

```
SELECT COUNT(EMPLOYEEID) FROM GENERAL_DATA;
```

2. List all unique job roles in the dataset.

ANS:

```
SELECT DISTINCT JOB 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 EMPLOYEEID,AGE FROM GENERAL_DATA WHERE JOBLEVEL>5
```

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

ANS:

```
SELECT COUNT (*) FROM GENERAL_DATA GROUPBY DEPARTMENT;
```

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

ANS:

```
SELECT EMPLOYEEID FROM GENERAL_DATA WHERE JOBSATISFACTION IN('HIGH');
```

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 EMPLOYEEID FROM GENERAL_DATA WHERE BUSSINESSTRAVEL  
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 EMPLOYEEID FROM GENERAL_DATA WHERE TotalWorkingYears>2 AND  
YEARSATCOMPANY<4;
```

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

ANS:

```
select * from GENERAL_DATA
where JobLevel!=JobRole and JobRole1!=JobRole and
```

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

ANS:

```
SELECT AVG(DistanceFromHome) FROM GENERAL_DATA GROUP BY DEPARTMENT;
```

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

ANS:

```
SELECT DISTINCT EMPLOYEEID
FROM GENERAL_DATA
WHERE ROWNUM<6
ORDER BY MONTHLYINCOME DESC;
```

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

ANS:

```
SELECT TRUNC (MONTH_BETWEEN (PERCENTSALARYHIKE, SYSDATE))
FROM GENERAL_DATA;
```

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

ANS:

```
SELECT EMPLOYEEID FROM employee_survey_data
WHERE EnvironmentSatisfaction IN (SELECT MAX(EnvironmentSatisfaction)
FROM employee_survey_data) or EnvironmentSatisfaction
IN(SELECT MIN(EnvironmentSatisfaction) FROM employee_survey_data);
```

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

ANS:

```
SELECT * from GENERAL_DATA
where MaritalStatus=MaritalStatus and JobRole=JobRole;
```

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

ANS:

```
SELECT EMPLOYEEID FROM GENERAL_DATA
WHERE TotalWorkingYears IN(SELECT MAX(TotalWorkingYears)
FROM GENERAL_DATA) AND PerformanceRating=4;
```

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

ANS:

```
SELECT avg(Age),avg(JobSatisfaction)
from GENERAL_DATA
where employee_survey_data.EmployeeID=GENERAL_DATA.EmployeeID
group by BusinessTravel;
```

19. Retrieve the most common EducationField among employees.

ANS:

```
SELECT EducationField,count(EducationField)
from GENERAL_DATA group by EducationField
having count(EducationField)>=1
order by EducationField desc;
```

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

ANS:

```
SELECT * from GENERAL_DATA
```

```
where YearsAtCompany= (select max (YearsAtCompany) from GENERAL_DATA)
```

```
and YearsSinceLastPromotion=0;
```