

A

REPORT

ON

HR ANALYTICS

PEFORMED BY

IBAD ASAD QUADRI (BSC CHEMISTRY)

GUIDED BY

SARJIL SATWARE(MS-IT & SPECIALIZATION
IN DATA SCIENCE)

DATE OF SUBMISSION:-

DECLARTION

This is to declare that MR. IBAD ASAD QUADRI (BSC CHEMISTRY) have successfully completed their project titled: "DATA ANALYTICS ON MEDICAL DATA ANALYSIS" as part of their academic curriculum. The project was completed under the valuable guidance of MR. SARJIL SATWARE (M.SC. IN IT & SPECIALIZATION IN DATA SCIENCE)

SUBMITTED BY :-

IBAD ASAD QUADRI

Aim:-

The aim of this HR Analytics project is to analyze employee data to identify key factors affecting attrition, performance, and satisfaction, and to help the HR department make data-driven decisions for improving employee engagement and retention.

This project uses MySQL for data analysis and Power BI for visualization and reporting.

Objective

1. To collect and manage HR data (employee details, job roles, salary, satisfaction, etc.) in a structured MySQL database.
2. To analyze employee attrition and identify major causes such as job role, department, salary, and work experience.
3. To measure employee performance trends and find correlations between performance, satisfaction, and retention.
4. To develop an interactive Power BI dashboard that visualizes HR insights like attrition rate, average tenure, department-wise performance, and satisfaction level.
5. To provide actionable recommendations for improving retention, recruitment strategy, and overall workforce management.

Keywords :-

“Performed employee attrition and satisfaction analysis using MySQL and Power BI to generate data-driven insights for HR decision-making and workforce optimization.”

TOOLS/SOFTWARES USED :

FOR DATA RETRIEVAL:

MYSQL COMMUNITY SERVER & MYSQL WORKBENCH

FOR DATA IMPORT & EXPORT:

EXCEL

FOR DATA VISUALIZATION:

POWERBI.

PROCEDURE :-

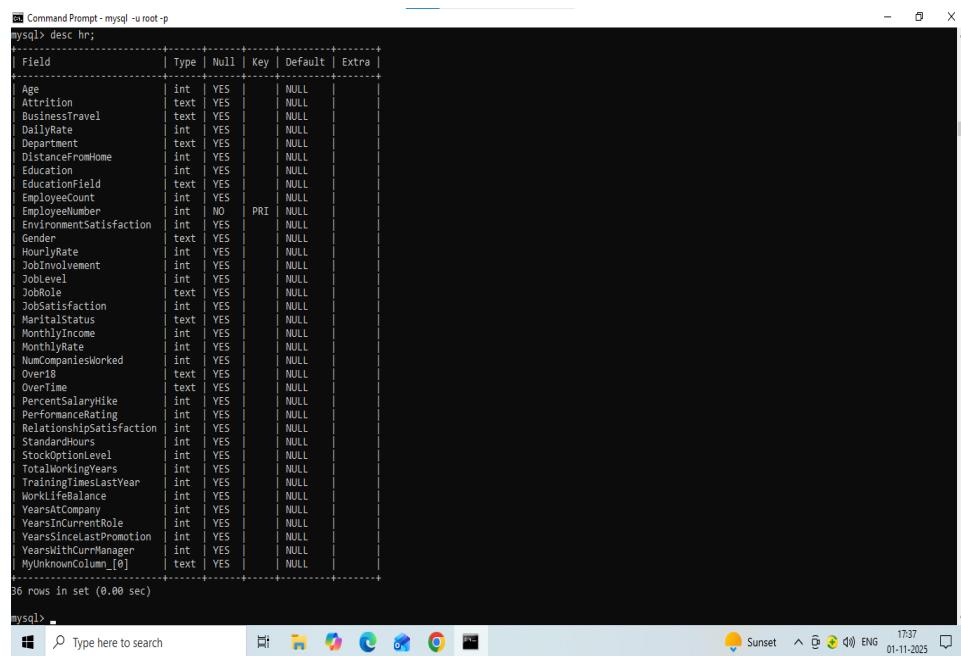
CREATING DATABASE:-

```
mysql> create database HR;
Query OK, 1 row affected (0.24 sec)
```

TAKING OUR CREATED DATABASE IN CUSTODY FOR MAKING CHANGES:-

```
mysql> use HR;
Database changed
```

CREATING THE TABLE SHOWING THE CREADED TABLES AND STRUCTURE OF THE TABLE :-



```
mysql> desc hr;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Age | int | YES | NULL | NULL |
| Attrition | text | YES | NULL | NULL |
| BusinessTravel | text | YES | NULL | NULL |
| DailyRate | int | YES | NULL | NULL |
| Department | text | YES | NULL | NULL |
| DistanceFromHome | int | YES | NULL | NULL |
| Education | int | YES | NULL | NULL |
| EducationField | text | YES | NULL | NULL |
| EmployeeCount | int | YES | NULL | NULL |
| EmployeeNumber | int | NO | PRI | NULL |
| EnvironmentSatisfaction | int | YES | PRI | NULL |
| Gender | text | YES | NULL | NULL |
| HourlyRate | int | YES | NULL | NULL |
| JobInvolvement | int | YES | NULL | NULL |
| JobLevel | int | YES | NULL | NULL |
| JobRole | text | YES | NULL | NULL |
| JobSatisfaction | int | YES | NULL | NULL |
| MaritalStatus | text | YES | NULL | NULL |
| MonthlyIncome | int | YES | NULL | NULL |
| MonthlyRate | int | YES | NULL | NULL |
| NumCompaniesWorked | int | YES | NULL | NULL |
| Over18 | text | YES | NULL | NULL |
| Overtime | text | YES | NULL | NULL |
| PercentSalaryHike | int | YES | NULL | NULL |
| PerformanceRating | int | YES | NULL | NULL |
| RelationshipSatisfaction | int | YES | NULL | NULL |
| StandardHours | int | YES | NULL | NULL |
| StockOptionLevel | int | YES | NULL | NULL |
| TotalWorkingYears | int | YES | NULL | NULL |
| TrainingTimesLastYear | int | YES | NULL | NULL |
| WorkLifeBalance | int | YES | NULL | NULL |
| YearsAtCompany | int | YES | NULL | NULL |
| YearsInCurrentRole | int | YES | NULL | NULL |
| YearsSinceLastPromotion | int | YES | NULL | NULL |
| YearsWithCurrManager | int | YES | NULL | NULL |
| MyUnknownColumn_{} | text | YES | NULL | NULL |
+-----+-----+-----+-----+-----+
36 rows in set (0.00 sec)

mysql>
```

DISPLAYING THE INSERTED VALUE TABLE FORMAT :

```
Command Prompt - mysql -u root -p
mysql> ALTER TABLE department MODIFY COLUMN DeptID INT AUTO_INCREMENT PRIMARY KEY;
ERROR 1068 (42000): Multiple primary key defined
mysql> select * from HR;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimeLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 | DeptID |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 44 | Yes | Travel_Rarely | 1102 | Sales | 2 | Sales Executive | 1 | 2 | Life Sciences | 4 | Single | 1 | 5993 | 19479 | 1 | | |
| 8 | Y | Female | 94 | 3 | 3 | 1 | 1 | 80 | 5 | 0 | NULL | 1 | 2 | 8 |
| 49 | No | Travel_Frequently | 279 | Research & Development | 8 | Research Scientist | 1 | 1 | Life Sciences | 2 | Married | 1 | 5130 | 24907 | 2 |
| 3 | Male | 61 | 2 | 2 | 4 | 4 | 80 | 7 | 1 | NULL | 1 | 10 | 18 |
| 1 | Y | No | 3 | 23 | 7 | 4 | 80 | 0 | 2 | Other | 3 | Single | 1 | 2900 | 2396 | 4 |
| 37 | Yes | Travel_Rarely | 1373 | Research & Development | 2 | 1 | Laboratory Technician | 2 | 0 | 0 | 0 | 0 | 7 | 2900 | 23159 | 5 |
| 4 | Male | 92 | 2 | 15 | 3 | 3 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2909 | 23159 | 8 |
| 6 | Y | Yes | 3 | 8 | 0 | 0 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2909 | 23159 | 6 |
| 44 | No | Travel_Frequently | 1392 | Research & Development | 3 | 1 | Research Scientist | 3 | 0 | 0 | 0 | 0 | 8 | 27 | 3468 | 16632 | 7 |
| 1 | Y | Female | 56 | 3 | 11 | 3 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2909 | 23159 | 8 |
| 3 | Male | 3 | 8 | 7 | 3 | 3 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2909 | 23159 | 8 |
| 27 | No | Travel_Rarely | 591 | Research & Development | 2 | 1 | Laboratory Technician | 2 | 0 | 0 | 0 | 0 | 8 | 3068 | 11864 | 8 |
| 1 | Y | No | 40 | 12 | 3 | 3 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2909 | 23159 | 8 |
| 9 | Y | Male | 3 | 2 | 2 | 2 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2909 | 23159 | 8 |
| 32 | No | Travel_Frequently | 1005 | Research & Development | 2 | 1 | Laboratory Technician | 2 | 0 | 0 | 0 | 0 | 8 | 3068 | 11864 | 8 |
| 4 | Male | 79 | 3 | 13 | 3 | 3 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2909 | 23159 | 8 |
| 44 | No | Travel_Rarely | 1324 | Research & Development | 3 | 1 | Laboratory Technician | 3 | 0 | 0 | 0 | 0 | 12 | 2670 | 9964 | 10 |
| 4 | Y | Female | 81 | 20 | 4 | 4 | 80 | 0 | 2 | Other | 3 | Married | 1 | 2670 | 9964 | 12 |
| 3 | Male | 2 | 1 | 0 | 0 | 0 | 0 | 24 | 1 | Life Sciences | 1 | 1 | 11 | 1 | 11 | 11 |
| 30 | No | Travel_Rarely | 1358 | Research & Development | 24 | 1 | Life Sciences | 1 | 1 | Life Sciences | 1 | 1 | 11 | 1 | 11 | 11 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

USING (TCL) TRANSACTION CONTROL LANGUAGE:-

```
Command Prompt - mysql -u root -p
mysql> set autocommit=0;
Query OK, 0 rows affected (0.00 sec)

mysql> savepoint sv1;
Query OK, 0 rows affected (0.02 sec)

mysql> update HR set age=44 where gender="female";
Query OK, 0 rows affected (0.00 sec)
Rows matched: 115 Changed: 0 Warnings: 0

mysql> update HR set age=49 where gender="male";
Query OK, 182 rows affected (0.01 sec)
Rows matched: 184 Changed: 182 Warnings: 0

mysql> savepoint sv2;
Query OK, 0 rows affected (0.00 sec)

mysql> update HR set daily_rate=1102 where education=2;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'rate 1102 whe
re education=2' at line 1
mysql> update HR set dailyrate= 1102 where education=2;
Query OK, 65 rows affected (0.03 sec)
Rows matched: 66 Changed: 65 Warnings: 0

mysql> update HR set dailyrate= 279 where education=8;
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0 Changed: 0 Warnings: 0

mysql> savepoint sv3;
Query OK, 0 rows affected (0.00 sec)

mysql> update HR set education=4 where hourlyrate=94;
Query OK, 5 rows affected (0.00 sec)
Rows matched: 7 Changed: 5 Warnings: 0

mysql> update HR set education=8 where hourlyrate=61;
Query OK, 6 rows affected (0.00 sec)
Rows matched: 6 Changed: 6 Warnings: 0

mysql>
```

AFTER SAVEPOINT:-

BACK TO ORGINAL TABLE:-

USE OF OPERATORS

1. EQUAL TO (=)

```
Command Prompt - mysql -u root -p
+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 41 | No | Travel_Rarely | 802 | Sales | 3 | Sales Executive | 9 | 1 | Life Sciences | 1 | 21196 | 176 | |
| 3 | Y | Yes | 96 | 13 | 3 | Sales Executive | 9 | 1 | Divorced | 1 | 8189 | 12 |
| 2 | 41 | No | Travel_Frequently | 857 | Research & Development | 7 | 0 | 7 | Life Sciences | 1 | 199 |
| 4 | Male | 91 | 2 | 4 | Manager | 10 | 1 | Divorced | 1 | 12888 | 21 |
| 2 | 4 | Y | No | 13 | 6 | 3 | 7 | 80 | 1 | 2238 | 6961 |
| 2 | 41 | No | Travel_Rarely | 933 | Research & Development | 9 | 4 | Life Sciences | 1 | 200 |
| 3 | Male | 94 | 3 | 1 | Laboratory Technician | 9 | 1 | Married | 1 | 4609 | 7 |
| 2 | 2 | Y | No | 21 | 5 | 4 | 4 | 80 | 1 | 3072 | 19877 |
| 2 | 41 | No | Travel_Rarely | 465 | Research & Development | 14 | 3 | Life Sciences | 1 | 227 |
| 1 | Male | 56 | 3 | 1 | Research Scientist | 1 | 1 | Divorced | 1 | 2451 | 13 |
| 2 | 4 | Y | No | 12 | 8 | 3 | 1 | 80 | 1 | 2 | Life Sciences | 1 | 334 |
| 2 | 41 | No | Travel_Rarely | 1411 | Research & Development | 19 | 1 | Divorced | 1 | 80 | 2 | 17 |
| 3 | Male | 36 | 3 | 2 | Research Scientist | 1 | 1 | 0 | 0 | 0 | 0 |
| 2 | 2 | Y | No | 16 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.06 sec)

mysql>
```

NOT EQUAL TO (!=)

```
Command Prompt - mysql -u root -p
5 rows in set (0.06 sec)
mysql> select * from HR where employeeNumber!=8;
ERROR 1054 (42S22): Unknown column 'employeeNumber' in 'where clause'
mysql> select * from HR where HourlyRate!=6;
+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 44 | Yes | Travel_Rarely | 1102 | Sales | 2 | Sales Executive | 1 | 2 | Life Sciences | 1 | 19479 | 1 | | |
| 2 | Female | 94 | 11 | 3 | 2 | Sales Executive | 1 | 4 | Single | 1 | 5993 | 8 |
| 8 | Y | Yes | 1 | 6 | 4 | 0 | 80 | 5 | 0 | 0 | 0 | 0 |
| 49 | No | Travel_Frequently | 279 | Research & Development | 8 | 1 | Life Sciences | 1 | 2 | Married | 1 | 5130 | 10 |
| 1 | 3 | Male | 61 | 2 | 2 | Research Scientist | 4 | 4 | 80 | 2 | 24907 | 18 |
| 3 | 1 | Y | No | 23 | 7 | 1 | 1 | 7 | 1 | 1 | 1 | 1 | 4 |
| 37 | Yes | Travel_Rarely | 1373 | Research & Development | 2 | 2 | Other | 1 | 1 | Single | 1 | 2090 | 7 |
| 4 | Male | 92 | 15 | 2 | 1 | Laboratory Technician | 3 | 3 | 80 | 0 | 2396 | 7 |
| 6 | 6 | Y | Yes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | No | Travel_Frequently | 1392 | Research & Development | 3 | 4 | Life Sciences | 1 | 3 | Married | 1 | 2909 | 8 |
| 3 | 4 | Female | 56 | 11 | 3 | 1 | Research Scientist | 3 | 3 | 80 | 0 | 23159 | 8 |
| 1 | 1 | Y | Yes | 8 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27 | 3 | No | Travel_Rarely | 591 | Research & Development | 2 | 1 | Medical | 1 | 2 | Married | 1 | 3468 | 7 |
| 1 | Male | 40 | 3 | 1 | Laboratory Technician | 4 | 2 | 80 | 1 | 16632 | 6 |
| 9 | 9 | Y | No | 12 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 |
| 32 | 3 | No | Travel_Frequently | 1005 | Research & Development | 2 | 2 | Life Sciences | 1 | 4 | Single | 1 | 3068 | 8 |
| 4 | 4 | Male | 79 | 13 | 3 | 1 | Laboratory Technician | 3 | 3 | 80 | 0 | 11864 | 8 |
| 8 | 2 | Y | No | 7 | 7 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 44 | 2 | No | Travel_Rarely | 1324 | Research & Development | 3 | 3 | Medical | 1 | 1 | Married | 1 | 2670 | 10 |
| 3 | 3 | Female | 81 | 4 | 1 | Laboratory Technician | 4 | 1 | 80 | 3 | 9964 | 12 |
| 4 | 4 | Y | Yes | 20 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.06 sec)

mysql>
```

GREATER THAN (>)

' at line 1																
mysql> select * from Hr where age > 37;																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
Age Attrition BusinessTravel DailyRate Department DistanceFromHome Education EducationField EmployeeCount EmployeeNumber Enviro																
nmentsSatisfaction Gender HourlyRate JobInvolvement JobLevel JobRole Jobsatisfaction MaritalStatus MonthlyIncome MonthlyRate NumCom																
panyesWorked Over18 Overtime PercentSalaryHike PerformanceRating RelationshipSatisfaction StandardHours StockOptionLevel TotalWorkingYears TrainingTime																
sLastYear WorkLifeBalance YearsAtCompany YearsInCurrentRole YearsSinceLastPromotion YearsWithCurManager MyUnknownColumn_0																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
44 Yes Travel_Rarely 94 1102 Sales 2 Sales Executive 1 2 Life Sciences 1 5993 1 19479																
8 Y Female Yes 1 11 3 3 1 1 80 0 8 1 8																
49 No Travel_Frequently 61 279 Research & Development 2 Research Scientist 8 1 Life Sciences 1 5130 1 24907																
1 Y Male No 23 23 4 4 1 4 80 1 10 1 10																
44 No Travel_Frequently 56 1392 Research & Development 3 Research Scientist 3 4 Life Sciences 1 2909 1 23159																
1 Y Female Yes 11 11 3 3 1 3 80 0 8 1 8																
44 No Travel_Rarely 81 1324 Research & Development 4 Laboratory Technician 3 3 Medical 1 2670 1 9964																
4 Y Female Yes 20 20 4 4 1 4 80 1 12 1 12																
38 No Travel_Frequently 44 216 Research & Development 2 Manufacturing Director 23 3 Life Sciences 3 9526 1 8787																
2 Y Male No 21 21 4 4 1 2 80 0 10 1 10																
44 No Travel_Rarely 153 Research & Development 15 2 Life Sciences 1 1 15 1 15 1 15																

GREATER THAN EQUAL TO (\geq)

Command Prompt - mysql -u root -p																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
5 No Travel_Frequently 2 555 Sales 2 Sales Executive 26 3 Marketing 2 Marketing 1 484																
3 Female No 77 14 3 4 Sales Executive 4 2 Married 2 Married 13525 14864																
5 Y No 20 4 4 4 3 4 80 1 23 1 23																
183 rows in set (0.00 sec)																
mysql> select * from Hr where age >= 44;																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
Age Attrition BusinessTravel DailyRate Department DistanceFromHome Education EducationField EmployeeCount EmployeeNumber Enviro																
nmentsSatisfaction Gender HourlyRate JobInvolvement JobLevel JobRole Jobsatisfaction MaritalStatus MonthlyIncome MonthlyRate NumCom																
panyesWorked Over18 Overtime PercentSalaryHike PerformanceRating RelationshipSatisfaction StandardHours StockOptionLevel TotalWorkingYears TrainingTime																
sLastYear WorkLifeBalance YearsAtCompany YearsInCurrentRole YearsSinceLastPromotion YearsWithCurManager MyUnknownColumn_0																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
44 Yes Travel_Rarely 94 1102 Sales 2 Sales Executive 1 2 Life Sciences 1 5993 1 19479																
8 Y Female Yes 1 11 3 3 1 1 80 0 8 1 8																
49 No Travel_Frequently 61 279 Research & Development 2 Research Scientist 8 1 Life Sciences 1 5130 1 24907																
1 Y Male No 23 23 4 4 1 4 80 1 10 1 10																
44 No Travel_Frequently 56 1392 Research & Development 3 Research Scientist 3 4 Life Sciences 1 2909 1 23159																
1 Y Female Yes 11 11 3 3 1 3 80 0 8 1 8																
44 No Travel_Rarely 81 1324 Research & Development 4 Laboratory Technician 3 3 Medical 1 2670 1 9964																
4 Y Female Yes 20 20 4 4 1 4 80 1 12 1 12																
38 No Travel_Frequently 44 216 Research & Development 2 Manufacturing Director 23 3 Life Sciences 3 9526 1 8787																
2 Y Male No 21 21 4 4 1 2 80 0 10 1 10																
44 No Travel_Rarely 153 Research & Development 15 2 Life Sciences 1 1 15 1 15 1 15																

Air quality forecast 18:28
24/10/2025

LESS THAN(<)

```
Command Prompt - mysql -u root -p
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
158 rows in set (0.00 sec)

mysql> select * from Hr where joblevel < 2;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 37 | Yes | Travel_Rarely | 1373 | Research & Development | 2 | 2 | Other | 1 | 2396 | 4 | |
| 6 | Y | Male | 92 | 15 | 3 | 3 | Laboratory Technician | 2 | 80 | 0 | 7 |
| 3 | No | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | No | Travel_Frequently | 1392 | Research & Development | 3 | 4 | Life Sciences | 1 | 23159 | 5 |
| 1 | Yes | Female | 56 | 11 | 3 | 1 | Research Scientist | 3 | 80 | 0 | 8 |
| 3 | Yes | Yes | 1 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 27 | No | Travel_Rarely | 591 | Research & Development | 2 | 1 | Medical | 1 | 16632 | 7 |
| 9 | Y | Male | 40 | 12 | 3 | 1 | Laboratory Technician | 4 | 80 | 1 | 6 |
| 3 | No | 3 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 32 | No | Travel_Frequently | 1005 | Research & Development | 2 | 2 | Life Sciences | 1 | 11864 | 8 |
| 0 | Y | Male | 79 | 13 | 3 | 1 | Laboratory Technician | 3 | 80 | 0 | 8 |
| 2 | No | 2 | 7 | 7 | 7 | 3 | 3 | 0 | 0 | 0 | 0 |
| 44 | No | Travel_Rarely | 1324 | Research & Development | 3 | 3 | Medical | 1 | 9964 | 10 |
| 4 | Yes | Female | 81 | 20 | 4 | 1 | Laboratory Technician | 1 | 80 | 0 | 12 |
| 3 | Yes | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | No | Travel_Rarely | 1358 | Research & Development | 24 | 1 | Life Sciences | 1 | 13335 | 11 |
| 1 | Y | Male | 67 | 22 | 3 | 1 | Laboratory Technician | 2 | 80 | 1 | 1 |
| 2 | No | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | No | Travel_Rarely | 809 | Research & Development | 16 | 3 | Divorced | 1 | 2693 | 11 |
| 2 | No | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | No | Travel_Rarely | 809 | Research & Development | 16 | 3 | Medical | 1 | 1 | 14 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

LESS THAN EQUAL TO(<=)

```
Command Prompt - mysql -u root -p
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 35 | No | Travel_Rarely | 1232 | Sales | 3 | 3 | Sales Executive | 16 | 3 | Marketing | 1 | 406 | 5100 | |
| 0 | Y | Male | 96 | 15 | 3 | 3 | Sales Executive | 16 | 3 | Married | 1 | 8020 | 5100 |
| 3 | No | 3 | 2 | 11 | 9 | 0 | 6 | 9 | 2 | 12 |
| 36 | No | Travel_Frequently | 566 | Research & Development | 4 | 4 | 1 | Laboratory Technician | 18 | 4 | Life Sciences | 1 | 407 | 7122 |
| 4 | Yes | Male | 81 | 18 | 0 | 0 | 0 | 4 | 80 | 0 | 4 |
| 2 | No | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 299 rows in set (0.00 sec)

mysql> select * from HR where JobLevel <= 1;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 37 | Yes | Travel_Rarely | 1373 | Research & Development | 2 | 2 | Other | 1 | 2396 | 4 | |
| 6 | Y | Male | 92 | 15 | 3 | 3 | Laboratory Technician | 2 | 80 | 0 | 7 |
| 3 | No | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | No | Travel_Frequently | 1392 | Research & Development | 3 | 4 | Life Sciences | 1 | 23159 | 5 |
| 1 | Yes | Female | 56 | 11 | 3 | 1 | Research Scientist | 3 | 80 | 0 | 8 |
| 3 | Yes | Yes | 1 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 27 | No | Travel_Rarely | 591 | Research & Development | 2 | 1 | Medical | 1 | 16632 | 7 |
| 9 | Y | Male | 40 | 12 | 3 | 1 | Laboratory Technician | 4 | 80 | 1 | 6 |
| 3 | No | 3 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 32 | No | Travel_Frequently | 1005 | Research & Development | 2 | 2 | Life Sciences | 1 | 11864 | 8 |
| 0 | Y | Male | 79 | 13 | 3 | 1 | Laboratory Technician | 3 | 80 | 0 | 8 |
| 2 | No | 2 | 7 | 7 | 7 | 3 | 3 | 0 | 0 | 0 | 0 |
| 44 | No | Travel_Rarely | 1324 | Research & Development | 3 | 3 | Medical | 1 | 9964 | 10 |
| 2 | No | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | No | Travel_Rarely | 809 | Research & Development | 16 | 3 | Divorced | 1 | 2693 | 11 |
| 2 | No | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | No | Travel_Rarely | 809 | Research & Development | 16 | 3 | Medical | 1 | 1 | 10 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

NULL

```
mysql> select * from hr where age is null;
Empty set (0.01 sec)
```

NOT NULL

```
Command Prompt - mysql -u root -p
mysql> select * from HR where attrition is not null;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 44 | Yes | Travel_Rarely | 1102 | Sales | 2 | Sales Executive | 1 | 2 | Life Sciences | 4 | Single | 1 | 5993 | 19479 | | |
| 8 | Y | Female | 94 | 11 | 3 | 2 | 3 | 1 | 80 | 0 | 1 | 5 | 1 | 8 |
| 49 | No | Travel_Frequently | 279 | Research & Development | 6 | 4 | 8 | 0 | 1 | 1 | Life Sciences | 2 | Married | 1 | 5130 | 24907 |
| 1 | Y | Male | 61 | 23 | 2 | 2 | Research Scientist | 4 | 80 | 1 | 2 | Married | 1 | 18 | 10 |
| 37 | Yes | Travel_Rarely | 1373 | Research & Development | 10 | 7 | 1 | 2 | Other | 3 | Single | 1 | 2090 | 2396 |
| 6 | Y | Male | 92 | 15 | 2 | 1 | Laboratory Technician | 3 | 80 | 2 | 3 | Single | 1 | 4 | 7 |
| 44 | No | Travel_Frequently | 1392 | Research & Development | 3 | 8 | 0 | 0 | 1 | 4 | Life Sciences | 3 | Married | 1 | 2909 | 23159 |
| 1 | Y | Female | 56 | 11 | 3 | 1 | Research Scientist | 3 | 80 | 3 | 0 | 1 | 5 | 8 |
| 3 | Y | Male | 79 | 8 | 7 | 3 | 1 | 80 | 2 | 2 | Life Sciences | 4 | Single | 1 | 3068 | 11864 |
| 27 | No | Travel_Rarely | 591 | Research & Development | 3 | 8 | 7 | 3 | 1 | 1 | Medical | 2 | Married | 1 | 3468 | 16632 |
| 9 | Y | Male | 40 | 12 | 3 | 1 | Laboratory Technician | 3 | 80 | 4 | 2 | 1 | 7 | 6 |
| 32 | No | Travel_Frequently | 1005 | Research & Development | 3 | 13 | 2 | 1 | 3 | 2 | Life Sciences | 4 | Single | 1 | 0 | 8 |
| 0 | Y | Male | 79 | 13 | 3 | 1 | Laboratory Technician | 3 | 80 | 3 | 6 | 1 | 8 | 1 |
| 44 | No | Travel_Rarely | 1324 | Research & Development | 8 | 20 | 0 | 4 | 1 | 3 | Medical | 1 | Married | 1 | 2670 | 9964 |
| 4 | Y | Female | 81 | 20 | 0 | 4 | 1 | 80 | 0 | 1 | 1 | 10 | 12 |
| 30 | No | Travel_Rarely | 1358 | Research & Development | 1 | 24 | 0 | 0 | 1 | 1 | Life Sciences | 3 | Divorced | 1 | 2693 | 11 |
| 1 | Y | Male | 67 | 22 | 3 | 1 | Laboratory Technician | 4 | 80 | 2 | 1 | 1 | 1 | 1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

AND

```
Line 1
mysql> select * from HR where age =34 and Dailyrate=1346;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 34 | No | Travel_Rarely | 1346 | Research & Development | 3 | 1 | Laboratory Technician | 19 | 2 | Medical | 4 | Divorced | 1 | 2661 | 8758 | 18 |
| 2 | Male | 93 | 11 | 3 | 1 | 2 | 3 | 1 | 80 | 2 | 1 | 1 | 3 | 2 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

OR

```
Command Prompt - mysql -u root -p
mysql> select * from HR where age =29 or Dailyrate=591;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | JobSatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 27 | No | Travel_Rarely | 591 | Research & Development | 1 | 1 | 1 | 2 | Medical | 2 | Married | 1 | 3468 | 16632 | 7 | |
| 1 | Male | 40 | 12 | 3 | 1 | 2 | 3 | 4 | 80 | 1 | 1 | 6 | 1 |
| 9 | Y | No | 2 | 12 | 2 | 3 | 2 | 4 | 80 | 2 | 1 | 1 | 1 |
| 29 | No | Travel_Rarely | 1328 | Research & Development | 3 | 2 | 1 | 3 | Life Sciences | 2 | Married | 1 | 2703 | 4956 | 94 |
| 3 | Male | 76 | 23 | 3 | 1 | 4 | 4 | 4 | 80 | 1 | 1 | 6 | 1 |
| 0 | Y | No | 5 | 4 | 0 | 0 | 1 | 1 | 80 | 4 | 1 | 1 | 268 |
| 29 | No | Non-Travel | 1496 | Research & Development | 4 | 1 | 1 | 3 | Technical Degree | 3 | Married | 1 | 4319 | 26283 | 108 |
| 4 | Male | 41 | 13 | 3 | 2 | 1 | 3 | 1 | 80 | 1 | 1 | 10 | 1 |
| 1 | Y | No | 18 | 7 | 0 | 1 | 1 | 1 | 9 | 80 | 0 | 1 | 1 |
| 29 | Yes | Travel_Rarely | 992 | Research & Development | 3 | 5 | 1 | 1 | Research Scientist | 3 | Single | 1 | 2058 | 19757 | 300 |
| 3 | Male | 85 | 14 | 3 | 1 | 4 | 4 | 4 | 80 | 0 | 1 | 7 | 1 |
| 0 | Y | No | 6 | 2 | 1 | 1 | 1 | 1 | 5 | 80 | 0 | 1 | 1 |
| 29 | Yes | Travel_Rarely | 896 | Research & Development | 18 | 2 | 1 | 2 | Research Scientist | 3 | Single | 1 | 2389 | 14961 | 315 |
| 3 | Male | 86 | 13 | 3 | 1 | 3 | 1 | 1 | 80 | 0 | 1 | 4 | 1 |
| 1 | Y | Yes | 4 | 1 | 0 | 0 | 1 | 1 | 1 | 80 | 0 | 1 | 1 |
| 29 | No | Travel_Rarely | 665 | Research & Development | 15 | 3 | 1 | 3 | Research Scientist | 4 | Single | 1 | 2340 | 22673 | 346 |
| 3 | Male | 60 | 19 | 5 | 1 | 1 | 1 | 1 | 80 | 0 | 1 | 6 | 1 |
| 1 | Y | No | 6 | 5 | 1 | 1 | 1 | 1 | 5 | 80 | 0 | 1 | 1 |
| 29 | No | Travel_Rarely | 1247 | Sales | 4 | 3 | 2 | 3 | Sales Executive | 20 | 4 | Divorced | 1 | 6931 | 10732 | 349 |
| 2 | Y | No | 14 | 3 | 2 | 3 | 0 | 4 | 80 | 1 | 1 | 10 | 1 |
| 29 | No | Travel_Rarely | 1210 | Sales | 3 | 2 | 2 | 2 | Sales Executive | 2 | 3 | Married | 1 | 6644 | 3687 | 366 |
| 1 | Male | 78 | 19 | 3 | 2 | 2 | 2 | 2 | 80 | 2 | 1 | 10 | 1 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

BETWEEN

NOTBETWEEN

IN

```
Command Prompt - mysql -u root -p
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'inbetween (2,4,5)' at line 1
mysql> select * from HR where joblevel in (2,4,5);
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | Jobsatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimeLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 44 | Yes | Travel_Rarely | 94 | 1102 | Sales | 2 | Sales Executive | 1 | 2 | Life Sciences | 4 | Single | 1 | 5993 | 1 | 19479 | |
| 8 | Y | Yes | 1 | 6 | 11 | 3 | 2 | Research & Development | 4 | 0 | 80 | 5 | 0 | 0 | 8 |
| 49 | No | Travel_Frequently | 61 | 279 | Research & Development | 2 | Research Scientist | 8 | 1 | Life Sciences | 2 | Married | 1 | 5130 | 2 | 24907 |
| 1 | Y | No | 3 | 10 | 23 | 7 | 4 | 1 | 4 | 4 | 88 | 7 | 1 | 10 |
| 36 | No | Travel_Rarely | 94 | 1299 | Research & Development | 3 | 2 | Healthcare Representative | 27 | 3 | Medical | 3 | Married | 1 | 5237 | 13 | 16577 |
| 6 | Y | No | 3 | 13 | 3 | 3 | 3 | 2 | 2 | 80 | 8 | 2 | 17 |
| 44 | No | Travel_Rarely | 49 | 153 | Research & Development | 2 | Laboratory Technician | 15 | 2 | Life Sciences | 3 | Single | 1 | 4193 | 15 | 12682 |
| 0 | Y | Yes | 3 | 12 | 2 | 3 | 3 | 2 | 2 | 80 | 8 | 0 | 10 |
| 44 | No | Travel_Rarely | 78 | 1219 | Sales | 2 | Manager | 2 | 4 | Life Sciences | 4 | Married | 1 | 15427 | 23 | 22021 |
| 2 | Y | No | 16 | 16 | 3 | 3 | 3 | 3 | 3 | 80 | 7 | 0 | 31 |
| 44 | No | Non-Travel | 96 | 673 | Research & Development | 4 | 2 | Manufacturing Director | 11 | 2 | Other | 3 | Divorced | 1 | 4011 | 26 | 8232 |
| 8 | Y | No | 18 | 4 | 2 | 3 | 3 | 2 | 80 | 3 | 1 | 5 |
| 44 | No | Travel_Rarely | 58 | 1282 | Research & Development | 3 | 5 | Manager | 5 | 3 | Other | 3 | Divorced | 1 | 19094 | 32 | 10735 |
| 4 | Y | No | 11 | 14 | 13 | 3 | 3 | 4 | 4 | 80 | 8 | 1 | 26 |
| 42 | No | Travel_Rarely | 691 | Sales | 8 | 4 | Marketing | 8 | 4 | Marketing | 1 | 1 | 35 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

NOT IN

```
Command Prompt - mysql -u root -p
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | Jobsatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimeLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
130 rows in set (0.00 sec)

mysql> select * from HR where percentSalaryHike not in (11,12,13);
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | Jobsatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Over18 | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimeLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 49 | No | Travel_Frequently | 61 | 279 | Research & Development | 2 | Research Scientist | 8 | 1 | Life Sciences | 2 | Married | 1 | 5130 | 2 | 24907 | |
| 1 | Y | No | 3 | 23 | 7 | 4 | 1 | 4 | 80 | 7 | 1 | 10 |
| 37 | Yes | Travel_Rarely | 92 | 1373 | Research & Development | 2 | 1 | Laboratory Technician | 2 | 2 | Other | 3 | Single | 1 | 2090 | 4 | 2396 |
| 6 | Y | Yes | 15 | 3 | 3 | 3 | 2 | 80 | 0 | 0 | 1 | 7 |
| 44 | No | Travel_Rarely | 81 | 1324 | Research & Development | 0 | 1 | Laboratory Technician | 3 | 3 | Medical | 1 | Married | 1 | 2670 | 10 | 9964 |
| 4 | Y | Yes | 20 | 4 | 4 | 4 | 1 | 80 | 1 | 3 | 12 |
| 38 | No | Travel_Rarely | 67 | 1358 | Research & Development | 3 | 1 | Laboratory Technician | 24 | 1 | Life Sciences | 3 | Divorced | 1 | 2693 | 11 | 13335 |
| 1 | Y | No | 22 | 4 | 4 | 4 | 1 | 80 | 0 | 0 | 1 | 1 |
| 2 | No | Travel_Frequently | 44 | 216 | Research & Development | 2 | 3 | Manufacturing Director | 23 | 3 | Life Sciences | 3 | Single | 1 | 9526 | 12 | 8787 |
| 0 | Y | No | 21 | 4 | 4 | 4 | 2 | 80 | 0 | 0 | 10 |
| 31 | No | Travel_Rarely | 31 | 670 | Research & Development | 3 | 1 | Research Scientist | 26 | 1 | Life Sciences | 3 | Divorced | 1 | 2911 | 16 | 15170 |
| 1 | Y | No | 17 | 5 | 2 | 3 | 4 | 4 | 80 | 3 | 1 | 5 |
| 28 | Yes | Travel_Rarely | 103 | Research & Development | 24 | 3 | Life Sciences | 1 | 1 | 19 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

USE OF AGGREGATE FUNCTION:

1. MIN

```
mysql> select min(monthlyincome) from HR;
+-----+
| min(monthlyincome) |
+-----+
| 1102 |
+-----+
1 row in set (0.00 sec)
```

2. MAX

```
ERROR 1054 (HY000): UNKNOWN column 'NumCompaniesWorked'
mysql> select max(NumCompaniesWorked) from HR;
+-----+
| max(NumCompaniesWorked) |
+-----+
|                      9 |
+-----+
1 row in set (0.00 sec)
```

3. COUNT

```
mysql> select count(age) from hr;
+-----+
| count(age) |
+-----+
|          299 |
+-----+
1 row in set (0.09 sec)
```

4. SUM

```
mysql> select sum(percentSalaryHike) from HR;
+-----+
| sum(percentSalaryHike) |
+-----+
|             4642 |
+-----+
1 row in set (0.06 sec)
```

5. AVG

```
mysql> select Avg(StandardHours) from HR;
+-----+
| Avg(StandardHours) |
+-----+
|        80.0000 |
+-----+
1 row in set (0.00 sec)
```

6.EVEN

8. ODD

Age	Attrition	BusinessTravel	DailyRate	Department	DistanceFromHome	Education	EducationField	EmployeeCount	EmployeeNumber	EnvironmentSatisfaction	Gender	HourlyRate	JobInvolvement	JobLevel	JobRole	JobSatisfaction	MaritalStatus	MonthlyIncome	MonthlyRate	NumCompaniesWorked	Over18	Overtime	PercentSalaryHike	PerformanceRating	RelationshipSatisfaction	StandardHours	StockOptionLevel	TotalWorkingYears	TrainingTimesLastYear	WorkLifeBalance	YearsAtCompany	YearsInCurrentRole	YearsSinceLastPromotion	YearsWithCurrManager	MyUnknownColumn_0
37	Yes	Travel_Rarely	1373	Research & Development	2	2	Other	1	2090	4	Male	92	2	1	Laboratory Technician	Single	0	2396	7	6	Y	Yes	15	3	2	80	0	0	0	0	0	0			
30	No	Travel_Rarely	1358	Research & Development	0	24	1	1	11	3	Male	67	3	1	Laboratory Technician	Divorced	1	2693	13335	1	Y	No	22	4	2	80	1	1	1	1	1	1			
36	No	Travel_Rarely	1299	Research & Development	0	27	3	1	13	3	Male	94	3	2	Healthcare Representative	Medical	1	5237	16577	2	Y	No	13	1	2	80	3	3	1	1	1	17			
31	No	Travel_Rarely	670	Research & Development	7	26	1	1	16	3	Male	31	3	1	Research Scientist	Divorced	1	2911	15170	1	Y	No	17	2	3	80	7	3	1	1	1	5			
34	No	Travel_Rarely	1346	Research & Development	2	19	2	2	18	2	Male	93	3	1	Laboratory Technician	Divorced	1	2661	8758	0	Y	No	11	3	4	80	3	4	1	1	1	3			
32	No	Travel_Rarely	334	Research & Development	2	5	2	2	21	1	Male	80	4	1	Research Scientist	Life Sciences	1	3298	15053	2	Y	Yes	12	3	5	80	2	2	1	1	1	7			
22	No	Non-Travel	1123	Research & Development	6	16	2	2	22	4	Male	96	4	1	Laboratory Technician	Medical	1	2935	7324	4	Male	96	16	4	5	80	4	4	1	1	1	22			

USE OF CLAUSES

1. HAVING

2. WHERE

mysql> select * FROM HR where age =36;																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
Age Attrition BusinessTravel DailyRate Department DistanceFromHome Education EducationField EmployeeCount EmployeeNumber Environ																
mentSatisfaction Gender HourlyRate JobInvolvement JobLevel JobRole Jobsatisfaction MaritalStatus MonthlyIncome MonthlyRate NumCom																
paniesWorked Over18 Overtime PercentSalaryHike PerformanceRating RelationshipSatisfaction StandardHours StockOptionLevel TotalWorkingYears TrainingTime																
sLastYear WorkLifeBalance YearsAtCompany YearsInCurrentRole YearsSinceLastPromotion YearsWithCurrManager MyUnknownColumn_0																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
36	No	Travel_Rarely	94	1299	Research & Development	27	3	Medical	1	13	5237	16577				
3	Male	1	94	3	Healthcare Representative	2	3	Married	1	1	88	2	17			
6	Y	1	94	13	7	7	7	88	7	1	7	27				
36	Yes	Travel_Rarely	82	1218	Sales	1	9	4	Life Sciences	1	1	3407	6986			
7	Male	1	82	2	1	Sales Representative	4	80	1	1	0	0	10			
4	Y	1	82	23	3	4	0	3	2	1	1	85				
36	No	Travel_Frequently	95	1195	Research & Development	11	3	Life Sciences	1	1	6499	22656				
2	Male	1	95	2	2	Manufacturing Director	3	88	2	1	2	22656				
1	Y	1	95	13	3	3	0	3	1	1	0	6				
36	Yes	Travel_Rarely	79	318	Research & Development	9	2	Medical	1	1	3388	21777				
0	Male	1	79	17	1	Research Scientist	3	88	0	1	1	2				
0	Y	1	79	0	0	0	0	0	0	1	0	2				
36	No	Travel_Rarely	84	216	Research & Development	6	3	Medical	1	1	4941	2819				
6	Y	1	84	20	2	Manufacturing Director	4	80	2	1	2	7				
0	Male	1	84	12	3	3	3	80	0	0	0	13				
36	No	Travel_Frequently	30	1480	Research & Development	3	3	Single	1	1	2088	15062				
4	Male	1	30	12	1	Laboratory Technician	3	80	2	1	0	0				
3	Y	1	30	7	7	7	7	2	1	1	0	13				
36	No	Travel_Rarely	62	1396	Research & Development	5	3	Life Sciences	1	1	5914	9945				
8	Male	1	62	16	3	2	3	80	2	1	0	0	16			
3	Y	1	62	11	3	3	4	7	3	1	1	373				
36	No	Travel_Rarely	13	1403	Research & Development	6	3	Life Sciences	1	1						

3. GROUP BY

```
mysql> select attrition, count(department) from HR group by attrition;
+-----+-----+
| attrition | count(department) |
+-----+-----+
| Yes      |        48          |
| No       |      251          |
+-----+-----+
2 rows in set (0.10 sec)
```

4. ORDER BY

Command Prompt - mysql -u root -p																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
Age Attrition BusinessTravel DailyRate Department DistanceFromHome Education EducationField EmployeeCount EmployeeNumber Environ																
mentSatisfaction Gender HourlyRate JobInvolvement JobLevel JobRole Jobsatisfaction MaritalStatus MonthlyIncome MonthlyRate NumCom																
paniesWorked Over18 Overtime PercentSalaryHike PerformanceRating RelationshipSatisfaction StandardHours StockOptionLevel TotalWorkingYears TrainingTime																
sLastYear WorkLifeBalance YearsAtCompany YearsInCurrentRole YearsSinceLastPromotion YearsWithCurrManager MyUnknownColumn_0																
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
18	Yes	Travel_Rarely	54	230	Research & Development	3	3	Life Sciences	1	1	405	25233				
3	Male	1	54	13	1	Laboratory Technician	3	80	0	1	1420	0				
1	Y	1	54	0	0	0	0	0	0	0	0	0				
19	Yes	Travel_Rarely	50	528	Sales	22	1	Marketing	1	1	167	26820				
4	Male	1	50	19	1	Sales Representative	4	80	3	1	1675	0				
1	Y	1	50	0	0	0	0	0	0	0	0	0				
19	Yes	Travel_Rarely	47	303	Research & Development	2	3	Life Sciences	1	1	243	9241				
1	Male	1	47	22	2	1	4	80	0	1	1102	1				
3	Y	1	47	0	0	0	0	0	0	0	0	0				
21	No	Travel_Rarely	96	391	Research & Development	15	3	Life Sciences	1	1	30	19281				
3	Male	1	96	14	3	1	Research Scientist	4	80	0	1	0				
1	Y	1	96	0	0	0	0	0	0	0	0	0				
21	No	Travel_Rarely	100	996	Research & Development	3	2	Medical	1	1	379	10531				
4	Male	1	100	17	3	1	Research Scientist	3	80	0	1	3230	7324			
4	Y	1	100	0	0	0	0	0	0	0	0	0				
22	No	Non-Travel	96	1123	Research & Development	16	4	Medical	1	1	22	2935				
4	Male	1	96	13	4	1	Laboratory Technician	3	80	0	2	1				
1	Y	1	96	0	0	0	0	0	0	0	0	0				
22	No	Travel_Rarely	100	594	Research & Development	2	3	Technical Degree	1	1	169	19299				
3	Male	1	100	14	3	1	Laboratory Technician	4	80	1	2523	3				
2	Y	1	100	2	1	1	2	1	1	1	217	11992				
22	No	Travel_Rarely	80	1256	Research & Development	19	3	Medical	1	1	2323	11992				
3	Male	1	80	0	0	0	0	4	Married	1	1	0				

5. LIMIT

6. OFFSET

7. LIKE

```

Command Prompt - mysql -u root -p
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Age | Attrition | BusinessTravel | DailyRate | Department | DistanceFromHome | Education | EducationField | EmployeeCount | EmployeeNumber | EnvironmentSatisfaction | Gender | HourlyRate | JobInvolvement | JobLevel | JobRole | Jobsatisfaction | MaritalStatus | MonthlyIncome | MonthlyRate | NumCompaniesWorked | Overtime | PercentSalaryHike | PerformanceRating | RelationshipSatisfaction | StandardHours | StockOptionLevel | TotalWorkingYears | TrainingTimesLastYear | WorkLifeBalance | YearsAtCompany | YearsInCurrentRole | YearsSinceLastPromotion | YearsWithCurrManager | MyUnknownColumn_0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 44 | Yes | Travel_Rarely | 1102 | Sales | 1 | 2 | Life Sciences | 1 | 19479 | 1 | 8 | Y
| 2 | Female | 94 | 11 | 2 | Sales Executive | 1 | 4 | Single | 5993 | 0 | 8 | 0 |
| 1 | Yes | 6 | 4 | 3 | 0 | 5 | 88 | 0 | 5 | 1 | 1 | 1 |
| 44 | No | Travel_Rarely | 1219 | Sales | 2 | 4 | Manager | 2 | 15427 | 1 | 23 | 2 | Y
| 1 | Female | 78 | 2 | 4 | Manager | 3 | 88 | 0 | 7 | 2 | 2021 | 3 | 3 |
| 1 | No | 16 | 8 | 3 | 3 | 7 | 80 | 0 | 18 | 1 | 31 | 3 | 1 |
| 36 | Yes | Travel_Rarely | 1218 | Sales | 9 | 4 | Sales Representative | 1 | 3407 | 1 | 27 | 4 | Y
| 3 | Male | 82 | 2 | 1 | Sales Representative | 4 | 80 | 0 | 10 | 1 | 6986 | 7 | 4 |
| 1 | No | 23 | 3 | 2 | Sales Executive | 3 | 80 | 0 | 1 | 1 | 18 | 4 | 1 |
| 42 | No | Travel_Rarely | 691 | Sales | 8 | 2 | Sales Executive | 4 | 6825 | 1 | 35 | 4 | Marketing
| 3 | Male | 48 | 3 | 2 | Sales Executive | 3 | 80 | 1 | 10 | 1 | 21173 | 0 | 2 | |
| 1 | No | 11 | 7 | 3 | 4 | 2 | Married | 1 | 1 | 1 | 1 | 1 | 0 | Y |
| 3 | 9 | 7 | 4 | 2 | Sales Executive | 4 | 80 | 1 | 2 | 1 | 1 | 2 | 1 |
| 44 | No | Travel_Rarely | 705 | Sales | 2 | 5 | Manager | 2 | 1 | 18947 | 1 | 38 | 4 | Marketing
| 2 | Female | 83 | 3 | 5 | Manager | 3 | 80 | 0 | 22 | 1 | 22822 | 3 | 2 |
| 1 | No | 12 | 3 | 3 | 4 | 1 | 1 | 0 | 22 | 1 | 22 | 2 | 1 |
| 2 | 2 | 2 | 2 | 2 | Sales Representative | 5 | 4 | 2086 | 1 | 42 | 4 | Married
| 39 | Yes | Travel_Rarely | 895 | Sales | 5 | 3 | 2 | Sales Representative | 3 | 3335 | 1 | 3 | Y
| 4 | Male | 56 | 3 | 2 | Sales Representative | 3 | 80 | 1 | 19 | 1 | 1 | 6 | 1 |
| 1 | No | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 | Yes | Travel_Rarely | 869 | Sales | 3 | 2 | Marketing | 3 | 2683 | 1 | 47 | 3 | Married
| 1 | Male | 86 | 2 | 1 | Sales Representative | 3 | 3 | 3810 | 1 | 1 | 1 | Y |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

JOINS

1. CROSS JOIN

```

mysql> SELECT COUNT(*) AS TotalCombinations
    -> FROM HR
    -> CROSS JOIN department;
+-----+
| TotalCombinations |
+-----+
| 0 |
+-----+
1 row in set (0.96 sec)

```

CASE(IF ELSE)

```

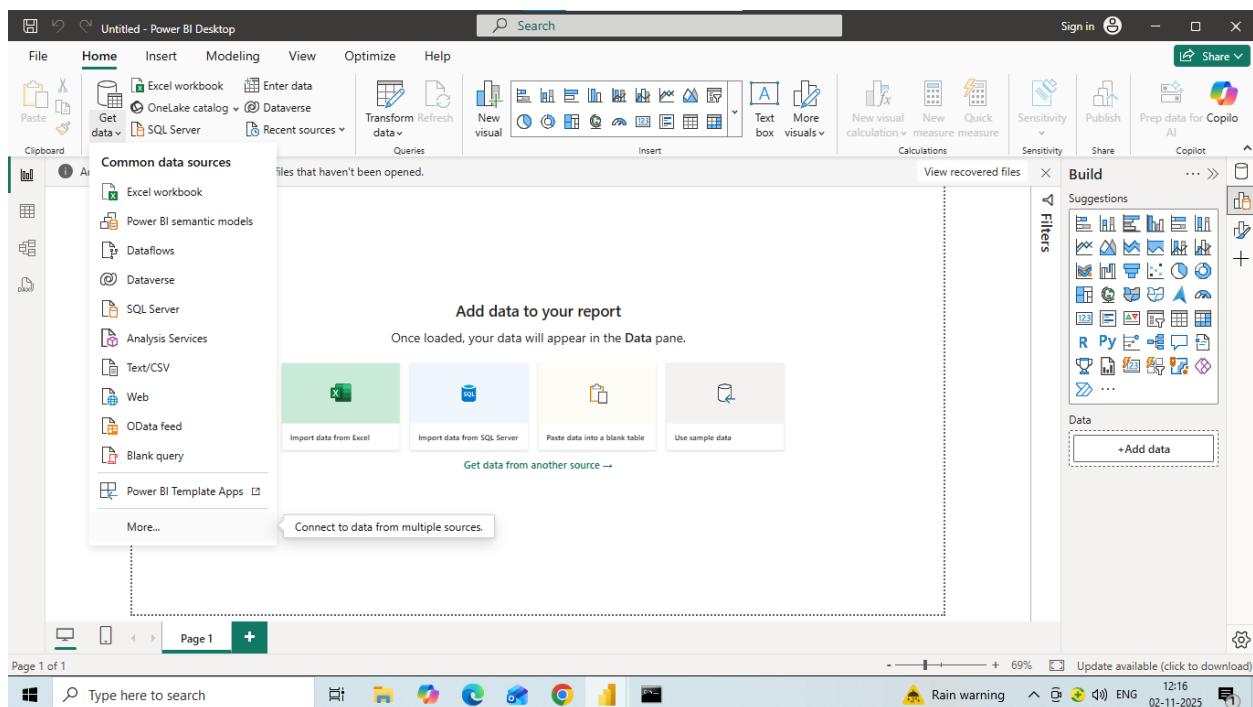
Command Prompt - mysql -u root -p
1 row in set (0.96 sec)

mysql> SELECT
    -> EmployeeNumber,
    -> Department,
    -> MonthlyIncome,
    -> IF(MonthlyIncome > 10000, 'High Income', 'Low Income') AS IncomeLevel
    -> FROM HR;
+-----+-----+-----+-----+
| EmployeeNumber | Department | MonthlyIncome | IncomeLevel |
+-----+-----+-----+-----+
| 1 | Sales | 5993 | Low Income |
| 2 | Research & Development | 5130 | Low Income |
| 4 | Research & Development | 2090 | Low Income |
| 5 | Research & Development | 2909 | Low Income |
| 7 | Research & Development | 3468 | Low Income |
| 8 | Research & Development | 3068 | Low Income |
| 10 | Research & Development | 2670 | Low Income |
| 11 | Research & Development | 2693 | Low Income |
| 12 | Research & Development | 9526 | Low Income |
| 13 | Research & Development | 5237 | Low Income |
| 14 | Research & Development | 2426 | Low Income |
| 15 | Research & Development | 4193 | Low Income |
| 16 | Research & Development | 2911 | Low Income |
| 18 | Research & Development | 2661 | Low Income |
| 19 | Research & Development | 2028 | Low Income |
| 20 | Research & Development | 9980 | Low Income |
| 21 | Research & Development | 3298 | Low Income |
| 22 | Research & Development | 2935 | Low Income |
| 23 | Sales | 15427 | High Income |
| 24 | Research & Development | 3944 | Low Income |
| 26 | Research & Development | 4011 | Low Income |
| 27 | Sales | 3407 | Low Income |
| 28 | Research & Development | 11994 | High Income |
| 30 | Research & Development | 1232 | Low Income |
| 31 | Research & Development | 2960 | Low Income |
| 32 | Research & Development | 19094 | High Income |
| 33 | Research & Development | 3919 | Low Income |
| 35 | Sales | 6825 | Low Income |
| 36 | Research & Development | 10248 | High Income |
| 38 | Sales | 18947 | High Income |
| 39 | Research & Development | 2496 | Low Income |
| 40 | Research & Development | 6465 | Low Income |
| 41 | Research & Development | 2206 | Low Income |
+-----+-----+-----+-----+

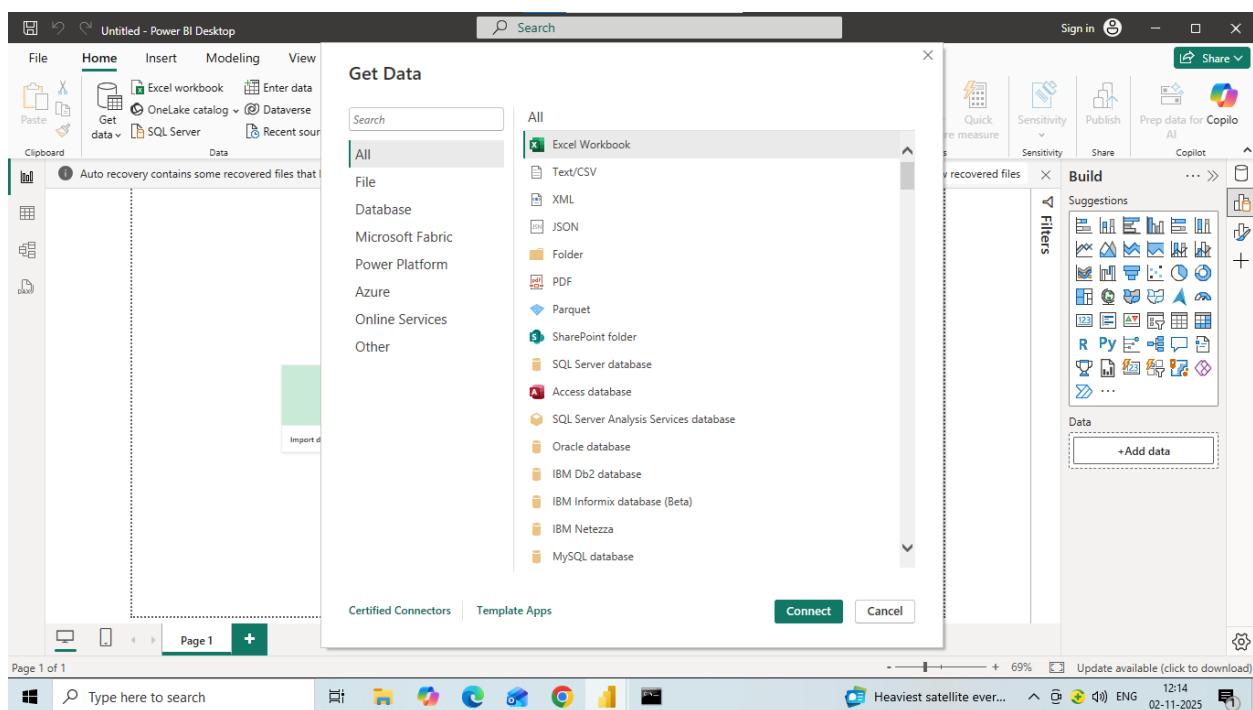
```

POWER BI

GET DATA FROM EXCEL



CONNECT WITH DATA



TRANSFORM DATA

CLEANING DATA FROM AFTER TRANSFORM THE DATA.

REMOVE ERROR :-

REMOVE COLUMN

Untitled - Power Query Editor

Queries [3]

- Sheet1
- Table 1 (Sheet1)
- Sheet1 (2)

Column 36 selected: = Table.ReplaceValue(#"Replaced Errors",null,0,ReplaceValues,{"Column37"})

	YearsInCurrentRole	YearsSinceLastPromotion	YearsWithCurrManager	Column36
1	6	4	0	5
2	10	7	1	7
3	0	0	0	0
4	8	7	3	0
5	2	2	2	2
6	7	7	3	6
7	1	0	0	0
8	1	0	0	0
9	9	7	1	8
10	7	7	7	7
11	5	4	0	3
12	9	5	0	8
13	5	2	4	3
14	2	2	1	2
15	4	2	0	3
16	10	9	8	8
17	6	2	0	5
18	1	0	0	0
19	25	8	3	7
20	3	2	1	2
21	4	2	1	3
22	5	3	0	3
23	12	6	2	11
24				null 0

37 COLUMNS, 299 ROWS Column profiling based on top 1000 rows

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Type here to search

Top Stories 12:26 ENG 02-11-2025

Properties: Name Sheet1 (2)

Applied Steps: Replaced Value

TRIM

Untitled - Power Query Editor

Queries [3]

- Sheet1
- Table 1 (Sheet1)
- Sheet1 (2)

Column 36 selected: = Table.RemoveColumns(#"Replaced Value",{"Column36"})

	BusinessTravel	DailyRate	Department	Education	EducationField
1	larely	1102	Sales	1	2
2	reently	279	Research & Development	Life Sciences	Life Sciences
3	larely	1373	Research & Development	Other	Other
4	reently	1392	Research & Development	Life Sciences	Life Sciences
5	larely	591	Research & Development	Medical	Medical
6	reently	1005	Research & Development	Life Sciences	Life Sciences
7	larely	1324	Research & Development	Medical	Medical
8	larely	1358	Research & Development	Life Sciences	Life Sciences
9	reently	216	Research & Development	Life Sciences	Life Sciences
10	larely	1299	Research & Development	Medical	Medical
11	larely	809	Research & Development	Life Sciences	Life Sciences
12	larely	153	Research & Development	Other	Other
13	larely	670	Research & Development	Life Sciences	Life Sciences
14	larely	1346	Research & Development	Medical	Medical
15	larely	103	Research & Development	Life Sciences	Life Sciences
16	larely	1389	Research & Development	Medical	Medical
17	larely	334	Research & Development	Life Sciences	Life Sciences
18	vel	1123	Research & Development	Other	Other
19	larely	2219	Sales	Life Sciences	Life Sciences
20	larely	371	Research & Development	Medical	Medical
21	vel	673	Research & Development	Life Sciences	Life Sciences
22	larely	1218	Sales	Medical	Medical
23	larely	419	Research & Development	Life Sciences	Life Sciences
24					

36 COLUMNS, 299 ROWS Column profiling based on top 1000 rows

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Type here to search

Very humid 12:29 ENG 02-11-2025

Properties: Name Sheet1 (2)

Applied Steps: Removed Columns

REMOVE DATA

The screenshot shows the Microsoft Power Query Editor interface. A context menu is open over the 'Age' column in the 'Sheet1' query. The menu includes options like Copy, Remove, Remove Other Columns, Duplicate Column, Add Column From Examples..., Remove Duplicates, Remove Errors, Change Type, Transform, Replace Values..., Replace Errors..., Group By..., Fill, Unpivot Columns, Unpivot Other Columns, Unpivot Only Selected Columns, Rename..., Move, Drill Down, and Add as New Query. The 'Change Type' option is highlighted. The main workspace displays a table with columns: Age, BusinessTravel, DailyRate, Department, and DistanceFromHome. The 'BusinessTravel' column has values like 'Rarely', 'Frequently', and 'Never'. The 'DailyRate' column has numerical values. The 'Department' column has values like 'Research & Development' and 'Sales'. The 'DistanceFromHome' column has numerical values.

REPALCE VALUE

The screenshot shows the Microsoft Power Query Editor interface. The ribbon menu at the top includes File, Home, Transform, Add Column, View, Tools, Help, and various data manipulation tools like Refresh, Preview, Properties, Advanced Editor, and Manage. The left sidebar lists 'Queries [3]' with 'Sheet1' and 'Table 1 (Sheet1)' selected. A context menu for 'Table 1 (Sheet1)' is open, showing options like 'Close & Apply', 'New Source', 'Recent Sources', 'Enter Data', 'Data source settings', 'Manage Parameters', 'Refresh', 'Preview', 'Properties', 'Advanced Editor', 'Query', 'Choose Columns', 'Remove Columns', 'Keep Rows', 'Remove Rows', 'Sort', 'Split Column', 'Group By', 'Replace Values', and 'Transform'. The main area displays a table with columns labeled 'YearsInCurrentRole', 'YearsSinceLastPromotion', 'YearsWithCurrManager', and 'Column36'. A 'Replace Values' dialog box is centered over the table, prompting to replace 'null' with another value. The right side features a 'Query Settings' pane with tabs for 'PROPERTIES' (Name: Sheet1 (2), All Properties) and 'APPLIED STEPS' (Source, Navigation, Promoted Headers, Changed Type, Replaced Errors, Replaced Value). The bottom status bar indicates '37 COLUMNS, 299 ROWS' and 'PREVIEW DOWNLOADED AT 12:18 02-11-2025'.

UPERCASE VALUE

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Data Data source settings Manage Parameters Refresh Preview Advanced Editor

Queries [3]

Sheet1 Table 1 (Sheet1) Sheet1 (2)

Age Attrition Department DistancefromOffice

1 41 Yes Sales 1102 Sales

2 49 No Research & Development 279 Research & Development

3 37 Yes Research & Development 1373 Research & Development

4 33 No Research & Development 1392 Research & Development

5 27 No Research & Development 591 Research & Development

6 32 No Research & Development 1005 Research & Development

7 59 No Research & Development 1324 Research & Development

8 30 No Research & Development 1358 Research & Development

9 38 No Research & Development 1123 Research & Development

10 36 No Research & Development 1219 Sales

11 35 No Research & Development 371 Research & Development

12 29 No Research & Development 673 Research & Development

13 31 No Research & Development 1218 Sales

14 34 No Research & Development 419 Research & Development

15 28 Yes Research & Development

16 29 No Research & Development

17 32 No Research & Development

18 22 No Research & Development

19 53 No Research & Development

20 38 No Research & Development

21 24 No Research & Development

22 36 Yes Research & Development

23 34 No Research & Development

24

36 COLUMNS, 299 ROWS Column profiling based on top 1000 rows

Copy Remove Remove Other Columns Duplicate Column Add Column From Examples...

Remove Duplicates Remove Errors Change Type Transform

Replace Values... Replace Errors... Split Column Capitalize Each Word Trim Clean Length JSON XML

Rename... Move Drill Down Add as New Query

Properties Merge Queries Append Queries Combine Files Combine AI Insights

Query Settings

PROPERTIES

Name: Sheet1 (2)

All Properties

APPLIED STEPS

Source Navigation Promoted Headers Changed Type Replaced Errors Replaced Value Removed Columns Trimmed Text Split Column by Delimiter

Removed Columns1

PREVIEW DOWNLOADED AT 12:18 Rain warning 12:34 02-11-2025

DASHBORD

power • Last saved: Today at 2:13 PM (Power BI Project) ▾

File Home Insert Modeling View Optimize Help

Search

Sign in

Themes

Page view ▾ Mobile layout Mobile

Visual_Gridline_Show Snap to grid Lock objects

Filters Page options

Data Bookmarks Sync slicers

Build Selection Page visuals

Format Performance analyzer

Show panes

HR ANALYTICS

2K Sum of YearsAtCompany

3415

254K Sum of DailyRate

Sum of HourlyRate and Sum of StandardHours

3K Sum of TotalWorkingYears

Sum of StandardHours and Sum of HourlyRate

Sum of Age by Attrition

Sum of Education by EducationField

Sum of EmployeeCount by JobRole

Page 1 +

Page 1 of 1

CONCLUSION

The HR Analytics project provides valuable insights into employee behavior, performance, and attrition patterns through the integration of MySQL and Power BI.

By systematically analyzing employee data, the project helps HR teams identify key factors affecting retention, satisfaction, and productivity.

The use of interactive dashboards in Power BI enables data visualization that supports real-time decision-making and highlights problem areas such as high attrition departments or low engagement roles.

Overall, this project demonstrates how data-driven HR management can improve organizational efficiency, reduce turnover, and enhance employee satisfaction.

It emphasizes the importance of analytics in shaping strategic HR decisions, thereby contributing to the overall growth and success of the organization.