

**A  
REPORT  
ON  
MEDICAL-DATA ANALYSIS**

PERFORMED BY

**IBAD ASAD QUADRI**

COURSE NAME

**DATA ANALYTICS**

GUIDED BY

**SARJIL SATWARE**(MSC-IT & SEPCIALIZATION IN  
DATA SCIENCE)

DATE OF SUBIMATION:-12/08/205

DECLARATION

This is to declare that **Mr.Ibad Asad Quadri** have successfully completed their project titled."**DATA ANALYTICS ON MEDICAL DATA ANALYSIS**" as part of academic curriculum.The project complete by under the valuable guidance of **Mr.SARJIL SATWARE**(MSC-IT & SEPCIALIZATION IN DATA SCIENCE)

**SUBMITTED BY**

**SIGUNATURE**

### **AIM:**

"To analyze Electronic Health Records(EHR) using data analytics techniques in order to identify pattern and trends in patient readmission rates."

### **OBJECTIVES:**

1. To collect and processors electronic health records(EHR) data for analysis.
2. To identify key features influencing patent readmission.
3. To apply statically and machine learning to predict the

likelihood of readmission.

4. To visualize patterns and trends in readmission using
5. To provide data driven recommendation for reducing readmission rates.

## **KEYWORDS:**

- Hospital Readmission
- Electronic Health Records(EHR)
- Predictive Analytics
- Healthcare Optimization
- Logistic Regression
- Data Visualization

## **Tools/software Used:**

- **For DATA RETRIVAL:**

MYSQL COMMUNITY SERVER & MYSQL WORK BENCH.

- **FOR DATA IMPORT & EXPORT:**

EXCEL

- **FOR DATA VISUALIZATION:**

PowerBi

# PROCEDURE:

## TAKING OUR CREATED DATABASE IN CUSTODY FOR MAKING CHANGES:

```
mysql> use Medical;
Database changed
mysql>
```

## CREATING THE TABLE SHOWING THE CERATED TABLES AND STRUCTURE OF THE TABLE:

```
mysql> create table Medical(Patient_id int,Name varchar(20),Gender varchar(20),D_O_B varchar(20),Contact varchar(15),State varchar(40),Country varchar(20),Dignosis varchar(20),Cost_Per_Dignosis decimal(10,0),Hospital_Name varchar(20),Department varchar(20),Admission_Date varchar(20),Total_Amount_Paid int,Recovery_Status varchar(20),Attended_Patient int,Mortality int,Doctor_id int,Doctor_Name varchar(20),Medicine_Prescribed varchar(20),Med_Price decimal(10,0),Healed_Patient int);
Query OK, 0 rows affected (0.43 sec)
```

```
mysql> desc Medical;
```

Field	Type	Null	Key	Default	Extra
Patient_id	int	YES		NULL	
Name	varchar(20)	YES		NULL	
Gender	varchar(20)	YES		NULL	
D_O_B	varchar(20)	YES		NULL	
Contact	varchar(15)	YES		NULL	
State	varchar(40)	YES		NULL	
Country	varchar(20)	YES		NULL	
Dignosis	varchar(20)	YES		NULL	
Cost_Per_Dignosis	decimal(10,0)	YES		NULL	
Hospital_Name	varchar(20)	YES		NULL	
Department	varchar(20)	YES		NULL	
Admission_Date	varchar(20)	YES		NULL	
Total_Amount_Paid	int	YES		NULL	
Recovery_Status	varchar(20)	YES		NULL	
Attended_Patient	int	YES		NULL	
Mortality	int	YES		NULL	
Doctor_id	int	YES		NULL	
Doctor_Name	varchar(20)	YES		NULL	
Medicine_Prescribed	varchar(20)	YES		NULL	
Med_Price	decimal(10,0)	YES		NULL	
Healed_Patient	int	YES		NULL	

```
21 rows in set (0.01 sec)
```

## INSERTING THE DATA IN THE TABLE:

```
mysql> INSERT INTO Medical ( Patient_id, Name, Gender, D_O_B, Contact, State, Country, Dignosis, Cost_Per_Dignosis, Hospital_Name, Department, Admission_Date, Total_Amount_Paid, Recovery_Status, Attended_Patient, Mortality, Doctor_id, Doctor_Name, Medicine_Prescribed, Med_Price, Healed_Patient, Blood_Group) VALUES (1, 'John Doe', 'Male', '1998-05-10', '1234567890', 'Karnataka', 'India', 'Flu', 500.00, 'Apollo', 'General', '2023-07-01', 1000, 'Recovered', 1, 0, 101, 'Dr. Smith', 'Paracetamol', 100.00, 1, 'O+');
Query OK, 1 row affected (0.17 sec)
```

```
mysql> INSERT INTO Medical ( Patient_id, Name, Gender, D_O_B, Contact, State, Country, Dignosis, Cost_Per_Dignosis, Hospital_Name, Department, Admission_Date, Total_Amount_Paid, Recovery_Status, Attended_Patient, Mortality, Doctor_id, Doctor_Name, Medicine_Prescribed, Med_Price, Healed_Patient, Blood_Group) VALUES(2, 'Jane Smith', 'Female', '1985-11-23', '9876543210', 'Delhi', 'India', 'Covid-19', 1000.00, 'AIIMS', 'Emergency', '2023-06-25', 3000, 'Recovered', 1, 0, 102, 'Dr. Kumar', 'Remdesivir', 500.00, 1, 'A+');
Query OK, 1 row affected (0.10 sec)
```

```
mysql> INSERT INTO Medical ( Patient_id, Name, Gender, D_O_B, Contact, State, Country, Dignosis, Cost_Per_Dignosis, Hospital_Name, Department, Admission_Date, Total_Amount_Paid, Recovery_Status, Attended_Patient, Mortality, Doctor_id, Doctor_Name, Medicine_Prescribed, Med_Price, Healed_Patient, Blood_Group) VALUES(3, 'Raj Patel', 'Male', '1993-03-15', '0909090909', 'Gujarat', 'India', 'Fracture', 1500.00, 'Civil Hospital', 'Ortho', '2023-05-20', 4500, 'Recovering', 1, 0, 103, 'Dr. Mehta', 'Painkillers', 300.00, 0, 'B+');
Query OK, 1 row affected (0.12 sec)
```

```
mysql> INSERT INTO Medical ( Patient_id, Name, Gender, D_O_B, Contact, State, Country, Dignosis, Cost_Per_Dignosis, Hospital_Name, Department, Admission_Date, Total_Amount_Paid, Recovery_Status, Attended_Patient, Mortality, Doctor_id, Doctor_Name, Medicine_Prescribed, Med_Price, Healed_Patient, Blood_Group) VALUES(4, 'Meena Verma', 'Female', '1978-07-10', '0808080808', 'UP', 'India', 'Diabetes', 1200.00, 'Fortis', 'Endocrine', '2023-04-10', 4000, 'Stable', 1, 0, 104, 'Dr. Sharma', 'Insulin', 200.00, 0, 'AB+');
Query OK, 1 row affected (0.08 sec)
```

```
mysql> INSERT INTO Medical ( Patient_id, Name, Gender, D_O_B, Contact, State, Country, Dignosis, Cost_Per_Dignosis, Hospital_Name, Department, Admission_Date, Total_Amount_Paid, Recovery_Status, Attended_Patient, Mortality, Doctor_id, Doctor_Name, Medicine_Prescribed, Med_Price, Healed_Patient, Blood_Group) VALUES(5, 'Ali Khan', 'Male', '1982-12-01', '7070707070', 'Maharashtra', 'India', 'Asthma', 900.00, 'Lilavati', 'Respiratory', '2023-06-10', 3200, 'Recovered', 1, 0, 105, 'Dr. Ansari', 'Inhaler', 150.00, 1, 'B-');
Query OK, 1 row affected (0.09 sec)
```

```
mysql> INSERT INTO Medical ( Patient_id, Name, Gender, D_O_B, Contact, State, Country, Dignosis, Cost_Per_Dignosis, Hospital_Name, Department, Admission_Date, Total_Amount_Paid, Recovery_Status, Attended_Patient, Mortality, Doctor_id, Doctor_Name, Medicine_Prescribed, Med_Price, Healed_Patient, Blood_Group) VALUES(6, 'Riya Sen', 'Female', '1995-08-08', '0606060606', 'Bengal', 'India', 'Migraine', 500.00, 'Apollo', 'Neuro', '2023-06-01', 2500, 'Recovered', 1, 0, 106, 'Dr. Das', 'Painkillers', 1
```

## DISPLAYING THE INSERTED VALUE TABLE FORMAT:

Patient_id	Name	Gender	D_O_B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group
1	Asas	male	0.000502260170768458	369874525	Maharashtra	India	Hypertension	5000	City Hospital	Cardiology	0.	500	Stable	500	0	501	Safwan Shaikh	Inhibitors	500	0	008888888888888888
2	Saad	male	6/9/2000	7894561230	Dehli	India	Stoke	4500	Park Hospital	Neurology	7/	4800	Partially Recovered	600	100	502	Lalit Mehta	Alteplase	150	150	1/2025
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	5000	City Hospital	General	20	15000	Recovered	1	0	101	Dr. Smith	Paracetamol	100	100	15-06-15
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	20	1000	Recovered	1	0	101	Dr. Smith	Paracetamol	100	100	01-07-23
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	20	3000	Recovered	1	0	102	Dr. Kumar	Remdesivir	500	500	25-06-25
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	20	4500	Recovering	1	0	103	Dr. Mehta	Painkillers	300	300	23-05-20
4	Meena Verma	Female	1978-07-10	8080808080	UP	India	Diabetes	1200	Fortis	Endocrine	20	4000	Stable	1	0	104	Dr. Sharma	Insulin	200	200	23-04-18
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	20	3200	Recovered	1	0	105	Dr. Ansari	Inhaler	150	150	23-06-10
6	Riya Sen	Female	1995-08-08	6060606060	Bengal	India	Migraine	500	Apollo	Neuro	20	2500	Recovered	1	0	106	Dr. Das	Painkillers	100	100	23-06-01
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	20	10000	Critical	1	0	107	Dr. Menon	Beta Blockers	700	700	23-07-01
8	Pooja Nair	Female	1998-03-30	4040404040	Kerala	India	Fracture	1300	Amrita	Ortho	20	3500	Recovered	1	0	108	Dr. Varghese	Painkillers	200	200	23-05-15
9	Amit Joshi	Male	1980-01-05	3030303030	MP	India	Cancer	10000	Tata Memorial	Oncology	20	50000	Under Treatment	1	0	109	Dr. Gupta	Chemotherapy	5000	5000	23-03-01
10	Nisha Kapoor	Female	1992-09-14	2020202020	Punjab	India	Cold	300	Fortis	General	20	0	Stable	1	0	110	Dr. Singh	Antibiotics	100	100	01-08-23

## USE OF MYSQL WORKBENCH:

### MAKING SURE THAT OUR CREATED DATA IS DISPALYED IN WORKBENCH

The screenshot displays the MySQL Workbench interface. The SQL editor contains the following query:

```

1. use Medical;
2. desc Medical;
3. select * from Medical;
4.

```

The Results tab shows the output of the query, displaying a table with columns: Patient\_id, Name, Gender, D\_O\_B, Contact, State, and Country. The data is as follows:

Patient_id	Name	Gender	D_O_B	Contact	State	Country
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India
4	Meena Verma	Female	1978-07-10	8080808080	UP	India
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India

The bottom panel shows the Action Output and Message logs, indicating that the query was executed successfully and 22 rows were returned.

### UPDATING DOCTORS NAMES:

```
mysql> update Medical set Doctor_Name='lalit Mehta' where Patient_id=3;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update Medical set Doctor_Name='Amol Joshi' where Patient_id=4;
Query OK, 1 row affected (0.06 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update Medical set Doctor_Name='Abdul Qadir' where Patient_id=5;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from Medical;
```

Patient_id	Name	Gender	D_O_B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	lalit Mehta	Painkillers	300	0	B+
4	Meena Verma	Female	1978-07-10	8080808080	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-

## ADDING EXTRA COLUMN IN EXISTING TABLE:

```
mysql> alter table Medical add column Med_Price_Status varchar(15);
Query OK, 0 rows affected (2.31 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc Medical;
```

Field	Type	Null	Key	Default	Extra
Patient_id	int	YES		NULL	
Name	varchar(20)	YES		NULL	
Gender	varchar(20)	YES		NULL	
D_O_B	varchar(20)	YES		NULL	
Contact	varchar(15)	YES		NULL	
State	varchar(40)	YES		NULL	
Country	varchar(20)	YES		NULL	
Dignosis	varchar(20)	YES		NULL	
Cost_Per_Dignosis	decimal(10,0)	YES		NULL	
Hospital_Name	varchar(20)	YES		NULL	
Department	varchar(20)	YES		NULL	
Admission_Date	varchar(20)	YES		NULL	
Total_Amount_Paid	int	YES		NULL	
Recovery_Status	varchar(20)	YES		NULL	
Attended_Patient	int	YES		NULL	
Mortality	int	YES		NULL	
Doctor_id	int	YES		NULL	
Doctor_Name	varchar(20)	YES		NULL	
Medicine_Prescribed	varchar(20)	YES		NULL	
Med_Price	decimal(10,0)	YES		NULL	
Healed_Patient	int	YES		NULL	
Blood_Group	varchar(5)	YES		NULL	
Med_Price_Status	varchar(15)	YES		NULL	

23 rows in set (0.01 sec)

## USE OF OPREATORS:



## 1)EQAUL TO(=)

```
mysql> select * from Medical where Patient_id=12;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
12	Sunita Jain	Female	1986-12-12	9999999999	Rajasthan	India	Fever	400	Sawai Mansingh	General	2023-06-15	1000	Recovered	1	0	112	Dr. Bhargav	Paracetamol	50	1	B-	NULL

```
1 row in set (0.00 sec)
```

## 2)NOT EQUAL TO(!=)

```
mysql> select * from Medical where Patient_id!=2;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1998-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	Lalit Mehta	Painkillers	300	0	B+	NULL
4	Meena Verma	Female	1978-07-10	8888888888	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+	NULL
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NULL
6	Riya Sen	Female	1995-08-08	6060606060	Bengal	India	Migraine	500	Apollo	Neuro	2023-06-01	2500	Recovered	1	0	106	Dr. Das	Painkillers	100	1	O-	NULL
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL
8	Pooja Nair	Female	1998-03-30	4040404040	Kerala	India	Fracture	1300	Amrita	Ortho	2023-05-15	3500	Recovered	1	0	108	Dr. Varghese	Painkillers	200	1	B+	NULL
9	Amit Joshi	Male	1980-01-05	3030303030	MP	India	Cancer	10000	Tata Memorial	Onco	2023-03-01	50000	Under Treatment	1	0	109	Dr. Gupta	Chemotherapy	5000	0	AB-	NULL
10	Nisha Kapoor	Female	1992-09-14	2020202020	Punjab	India	Cold	300	Fortis	General	2023-06-11	1000	Recovered	1	0	110	Dr. Kaur	Cetirizine	50	1	O+	NULL
11	Rahul Dev	Male	1990-04-20	1111111111	Delhi	India	Typhoid	700	Max	General	2023-06-22	1800	Recovered	1	0	111	Dr. Arora	Antibiotics	200	1	A+	NULL
12	Sunita Jain	Female	1986-12-12	9999999999	Rajasthan	India	Fever	400	Sawai Mansingh	General	2023-06-15	1000	Recovered	1	0	112	Dr. Bhargav	Paracetamol	50	1	B-	NULL

## 3)GREATER THAN(>)

```
mysql> select * from medical where Med_Price>500;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL
9	Amit Joshi	Male	1980-01-05	3030303030	MP	India	Cancer	10000	Tata Memorial	Onco	2023-03-01	50000	Under Treatment	1	0	109	Dr. Gupta	Chemotherapy	5000	0	AB-	NULL

```
2 rows in set (0.07 sec)
```

## 4)LESSTHAN(<)

```
mysql> select * from medical where Med Price<700;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NUL
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+	NUL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	lalit Mehta	Painkillers	300	0	B+	NUL
4	Meena Verma	Female	1978-07-10	8080808080	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+	NUL
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NUL
6	Riya Sen	Female	1995-08-08	6060606060	Bengal	India	Migraine	500	Apollo	Neuro	2023-06-01	2500	Recovered	1	0	106	Dr. Das	Painkillers	100	1	O-	NUL
8	Pooja Nair	Female	1998-03-30	4040404040	Kerala	India	Fracture	1300	Amrita	Ortho	2023-05-15	3500	Recovered	1	0	108	Dr. Varghese	Painkillers	200	1	B+	NUL
10	Nisha Kapoor	Female	1992-09-14	2020202020	Punjab	India	Cold	300	Fortis	General	2023-06-11	1000	Recovered	1	0	110	Dr. Kaur	Cetirizine	50	1	O+	NUL
11	Rahul Dev	Male	1990-04-20	1111111111	Delhi	India	Typhoid	700	Max	General	2023-06-22	1800	Recovered	1	0	111	Dr. Arora	Antibiotics	200	1	A+	NUL

## 5)GREATER THAN EQUAL TO(>=)

```
mysql> select * from Medical where Med_Price>=700;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL
9	Amit Joshi	Male	1980-01-05	3030303030	MP	India	Cancer	10000	Tata Memorial	Onco	2023-03-01	50000	Under Treatment	1	0	109	Dr. Gupta	Chemotherapy	5000	0	AB-	NULL

rows in set (0.00 sec)

## 6)LESS THAN EQUAL TO(<=)

```
mysql> select * from Medical where Med_Price<=800;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+	NULL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	lalit Mehta	Painkillers	300	0	B+	NULL
4	Meena Verma	Female	1978-07-10	8080808080	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+	NULL

## 7)NULL

```
mysql> select * from Medical where Name is null;
Empty set (0.00 sec)

mysql>
```

## 8)NOT NULL



```
mysql> select * from Medical where Name is not null;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+	NULL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	Lalit Mehta	Painkillers	300	0	B+	NULL
4	Meena Verma	Female	1978-07-10	8080808080	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+	NULL
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NULL
6	Riya Sen	Female	1995-08-08	6060606060	Bengal	India	Migraine	500	Apollo	Neuro	2023-06-01	2500	Recovered	1	0	106	Dr. Das	Painkillers	100	1	O-	NULL
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL
8	Pooja Nair	Female	1998-03-30	4040404040	Kerala	India	Fracture	1300	Amrita	Ortho	2023-05-15	3500	Recovered	1	0	108	Dr. Varghese	Painkillers	200	1	B+	NULL
9	Amit Joshi	Male	1980-01-05	3030303030	MP	India	Cancer	10000	Tata Memorial	Onco	2023-03-01											

## 9)AND

```
mysql> select * from Medical where Blood_Group = "A+" and Gender = "male";
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
11	Rahul Dev	Male	1990-04-20	1111111111	Delhi	India	Typhoid	700	Max	General	2023-06-22	1800	Recovered	1	0	111	Dr. Arora	Antibiotics	200	1	A+	NULL

## 10)OR

```
mysql> select * from Medical where Blood_Group = "O+" or Gender = "male";
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	Lalit Mehta	Painkillers	300	0	B+	NULL
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NULL
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL
9	Amit Joshi	Male	1980-01-05	3030303030	MP	India	Cancer	10000	Tata Memorial	Onco	2023-03-01	50000	Under Treatment	1	0	109	Dr. Gupta	Chemotherapy	5000	0	AB-	NULL
10	Nisha Kapoor	Female	1992-09-14	2020202020	Punjab	India	Cold	300	Fortis	General	2023-06-11	1000	Recovered	1	0	110	Dr. Kaur	Cetirizine	50	1	O+	NULL
11	Rahul Dev	Male	1990-04-20	1111111111	Delhi	India	Typhoid	700	Max	General	2023-06-22	1800	Recovered	1	0	111	Dr. Arora	Antibiotics	200	1	A+	NULL
13	Vikram Thakur	Male	1991-06-06	8888888888	Haryana	India	Malaria	600	Civil Hospital	General	2023-06-18	1500	Recovered	1	0	113	Dr. Chauhan	Antimalarial	300	1	AB+	NULL
15	Naveen Jain	Male	1988-05-21	6666666666	Bihar	India	Ulcer	1200	Paras	Gastro	2023-06-20	3000	Recovering	1	0	115	Dr. Roy	Antacid	200	0	B+	NULL

## 11) BETWEEN

```
mysql> select * from Medical where Med_Price between 500 and 700;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+	NULL
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL

2 rows in set (0.02 sec)

## 12) NOT BETWEEN

```
mysql> select * from Medical where Med_Price not between 1000 and 5000;
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+	NULL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	lalit Mehta	Painkillers	300	0	B+	NULL
4	Meena Verma	Female	1978-07-10	8080808080	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+	NULL
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NULL
6	Riya Sen	Female	1995-08-08	6060606060	Bengal	India	Migraine	500	Apollo	Neuro	2023-06-01	2500	Recovered	1	0	106	Dr. Das	Painkillers	100	1	O-	NULL
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL
8	Pooja Nair	Female	1998-03-30	4040404040	Kerala	India	Fracture	1300	Amrita	Ortho	2023-05-15	3500	Recovered	1	0	108	Dr. Varghese	Painkillers	200	1	B+	NULL
10	Nisha Kapoor	Female	1992-09-14	2020202020	Punjab	India	Cold	300	Fortis	General	2023-06-11	1000	Recovered	1	0	110	Dr. Kaur	Cetirizine	50	1	O+	NULL
11	Rahul Dev	Male	1990-04-20	1111111111	Delhi	India	Typhoid	700	Max	General	2023-06-22	1800	Recovered	1	0	111	Dr. Arora	Antibiotics	200	1	A+	NULL
12	Sunita Jain	Female	1986-12-12	9999999999	Rajasthan	India	Fever	400	Sawai Mansingh	General	2023-06-15											

## 13) IN BETWEEN

```
mysql> select * from Medical where Doctor_id in(101,110);
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
10	Nisha Kapoor	Female	1992-09-14	2020202020	Punjab	India	Cold	300	Fortis	General	2023-06-11	1000	Recovered	1	0	110	Dr. Kaur	Cetirizine	50	1	O+	NULL

2 rows in set (0.00 sec)

```
mysql>
```

## 14) NOT IN

```
mysql> select * from Medical where Doctor_id not in(111,117);
```

Patient_id	Name	Gender	D.O.B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1000	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+	NULL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	lalit Mehta	Painkillers	300	0	B+	NULL
4	Meena Verma	Female	1978-07-10	8080808080	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+	NULL
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NULL
6	Riya Sen	Female	1995-08-08	6060606060	Bengal	India	Migraine	500	Apollo	Neuro	2023-06-01	2500	Recovered	1	0	106	Dr. Das	Painkillers	100	1	O-	NULL
7	Suresh Iyer	Male	1970-02-17	5050505050	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	2023-07-01	10000	Critical	1	1	107	Dr. Menon	Beta Blockers	700	0	A-	NULL
8	Pooja Nair	Female	1998-03-30	4040404040	Kerala	India	Fracture	1300	Amrita	Ortho	2023-05-15	3500	Recovered	1	0	108	Dr. Varghese	Painkillers	200	1	B+	NULL
9	Ami Joshi	Male	1988-01-05	3030303030	MP	India	Cancer	10000	Tata Memorial	Onco	2023-03-01	50000	Under Treatment	1	0	109	Dr. Gupta	Chemotherapy	5000	0	AB-	NULL
10	Nisha Kapoor	Female	1992-09-14	2020202020	Punjab	India	Cold	300	Fortis	General	2023-06-11	1000	Recovered	1	0	110	Dr. Kaur	Cetirizine	50	1	O+	NULL

## USE AGGREGATION FUNCTION

### 1)MIN()

```
mysql> select Min(Attended_Patient) from Medical;
+-----+
| Min(Attended_Patient) |
+-----+
| 1 |
+-----+
1 row in set (0.10 sec)
```

### 2)MAX()

```
mysql> select Max(Healed_Patient) from Medical;
+-----+
| Max(Healed_Patient) |
+-----+
| 1 |
+-----+
1 row in set (0.00 sec)
```

### 3)COUNT()

```
mysql> select count(Doctor_Name) from medical;
+-----+
| count(Doctor_Name) |
+-----+
| 18 |
+-----+
1 row in set (0.06 sec)
```

### 4)SUM

```
mysql> select Sum(Mortality) from Medical;
+-----+
| Sum(Mortality) |
+-----+
| 1 |
+-----+
1 row in set (0.02 sec)
```

### 5)AVG()

```
mysql> select Avg(Total_Amount_Paid) from Medical;
+-----+
| Avg(Total_Amount_Paid) |
+-----+
| 5302.7778 |
+-----+
1 row in set (0.02 sec)
```

```
mysql>
```

## USE OF CLAUSES

### 1) HAVING:

```
mysql> select Patient_id from Medical having Patient_id=10;
+-----+
| Patient_id |
+-----+
|          10 |
+-----+
1 row in set (0.07 sec)
```

### 2) DISTINCT

```
mysql> select Distinct(Department) from Medical;
+-----+
| Department |
+-----+
| General    |
| Emergency  |
| Ortho      |
| Endocrine  |
| Respiratory|
| Neuro      |
| Cardio     |
| Onco       |
| Gastro    |
+-----+
```

### 3) GROUP BY



```
mysql> select Name from Medical group by name;
```

Name
John Doe
Jane Smith
Raj Patel
Meena Verma
Ali Khan
Riya Sen
Suresh Iyer
Pooja Nair
Amit Joshi
Nisha Kapoor
Rahul Dev
Sunita Jain
Vikram Thakur
Anjali Rao
Naveen Jain
Priya Yadav
Zaid Khan
Kajal Desai

```
18 rows in set (0.06 sec)
```

#### 4)ORDER BY

```
mysql> select Doctor_Name from Medical order by Doctor_name;
```

Doctor_Name
Abdul Qadir
Amol Joshi
Dr. Arora
Dr. Bhargav
Dr. Chauhan
Dr. Das
Dr. Gupta
Dr. Kaur
Dr. Menon
Dr. Patel
Dr. Reddy
Dr. Roy
Dr. Shariff
Dr. Singh

#### 5)LIMIT



```
mysql> select * from Medical Limit 5;
```

Patient_id	Name	Gender	D_O_B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India	Flu	500	Apollo	General	2023-07-01	1800	Recovered	1	0	101	Raj Sharma	Paracetamol	100	1	O+	NULL
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India	Covid-19	1000	AIIMS	Emergency	2023-06-25	3000	Recovered	1	0	102	Safawan Shaikh	Remdesivir	500	1	A+	NULL
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	2023-05-20	4500	Recovering	1	0	103	lalit Mehta	Painkillers	300	0	B+	NULL
4	Meena Verma	Female	1978-07-10	0000000000	UP	India	Diabetes	1200	Fortis	Endocrine	2023-04-18	4000	Stable	1	0	104	Amol Joshi	Insulin	200	0	AB+	NULL
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NULL

```
5 rows in set (0.00 sec)
```

## 6)OFFSET

```
mysql> select * from Medical Limit 2 offset 4;
```

Patient_id	Name	Gender	D_O_B	Contact	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Total_Amount_Paid	Recovery_Status	Attended_Patient	Mortality	Doctor_id	Doctor_Name	Medicine_Prescribed	Med_Price	Healed_Patient	Blood_Group	Med_Price_Status
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India	Asthma	900	Lilavati	Respiratory	2023-06-10	3200	Recovered	1	0	105	Abdul Qadir	Inhaler	150	1	B-	NULL
6	Riya Sen	Female	1995-08-08	0000000000	Bengal	India	Migraine	500	Apollo	Neuro	2023-06-01	2500	Recovered	1	0	106	Dr. Das	Painkillers	100	1	O-	NULL

```
2 rows in set (0.00 sec)
```

```
mysql>
```

## 7)LIKE

```
mysql> select Dignosis from Medical where dignosis like "c%";
```

Dignosis
Covid-19
Cancer
Cold
Cold

```
4 rows in set (0.03 sec)
```

## 8)LIKE %d

```
mysql> select Doctor_Name from Medical where Doctor_Name like "%d%";
```

Doctor_Name
Abdul Qadir
Dr. Das
Dr. Menon
Dr. Varghese
Dr. Gupta
Dr. Kaur
Dr. Arora
Dr. Bhargav
Dr. Chauhan
Dr. Reddy
Dr. Roy
Dr. Singh
Dr. Shariff
Dr. Patel

```
14 rows in set (0.00 sec)
```

## JOINS

```
mysql> SELECT A.Name AS Medical_1, B.Name As Medical_2 FROM Medical A CROSS JOIN Medical B;
```

Medical_1	Medical_2
Kajal Desai	John Doe
Zaid Khan	John Doe
Priya Yadav	John Doe
Naveen Jain	John Doe
Anjali Rao	John Doe
Vikram Thakur	John Doe
Sunita Jain	John Doe
Rahul Dev	John Doe
Nisha Kapoor	John Doe
Amit Joshi	John Doe
Pooja Nair	John Doe
Suresh Iyer	John Doe
Riya Sen	John Doe
Ali Khan	John Doe
Meena Verma	John Doe
Raj Patel	John Doe
Jane Smith	John Doe
John Doe	John Doe
Kajal Desai	Jane Smith
Zaid Khan	Jane Smith
Priya Yadav	Jane Smith
Naveen Jain	Jane Smith
Anjali Rao	Jane Smith
Vikram Thakur	Jane Smith
Sunita Jain	Jane Smith
Rahul Dev	Jane Smith
Nisha Kapoor	Jane Smith
Amit Joshi	Jane Smith
Pooja Nair	Jane Smith
Suresh Iyer	Jane Smith
Riya Sen	Jane Smith
Ali Khan	Jane Smith
Meena Verma	Jane Smith
Raj Patel	Jane Smith
Jane Smith	Jane Smith
John Doe	Jane Smith
Kajal Desai	Raj Patel
Zaid Khan	Raj Patel
Priya Yadav	Raj Patel

## SELF JOIN:

```
mysql> SELECT A.Name AS Medical_1, B.Name AS Medical_2, A.State FROM Medical A JOIN Medical B ON A.State = B.State AND A.Name <> B.Name;
+-----+-----+-----+
| Medical_1 | Medical_2 | State |
+-----+-----+-----+
| Zaid Khan | John Doe  | Karnataka |
| Rahul Dev | Jane Smith | Delhi     |
| Kajal Desai | Raj Patel | Gujarat   |
| Priya Yadav | Meena Verma | UP       |
| Jane Smith | Rahul Dev | Delhi     |
| Meena Verma | Priya Yadav | UP       |
| John Doe | Zaid Khan | Karnataka |
| Raj Patel | Kajal Desai | Gujarat   |
+-----+-----+-----+
8 rows in set (0.00 sec)

mysql>
```

## EXPORTING DATA FROM WORKBENCH TO EXCEL:

MySQL Workbench interface showing the 'Export Results' dialog box. The dialog is open over a query window. The 'Export Results' dialog has tabs for 'Table', 'Table Delimited', 'Table Comma', 'Table Text', 'Table CSV', 'Table TSV', 'Table XML', 'Table JSON', 'Table HTML', 'Table XLSX', and 'Table ODS'. The 'Table XLSX' tab is selected. The 'Export to' field is set to 'C:\Users\ibad\Documents'. The 'Export range' is set to 'All data'. The 'Export options' section is expanded, showing 'Export table structure' and 'Export data' checked. The 'Export results' button is highlighted.

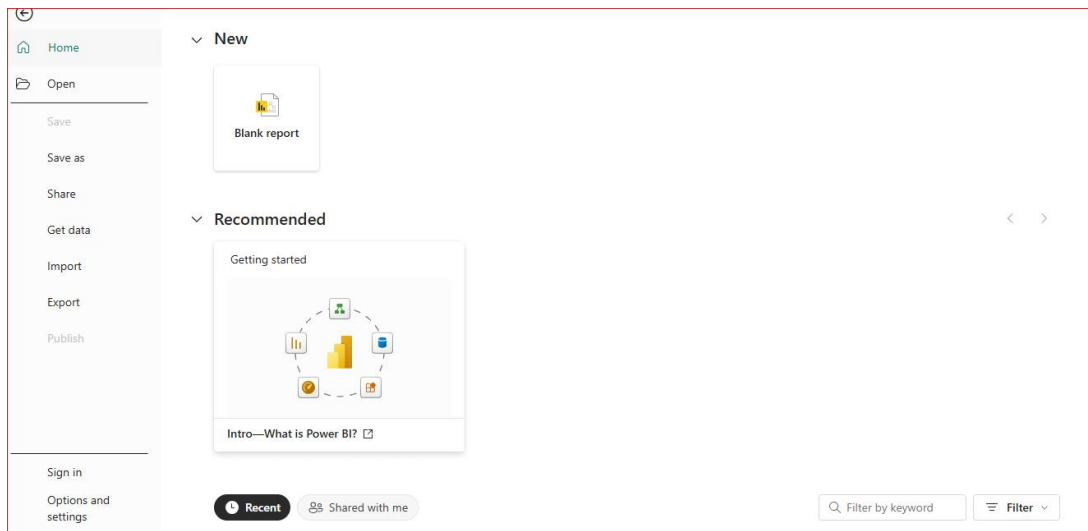
## CHECK THE DATA SUCESSFULLY LOADED:

MySQL Workbench interface showing the 'Result Grid' for a query. The query is 'select \* from medical;'. The 'Result Grid' shows 18 rows of data. The columns are Patient\_id, Name, Gender, D\_O\_B, Contact, State, and Country. The data is as follows:

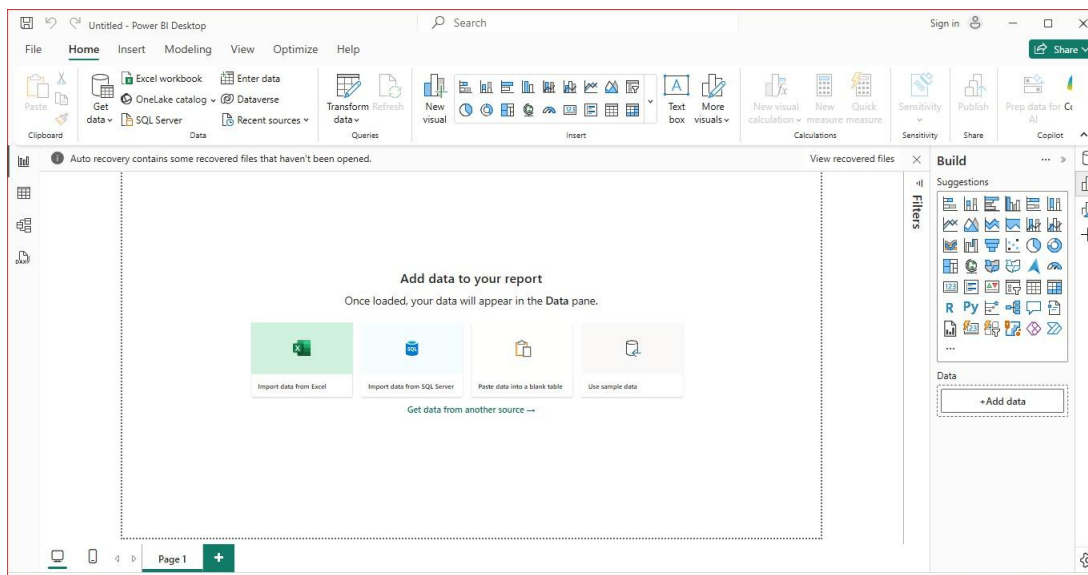
Patient_id	Name	Gender	D_O_B	Contact	State	Country
1	John Doe	Male	1990-05-10	1234567890	Karnataka	India
2	Jane Smith	Female	1985-11-23	9876543210	Delhi	India
3	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India
4	Meena Verma	Female	1978-07-10	8080808080	UP	India
5	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India
6	John Doe	Male	1990-05-10	1234567890	Karnataka	India
7	Jane Smith	Female	1985-11-23	9876543210	Delhi	India
8	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India
9	Meena Verma	Female	1978-07-10	8080808080	UP	India
10	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India
11	John Doe	Male	1990-05-10	1234567890	Karnataka	India
12	Jane Smith	Female	1985-11-23	9876543210	Delhi	India
13	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India
14	Meena Verma	Female	1978-07-10	8080808080	UP	India
15	Ali Khan	Male	1982-12-01	7070707070	Maharashtra	India
16	John Doe	Male	1990-05-10	1234567890	Karnataka	India
17	Jane Smith	Female	1985-11-23	9876543210	Delhi	India
18	Raj Patel	Male	1993-03-15	9090909090	Gujarat	India

## POWERBI

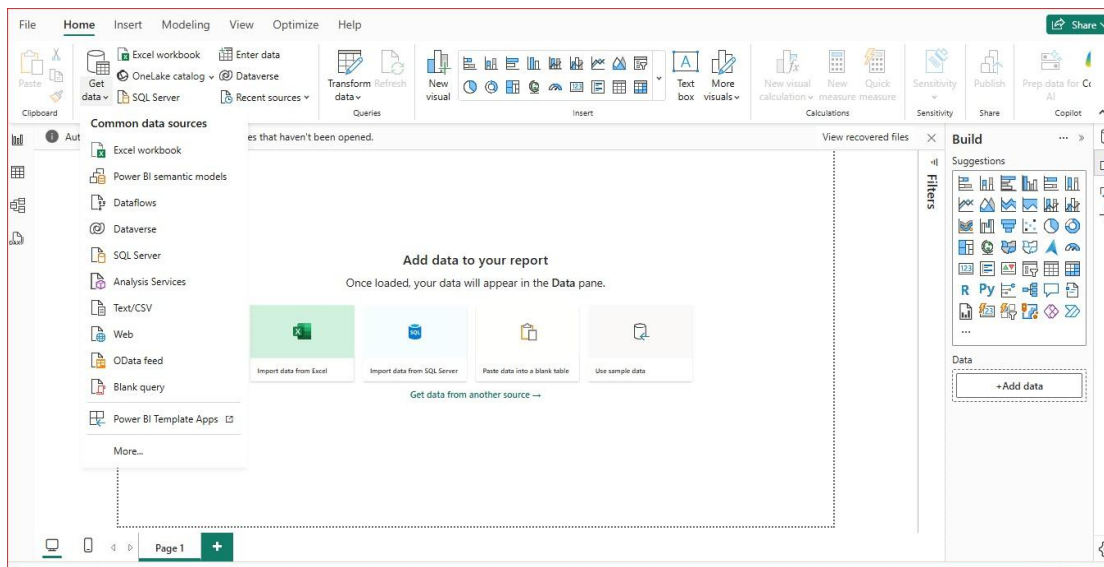
### GET BLANK REPORT ON POWERBI:



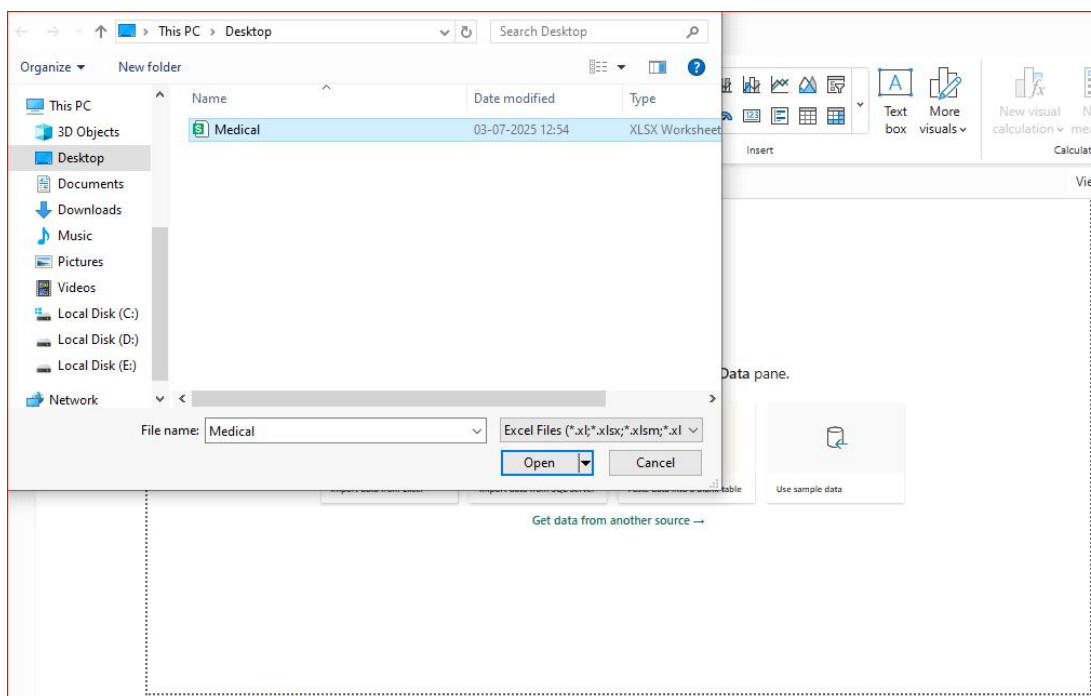
### POWER GET DATA:



### JUST CLICK ON DATA AND CLICK MORE BELOW:



## **TRANSFORMING DATA BY EXCEL AND FOLDER:-**



## **TRANSFER DATA IN POWERBI**



### Navigator

Display Options

Medical.xlsx [1]

☒
Medical

### Medical

Patient_id	Name	Gender	D_O_B	Contact	State
1	John Doe	Male	10-05-1990	1234567890	Karnatak
2	Jane Smith	Female	23-11-1985	9876543210	Delhi
3	Raj Patel	Male	15-03-1993	9090909090	Gujarat
4	Meena Verma	Female	10-07-1978	8080808080	UP
5	Ali Khan	Male	01-12-1982	7070707070	Maharas
6	Riya Sen	Female	08-08-1995	6060606060	Bengal
7	Suresh Iyer	Male	17-02-1970	5050505050	Tamil Na
8	Pooja Nair	Female	30-03-1998	4040404040	Kerala
9	Amit Joshi	Male	05-01-1980	3030303030	MP
10	Nisha Kapoor	Female	14-09-1992	2020202020	Punjab
11	Rahul Dev	Male	20-04-1990	1111111111	Delhi
12	Sunita Jain	Female	12-12-1986	9999999999	Rajastha
13	Vikram Thakur	Male	06-06-1991	8888888888	Haryana
14	Anjali Rao	Female	11-11-1994	7777777777	Telangar
15	Naveen Jain	Male	21-05-1988	6666666666	Bihar
16	Priya Yadav	Female	02-02-1993	5555555555	UP
17	Zaid Khan	Male	09-09-1996	4444444444	Karnatak
18	Kajal Desai	Female	03-03-1997	3333333333	Gujarat

<

>

Load

Transform Data

Cancel

## **DATA CLEANING IN POWERBI:**

**REMOVING DUPLICATES:** CLICK ON REMOVE DUPLICATES.

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Split Column Group By Use First Row as Headers Replace Values

Queries [1] = Table.RemoveColumns("#Promoted Headers",{Mortality})

ABC 123	Patient_id	ABC 123	Name	ABC 123	Gender	ABC 123	D_O_B	ABC 123	Contact	ABC 123	State
100%	Valid	100%	Valid	100%	Valid	100%	Valid	100%	Valid	100%	Valid
0%	Error	0%	Error	0%	Error	0%	Error	0%	Error	0%	Error
0%	Empty	0%	Empty	0%	Empty	0%	Empty	0%	Empty	0%	Empty
1	1000	Recovered	1								
2	3000	Recovered	1								
3	4500	Recovering	1								
4	4000	Stable	1								
5	3200	Recovered	1								
6	2500	Recovered	1								
7	10000	Critical	1								
8	3500	Recovered	1								
9	50000	Under Treatment	1								
10	1000	Recovered	1								
11	1800	Recovered	1								
12	1000	Recovered	1								
13	1500	Recovered	1								
14	1200	Recovered	1								
15	3000	Recovering	1								
16	2200	Recovered	1								
17	1100	Recovered	1								
18	950	Recovered	1								

**REMOVE COLUMN:-** CLICK ON ONLY REMOVE.

Enter Data Data source settings Manage Parameters Refresh Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Split Column Group By Use First Row as Headers Replace Values

Queries [1] = Table.PromoteHeaders(Medical\_Sheet, [PromoteAllScalars=true])

ABC 123	Recovery_Status	ABC 123	Attended_Patient	ABC 123	Mortality	ABC 123	Doctor_id	ABC 123	Doctor_Name	ABC 123	Me
100%	Valid	100%	Valid	100%	Valid	100%	Valid	100%	Valid	100%	Valid
0%	Error	0%	Error	0%	Error	0%	Error	0%	Error	0%	Error
0%	Empty	0%	Empty	0%	Empty	0%	Empty	0%	Empty	0%	Empty
1	1000	Recovered	1								
2	3000	Recovered	1								
3	4500	Recovering	1								
4	4000	Stable	1								
5	3200	Recovered	1								
6	2500	Recovered	1								
7	10000	Critical	1								
8	3500	Recovered	1								
9	50000	Under Treatment	1								
10	1000	Recovered	1								
11	1800	Recovered	1								
12	1000	Recovered	1								
13	1500	Recovered	1								
14	1200	Recovered	1								
15	3000	Recovering	1								
16	2200	Recovered	1								
17	1100	Recovered	1								
18	950	Recovered	1								

**REPLACE VALUE:** REPLACING THE NULLVALUE INTO NUMBER.

Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Properties Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Split Column Group By Use First Row a Replace Values

Queries [2] Medical Medical (2)

Table.RemoveColumns(#"Removed Duplicates",{"Contact"})

Replace Values

Replace one value with another in the selected columns.

Value To Find: NULL

Replace With: 0

Advanced options

OK Cancel

Patient_id	Name	Gender	D.O.B	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Tot
1	John Doe	Male	10 May 1990	Karnataka	India	Flu	500	Apollo	General	01 July 2023	
2	Jane Smith	Female	23 November 1985	Delhi	India	Covid-19	1000	AIIMS	Emergency	25 June 2023	
3	Raj Patel	Male	15 March 1993	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	20 May 2023	
4	Meena Verma	Female	10 July 1978	UP	India	Diabetes	1200	Fortis	Endocrine	18 April 2023	
5	Ali Khan	Male	01 December 1982	Maharashtra	India	Asthma	900	Lilavati	Respiratory	10 June 2023	
6	Riya Sen	Female	08 August 1995	Bengal	India	Migraine	500	Apollo	Neuro	01 June 2023	
7	Suresh Iyer	Male	17 February 1970	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	01 July 2023	
8	Pooja Nair	Female	30 March 1998	Kerala	India	Fracture	1300	Amrita	Ortho	15 May 2023	
9	Amit Joshi	Male	05 January 1980	MP	India	Cancer	10000	Tata Memorial	Onco	01 March 2023	
10	Nisha Kapoor	Female	14 September 1992	Punjab	India	Cold	300	Fortis	General	11 June 2023	
11	Rahul Dev	Male	20 April 1990	Delhi	India	Typhoid	700	Max	General	22 June 2023	
12	Sunita Jain	Female	12 December 1986	Rajasthan	India	Fever	400	Sawai Mansingh	General	15 June 2023	
13	Vikram Thakur	Male	06 June 1991	Haryana	India	Malaria	600	Civil Hospital	General	18 June 2023	
14	Anjali Rao	Female	11 November 1994	Telangana	India	Flu	500	Apollo	General	12 June 2023	
15	Naveen Jain	Male	21 May 1988	Bihar	India	Ulcer	1200	Paras	Gastro	20 June 2023	
16	Priya Yadav	Female	02 February 1993	UP	India	Anemia	800	Yashoda	General	22 June 2023	
17	Zaid Khan	Male	09 September 1996	Karnataka	India	Flu	400	Apollo	General	25 June 2023	
18	Kajal Desai	Female	03 March 1997	Gujarat	India	Cold	300	Civil Hospital	General	28 June 2023	

COLUMNS: 18 ROWS Column profiling based on top 1000 rows

## DAXFORMULA:-

Name: total sales Format: \*14-03-2001 13:30:00 Data category: Uncategorized

Home table: Medical

Structure Formatting Properties New Quick measure measure Calculations

Auto recovery contains some recovered files that haven't been opened. View recovered files

1 total sales = SUM(Medical[Admission\_Date])

Patient_id	Name	Gender	D.O.B	State	Country	Dignosis	Cost_Per_Dignosis	Hospital_Name	Department	Admission_Date	Tot
1	John Doe	Male	10 May 1990	Karnataka	India	Flu	500	Apollo	General	01 July 2023	
2	Jane Smith	Female	23 November 1985	Delhi	India	Covid-19	1000	AIIMS	Emergency	25 June 2023	
3	Raj Patel	Male	15 March 1993	Gujarat	India	Fracture	1500	Civil Hospital	Ortho	20 May 2023	
4	Meena Verma	Female	10 July 1978	UP	India	Diabetes	1200	Fortis	Endocrine	18 April 2023	
5	Ali Khan	Male	01 December 1982	Maharashtra	India	Asthma	900	Lilavati	Respiratory	10 June 2023	
6	Riya Sen	Female	08 August 1995	Bengal	India	Migraine	500	Apollo	Neuro	01 June 2023	
7	Suresh Iyer	Male	17 February 1970	Tamil Nadu	India	Heart Attack	2500	Apollo	Cardio	01 July 2023	
8	Pooja Nair	Female	30 March 1998	Kerala	India	Fracture	1300	Amrita	Ortho	15 May 2023	
9	Amit Joshi	Male	05 January 1980	MP	India	Cancer	10000	Tata Memorial	Onco	01 March 2023	
10	Nisha Kapoor	Female	14 September 1992	Punjab	India	Cold	300	Fortis	General	11 June 2023	
11	Rahul Dev	Male	20 April 1990	Delhi	India	Typhoid	700	Max	General	22 June 2023	
12	Sunita Jain	Female	12 December 1986	Rajasthan	India	Fever	400	Sawai Mansingh	General	15 June 2023	
13	Vikram Thakur	Male	06 June 1991	Haryana	India	Malaria	600	Civil Hospital	General	18 June 2023	
14	Anjali Rao	Female	11 November 1994	Telangana	India	Flu	500	Apollo	General	12 June 2023	
15	Naveen Jain	Male	21 May 1988	Bihar	India	Ulcer	1200	Paras	Gastro	20 June 2023	
16	Priya Yadav	Female	02 February 1993	UP	India	Anemia	800	Yashoda	General	22 June 2023	
17	Zaid Khan	Male	09 September 1996	Karnataka	India	Flu	400	Apollo	General	25 June 2023	
18	Kajal Desai	Female	03 March 1997	Gujarat	India	Cold	300	Civil Hospital	General	28 June 2023	

Country

D.O.B

Department

Dignosis

Doctor\_id

Doctor\_Name

Gender

Healed\_Patient

Hospital\_Name

Med\_Price

Med\_Price\_Status

Medicine\_Prescribed

Mortality

Name

Patient\_id

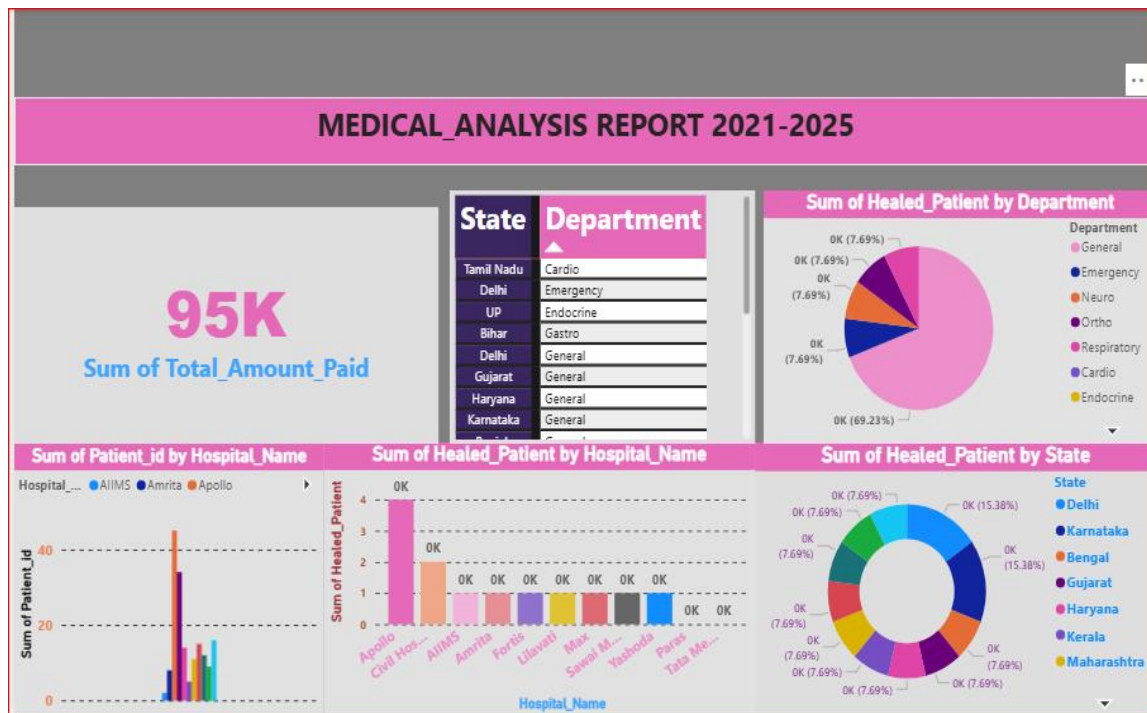
Recovery\_Status

State

total sales

Total\_Amount\_Paid

## DASHBOARD



## CONCLUSION:

This Power Bi project provides valuable insights into medical data analysis, enabling healthcare professionals and organizations to make more informed decisions. By utilizing interactive dashboards and visualization, the project facilitates a deeper understanding of patient trends, resource allocation, and

overall healthcare performance, ultimately contributing to improved patient care and operational efficiency.

### 🕒 Improved Operational Efficiency:

The project's insights can help identify areas for improvement in hospital operations, leading to cost savings and increased efficiency.

### 🕒 Collaboration and Communication:

The interactive dashboards facilitate collaboration and communication among different stakeholders within the healthcare organization.

### 🕒 Accessibility and Ease of Use:

The user-friendly interface and interactive features ensure that the project's insights are accessible to a wide range of healthcare professionals, even those without extensive technical expertise.