Ambulance Booking System

Final Project for SQL Module

By Hridayesh More

- **Description**:

    Following database schema is designed to function as a backend storage database for a web application built to manage a Ambulance.

    By storing information in a relational database, all the tasks related to daily functioning of the ambulance can be performed easily and much more efficiently. Some of the benefits of using this system to store data over traditional paper registers are as follows:

    - Updating and modifying user and patient is much easier and efficient
    - Maintaining patient details and their user account is easy and efficient.
    - Calculations like due payments can be done automatically by DBMS, thus eliminating humanerror
    - RDBMS provides many ways to analyze available data, thus helping in making more informeddecisions about inventory management and other aspects of Booking System.
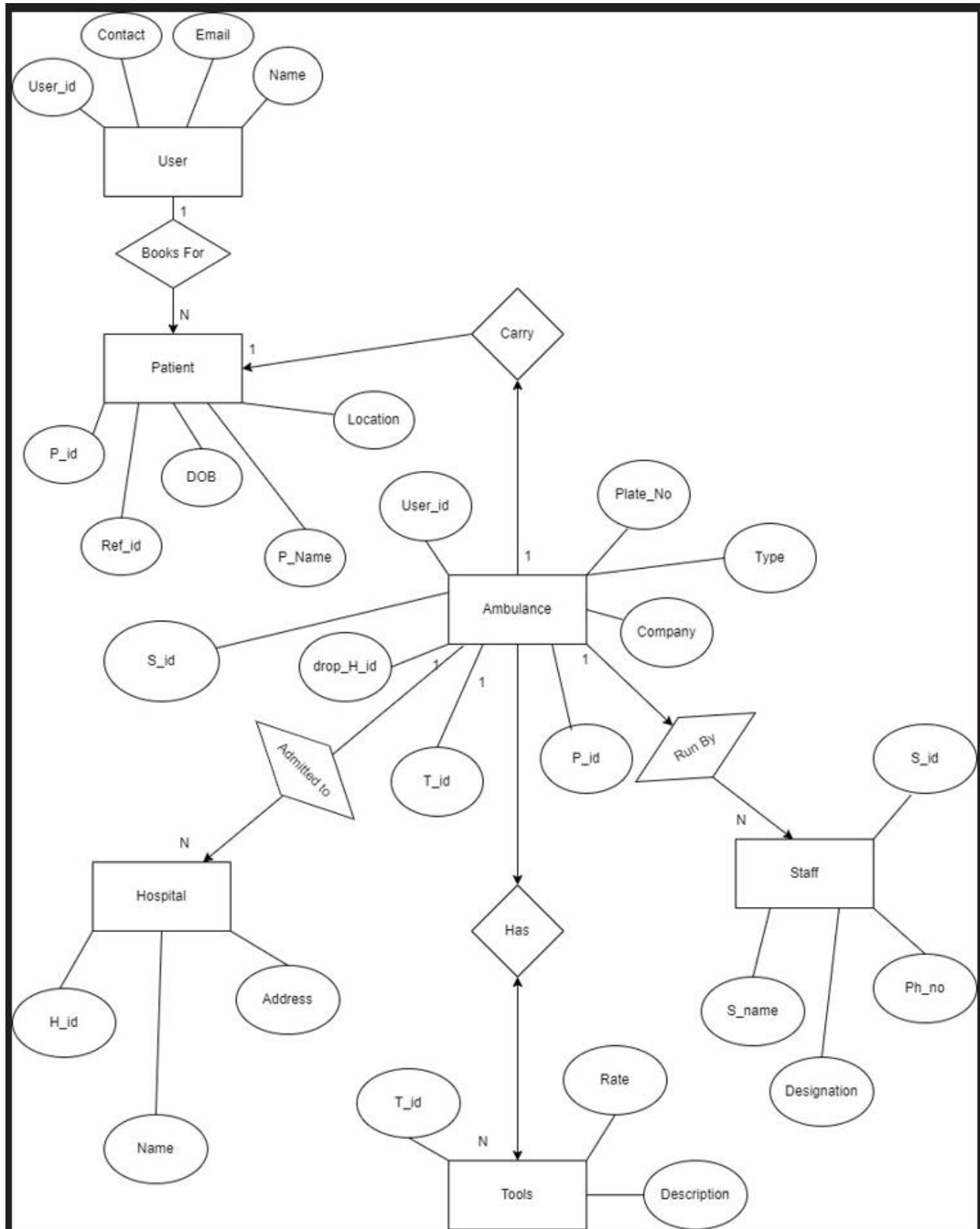
This database contains 5 tables:
1. User
2. Patient
3. Staff
4. Tools
5. Hospital
6. Ambulance

    How these tables/entities are related to each other is shown pictorially on next page throughER diagram,

    i.e., Entity Relationship Diagram.

Ambulance Booking System

- ER-Diagram:

- **Table Descriptions:**

  - **User**:-

```
+---------+-------------+------+-----+---------+----------------+
| Field   | Type        | Null | Key | Default | Extra          |
+---------+-------------+------+-----+---------+----------------+
| user_id | int(11)     | NO   | PRI | NULL    | auto_increment |
| f_name  | varchar(50) | NO   |     | NULL    |                |
| l_name  | varchar(50) | NO   |     | NULL    |                |
| email   | varchar(50) | YES  |     | NULL    |                |
| contact | varchar(20) | NO   |     | NULL    |                |
+---------+-------------+------+-----+---------+----------------+
```

  - **Patient**:-

```
+---------------+-------------+------+-----+---------+----------------+
| Field         | Type        | Null | Key | Default | Extra          |
+---------------+-------------+------+-----+---------+----------------+
| p_id          | int(11)     | NO   | PRI | NULL    | auto_increment |
| ref_u_id      | int(11)     | YES  | MUL | NULL    |                |
| f_name        | varchar(50) | YES  |     | NULL    |                |
| l_name        | varchar(50) | YES  |     | NULL    |                |
| Date_of_birth | date        | YES  |     | NULL    |                |
| location      | varchar(50) | YES  |     | NULL    |                |
```

  - **Staff**:-

```
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| s_id        | int(11)     | YES  |     | NULL    |       |
| s_name      | varchar(50) | YES  |     | NULL    |       |
| ph_no       | varchar(20) | YES  |     | NULL    |       |
| Designation | varchar(20) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
```

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o **Tool**:-

```
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| t_id        | int(11)      | NO   | PRI | NULL    |       |
| description | varchar(50)  | YES  |     | NULL    |       |
| rate        | double       | YES  |     | NULL    |       |
+-------------+--------------+------+-----+---------+-------+
```

o **Hospital**:-

```
+---------+--------------+------+-----+---------+-------+
| Field   | Type         | Null | Key | Default | Extra |
+---------+--------------+------+-----+---------+-------+
| h_id    | int(11)      | NO   | PRI | NULL    |       |
| name    | varchar(50)  | YES  |     | NULL    |       |
| address | varchar(50)  | YES  |     | NULL    |       |
+---------+--------------+------+-----+---------+-------+
```

o **Ambulance**:-

```
+------------+--------------+------+-----+---------+-------+
| Field      | Type         | Null | Key | Default | Extra |
+------------+--------------+------+-----+---------+-------+
| user_id    | int(11)      | YES  | MUL | NULL    |       |
| Plate_No   | varchar(10)  | YES  |     | NULL    |       |
| type       | varchar(50)  | YES  |     | NULL    |       |
| p_id       | int(11)      | YES  | MUL | NULL    |       |
| t_id       | int(11)      | YES  | MUL | NULL    |       |
| t_quantity | double       | YES  |     | NULL    |       |
| drop_H_id  | int(11)      | YES  | MUL | NULL    |       |
| s_id       | int(11)      | YES  |     | NULL    |       |
+------------+--------------+------+-----+---------+-------+
```

• Commands:-

○ **Create Database:**

Create database ambulance_booking_system;

○ **Select Database:**

use ambulance_booking_system;

○ **Create Table Named User:**

create table user(

user_id int primary key auto_increment,

f_name varchar(50) not null,

l_name varchar(50) not null,

email varchar(50),

contact varchar(20) not null);

○ **Create Table Named Patient:**

create table patient(

p_id int primary key auto_increment,

ref_u_id int,

f_name varchar(50),

l_name varchar(50),

Date_of_birth date,

location varchar(50),

constraint foriegn key(ref_u_id) references user(user_id));

○ **Create Table Named Staff:**

create table staff(

s_id int,

s_name varchar(50),

ph_no varchar(20),

Designation varchar(20));

- ### **Create Table Named Hospital:**

  create table hospital(

  h_id int primary key,

  name varchar(50),

  address varchar(50));

- ### **Create Table Named Tool:**

  create table tool(

  t_id int primary key,

  description varchar(50),

  rate double);

- ### **Create Table Named Ambulance:**

  create table ambulance(

  user_id int,

  Plate_No varchar(10),

  type varchar(50),

  p_id int,

  t_id int,

  t_quantity double,

  drop_H_id int,

  s_id int,

  constraint foreign key (user_id) references user(user_id),

  foreign key (p_id) references patient(p_id),

  foreign key (t_id) references tool(t_id),

  foreign key (drop_H_id) references hospital(h_id));

- **Populate Table:**
  - **User**:

    insert into user(f_name,l_name,email,contact) values

    ("Hridayesh","More","hridayesh@gmail.com","7738756301"),

    ("Rahul","Agarwal","Rahul@gmail.com","9936458614"),

    ("Abhishek","Ahuja","Abhishek@gmail.com","0520247293"),

    ("Aditya","Apte","Aditya@gmail.com","9887662982"),

    ("Amit","Babu","Amit@gmail.com","6869667930"),

    ("Mahesh","Basu","Mahesh@gmail.com","8910821862"),

    ("Rohit","Batra","Rohit@gmail.com","2923415612"),

    ("Yash","Bedi","Yash@gmail.com","6805974275"),

    ("Ankit","Agarwal","Ankit@gmail.com","8380712682"),

    ("Shyam","More","Shyam@gmail.com","5304072160"),

    ("Deepak","More","Deepak@gmail.com","3169104514"),

    ("Aryan","Bhatt","Aryan@gmail.com","1575371522"),

    ("Raj","Jadhav","Raj@gmail.com","5688757032"),

    ("Arjun","Sawant","Arjun@gmail.com","9140557224"),

    ("Manoj","More","Manoj@gmail.com","0290728921"),

    ("priya","More","priya@gmail.com","4827352756"),

    ("Tanya","Apte","Tanya@gmail.com","1028536626"),

    ("Priyanka","More","Priyanka@gmail.com","8855942081"),

    ("Divya","Ahuja","Divya@gmail.com","2432868179"),

    ("Tanvi","Babu","Tanvi@gmail.com","1068684210"),

    ("Ishita","Jadhav","Ishita@gmail.com","3842559984"),

    ("Vani","More","Vani@gmail.com","6988087182"),

    ("Anjali","Agarwal","Anjali@gmail.com","3986035376"),

    ("Shreya","More","Shreya@gmail.com","3605031062"),

    ("Riya","Basu","Riya@gmail.com","1818791056"),

    ("Sneha","Sawant","Sneha@gmail.com","3593137640"),

    ("Gayatri","Bhatt","Gayatri@gmail.com","9099012225"),

    ("Varsha","Batra","Varsha@gmail.com","2015863235"),

    ("Ira","More","Ira@gmail.com","0714791644"),

    ("Sanjana","Jadhav","Sanjana@gmail.com","9782134617"),

    ("Nikita","Ahuja","Nikita@gmail.com","5922055243"),

    ("Vivek","More","Vivek@gmail.com","4353438175"),

    ("Parth","Sawant","Parth@gmail.com","0502501223"),

```
("Soham","Agarwal","Soham@gmail.com","2772955218"),
("Ajith","More","Ajith@gmail.com","3241342288"),
("Abhi","Apte","Abhi@gmail.com","6552984040"),
("Pratik","More","Pratik@gmail.com","7034283698"),
("Rishab","Basu","Rishab@gmail.com","6812023628"),
("Virat","Babu","Virat@gmail.com","7295015429"),
("Shreyas","More","Shreyas@gmail.com","6195108224"),
("Bumrah","Ahuja","Bumrah@gmail.com","0812097892"),
("Jay","More","Jay@gmail.com","0711901759"),
("Tanu","Jadhav","Tanu@gmail.com","8867370401"),
("Smriti","Bedi","Smriti@gmail.com","9588570320"),
("Radha","Bhatt","Radha@gmail.com","8715232080"),
("Pooja","Sawant","Pooja@gmail.com","2994827785"),
("Diya","Agarwal","Diya@gmail.com","9026748974"),
("Divya","More","Divya@gmail.com","0454007167"),
("Prachi","Batra","Prachi@gmail.com","5214148932"),
("Arti","Basu","Arti@gmail.com","3445976861"),
("Sam","Jadhav","Sam@gmail.com","0348273907"),
("Mitali","Ahuja","Mitali@gmail.com","7738346301"),
("Ajeet","Bedi","Ajeet@gmail.com","7228756301"),
("Atul","Babu","Atul@gmail.com","1138756301"),
("Karan","Agarwal","Karan@gmail.com","7738751201"),
("Paras","Apte","Paras@gmail.com","3438756301");
```

- o **Patient**:

insert into patient(ref_u_id,f_name,l_name,Date_of_birth,location) values

(23,"Rashi","sawant","1980-02-10","Kanjurmarg"),

(11,"Deepa","Jadhav","1985-07-12","Parel"),

(3,"Khushi","Lad","1990-03-20","Mulund"),

(6,"Anu","More","2010-01-12","badlapur"),

(24,"Angel","Lad","1980-04-10","Parel"),

(55,"Lily","sawant","2000-07-12","Kanjurmarg"),

(45,"Sarah","More","1985-02-20","Mulund"),

(33,"Diksha","sawant","1980-07-12","badlapur"),

(22,"Kavya","Jadhav","2000-05-10","Parel"),

(1,"Rashi","Dayal","1985-03-12","Mulund"),

(46,"Niti","More","1990-02-12","Kanjurmarg"),

(36,"Ria","sawant","1980-07-12","badlapur"),

(36,"Dia","Lad","2000-07-20","Mulund"),

(36,"Sam","sawant","2000-03-10","Parel"),

(56,"Dilmini","sawant","2010-07-12","Mulund"),

(22,"Ishika","sawant","2000-04-12","Kanjurmarg"),

(12,"Sarah","More","1980-07-12","badlapur"),

(78,"Avi","sawant","2000-02-12","Mulund"),

(34,"Jatin","Dayal","1985-07-20","badlapur"),

(5,"Harish","Jadhav","2000-05-10","Parel"),

(8,"Ajeet","sawant","1990-03-12","Kanjurmarg"),

(9,"Pranay","More","1980-02-12","badlapur"),

(46,"Parag","sawant","2000-07-12","Parel"),

(34,"Yash","Lad","2000-07-12","Kanjurmarg"),

(32,"Jayesh","sawant","2010-07-12","Mulund"),

(44,"Soham","sawant","1980-04-12","Kanjurmarg"),

(42,"Shrutik","More","1985-07-20","badlapur"),

(47,"Shekar","sawant","2000-05-12","Mulund"),

(49,"Sumit","Dayal","2000-03-12","Parel"),

(36,"Deep","sawant","1980-02-12","badlapur"),

(39,"Akash","More","1985-04-12","Kanjurmarg"),

(21,"Paras","Lad","2000-07-12","badlapur"),

(20,"Rajeev","sawant","1990-07-12","Mulund"),

(30,"Shashank","Jadhav","1980-05-12","badlapur"),

```
(40,"Shail","sawant","2010-07-12","Parel"),
(50,"Sunil","Jadhav","1980-03-10","Mulund"),
(10,"Pranav","More","2000-04-12","Kanjurmarg"),
(1,"Rishikesh","Jadhav","2000-07-12","badlapur"),
(8,"Rutvik","Dayal","1985-07-12","badlapur"),
(27,"Sonu","Lad","2000-07-12","Parel"),
(37,"Krish","sawant","2010-07-12","badlapur"),
(47,"Abhi","More","1990-07-12","Kanjurmarg"),
(50,"John","sawant","2000-05-12","Mulund"),
(51,"Shlok","sawant","1985-07-12","Kanjurmarg"),
(52,"Alok","Jadhav","2000-03-10","Parel"),
(53,"Manu","sawant","2010-07-12","badlapur"),
(54,"Paaus","Dayal","1985-04-12","Kanjurmarg"),
(55,"Varun","sawant","2000-01-12","Kanjurmarg"),
(35,"Akshay","Lad","2000-07-12","badlapur"),
(25,"Sharaukh","sawant","2000-05-12","Parel"),
(15,"Salman","sawant","2010-07-12","Mulund"),
(1,"Ajay","More","2000-01-12","badlapur"),
(2,"vijay","Jadhav","1990-03-12","Kanjurmarg"),
(3,"Dhanush","Jadhav","1985-07-12","Kanjurmarg"),
(4,"Prabhas","Jadhav","2010-070412","badlapur"),
(5,"Alia","Lad","2000-07-12","Kanjurmarg"),
(6,"Kirti","Dayal","2000-03-10","Parel"),
(7,"Pooja","Lad","1985-01-12","Kanjurmarg"),
(8,"Shruti","More","2000-05-12","Mulund"),
(3,"Priyanka","Jadhav","2000-07-12","Parel");
```

- **Hospital**:

insert into hospital values

(2001,"KEM","Parel"),

(2002,"Breach Candy Hospital","Vasai"),

(2003,"Cumballa Hill Hospital & Heart Institute","Virar"),

(2004,"Dr. L H Hiranandani Hospital","Powai"),

(2005,"IPC Heart Care Centre","Lower Parel"),

(2006,"Jaslok Hospital","Pedder Road"),

(2007,"Asian Heart Institute","Bandra"),

(2008,"Aditya Jyot Eye Care Hospital","Wadala"),

(2009,"P. D. Hinduja National Hospital","Mahim"),

(2010,"S L Raheja Hospital","Mahim"),

(2011,"R G Stone Urology Centre","Mulund"),

(2012,"Tata Memorial Hospital","Parel"),

(2013,"Shroff Eye Hospital","Bandra"),

(2014,"Nanavati Hospital","Ville Parle"),

(2015,"Fortis Hospital","Mulund"),

(2016,"Seven Hill Hospital","Andheri");

- **Staff**:

Insert into staff values

(1001,"Sanjay More",'8976318871',"Doctor"),

(1002," Sam Bahadur",'8976318871'," Driver"),

(1003," Chulbul Pandey", "5674578954"," Cleaner"),

(1004," Munna Bhai"," 2345643678especially,"Doctor"),

(1005," Mahendra Bahubali", "6785943045"," Driver"),

(1006," Mogambo"," 6744558090"," Cleaner"),

(1007," Shehensha", "2345678871","Doctor"),

(1008," Bhiku Mhatre", "2908998954"," Cleaner"),

(1009," Tara Singh", "9905643678","Doctor"),

(1010," Sanjay Malhotra", "8899943045"," Driver"),

(1011," Phunsukh Wangdu", "8844558090"," Cleaner"),

- o **Tool**:

  insert into tool values
  (6000,"Oxygen Cylinder",2000),
  (6001,"Oxygen Cylinder",2000),
  (6002,"Oxygen Cylinder",2000),
  (6003,"Oxygen Cylinder",2000),
  (6004,"Oxygen Cylinder",2000),
  (6005,"Oxygen Cylinder",2000),
  (6006,"Oxygen Cylinder",2000),
  (6007,"Oxygen Cylinder",2000),
  (6008,"Oxygen Cylinder",2000),
  (6009,"Oxygen Cylinder",2000),
  (6010,"Wheelchair",500),
  (6011,"Wheelchair",500),
  (6012,"Wheelchair",500),
  (6013,"Wheelchair",500),
  (6014,"Ventilator",1000),
  (6015,"Ventilator",1000),
  (6016,"Sucktion Unit",5000),
  (6017,"Sucktion Unit",5000),
  (6016,"ECG Monitor",2000),
  (6016,"ECG Monitor",2000),
  (6016,"ECG Monitor",2000);

o **Ambulance**:

insert into ambulance values

(1,"MH04ES3127","Basic Life Support (BLS) Ambulances",25,6000,1,2001,1002),

(1,"MH04ES3127","Basic Life Support (BLS) Ambulances",25,6010,1,2001,1006),

(1,"MH04ES3127","Basic Life Support (BLS) Ambulances",25,6018,1,2001,1009),

(5,"MH04ES1009","Advanced Life Support (ALS) Ambulances",27,6011,1,2012,1001),

(5,"MH04ES1009","Advanced Life Support (ALS) Ambulances",27,6017,1,2012,1003),

(5,"MH04ES1009","Advanced Life Support (ALS) Ambulances",27,6000,0,2012,1010),

(10,"MH04ES8810","Intensive Care Unit (ICU) Ambulance",29,6000,1,2015,1009),

(10,"MH04ES8810","Intensive Care Unit (ICU) Ambulance",29,6016,1,2015,1005),

(10,"MH04ES8810","Intensive Care Unit (ICU) Ambulance",29,6020,1,2015,1006),

(16,"MH04ES2128","Basic Life Support (BLS) Ambulances",32,6008,0,2016,1011),

(16,"MH04ES2128","Basic Life Support (BLS) Ambulances",32,6012,1,2016,1002),

(16,"MH04ES2128","Basic Life Support (BLS) Ambulances",32,6020,0,2016,1001),

(19,"MH04ES1540","Basic Life Support (BLS) Ambulances",35,6019,1,2001,1005),

(19,"MH04ES1540","Basic Life Support (BLS) Ambulances",35,6008,0,2001,1004),

(19,"MH04ES1540","Basic Life Support (BLS) Ambulances",35,6008,0,2001,1011),

(22,"MH04ES3318","Basic Life Support (BLS) Ambulances",99,6008,0,2010,),

(22,"MH04ES3318","Basic Life Support (BLS) Ambulances",99,6008,0,2010),

(22,"MH04ES3318","Basic Life Support (BLS) Ambulances",99,6008,0,2010),

(35,"MH04ES5570","Advanced Life Support (ALS) Ambulances",110,6005,1,2010),

(35,"MH04ES5570","Advanced Life Support (ALS) Ambulances",110,6015,1,2010),

(35,"MH04ES5570","Advanced Life Support (ALS) Ambulances",110,6017,1,2010),

(39,"MH04ES0318","Basic Life Support (BLS) Ambulances",115,6008,0,2012),

(39,"MH04ES0318","Basic Life Support (BLS) Ambulances",115,6008,0,2012),

(39,"MH04ES0318","Basic Life Support (BLS) Ambulances",115,6008,0,2012),

(40,"MH04ES2612","Intensive Care Unit (ICU) Ambulance",130,6014,1,2015),

(40,"MH04ES2612","Intensive Care Unit (ICU) Ambulance",130,6007,2,2015),

(40,"MH04ES2612","Intensive Care Unit (ICU) Ambulance",130,6019,1,2015),

(44,"MH04ES4983","Basic Life Support (BLS) Ambulances",112,6008,0,2001),

(44,"MH04ES4983","Basic Life Support (BLS) Ambulances",112,6008,0,2001),

(44,"MH04ES4983","Basic Life Support (BLS) Ambulances",112,6008,0,2001),

(55,"MH04ES0087","Basic Life Support (BLS) Ambulances",122,6008,0,2005),

(55,"MH04ES0087","Basic Life Support (BLS) Ambulances",122,6008,0,2005),

(55,"MH04ES0087","Basic Life Support (BLS) Ambulances",122,6008,0,2005),

```
(44,"MH04ES2128","Basic Life Support (BLS) Ambulances",148,6009,2,2010),
(44,"MH04ES2128","Basic Life Support (BLS) Ambulances",148,6013,1,2010),
(44,"MH04ES2128","Basic Life Support (BLS) Ambulances",148,6008,0,2010),
(12,"MH04ES1540","Basic Life Support (BLS) Ambulances",120,6008,1,2005),
(12,"MH04ES1540","Basic Life Support (BLS) Ambulances",120,6020,1,2005),
(12,"MH04ES1540","Basic Life Support (BLS) Ambulances",120,6008,0,2005),
(2,"MH04ES3318","Basic Life Support (BLS) Ambulances",130,6008,0,2001),
(2,"MH04ES3318","Basic Life Support (BLS) Ambulances",130,6008,0,2001),
(2,"MH04ES3318","Basic Life Support (BLS) Ambulances",130,6008,0,2001),
(1,"MH04ES5570","Advanced Life Support (ALS) Ambulances",135,6007,1,2015),
(1,"MH04ES5570","Advanced Life Support (ALS) Ambulances",135,6016,1,2015),
(1,"MH04ES5570","Advanced Life Support (ALS) Ambulances",135,6019,1,2015);
```

- # Queries

  - ## <u>Joins</u>:

  1.**Select user who book an ambulance.**

     select

     distinct u.user_id,u.f_name,u.l_name

     from user u inner join ambulance a

     on u.user_id=a.user_id;

```
+---------+----------+---------+
| user_id | f_name   | l_name  |
+---------+----------+---------+
|       1 | Hridayesh| More    |
|       2 | Rahul    | Agarwal |
|       5 | Amit     | Babu    |
|      10 | Shyam    | More    |
|      12 | Aryan    | Bhatt   |
|      16 | priya    | More    |
|      19 | Divya    | Ahuja   |
|      22 | Vani     | More    |
|      35 | Ajith    | More    |
|      39 | Virat    | Babu    |
|      40 | Shreyas  | More    |
|      44 | Smriti   | Bedi    |
|      55 | Karan    | Agarwal |
+---------+----------+---------+
```

  2. **Select tools used in MH04ES1009 and MH04ES2128 and its quantity.**

     select

     a.p_id,a.Plate_no,t.t_id,t.description,a.t_quantity

     from ambulance a inner join tool t

     on a.t_id = t.t_id where a.Plate_no

     in ("MH04ES1009","MH04ES2128") ;

```
+------+-----------+------+----------------+------------+
| p_id | Plate_no  | t_id | description    | t_quantity |
+------+-----------+------+----------------+------------+
|  148 | MH04ES2128| 6009 | Oxygen Cylinder|          2 |
|   27 | MH04ES1009| 6011 | Wheelchair     |          1 |
|   32 | MH04ES2128| 6012 | Wheelchair     |          1 |
|  148 | MH04ES2128| 6013 | Wheelchair     |          1 |
|   27 | MH04ES1009| 6017 | Sucktion Unit  |          1 |
+------+-----------+------+----------------+------------+
```

3.**select all the patient which book advanced life support ambulance along with the name of person who booked, its contact and name of the hospital to which patient has been dropped.**

select

distinct u.f_name as user_name,

u.contact,concat(p.f_name," ",p.l_name) as patient_name,

a.type,h.name as Hospital

from user u inner join patient p

inner join ambulance a

inner join hospital h

on u.user_id = p.ref_u_id and

p.p_id = a.p_id and

a.drop_H_id = h.h_id

where type = "Advanced Life Support (ALS) Ambulances";

```
+-----------+------------+--------------+------------------------------------+------------------------+
| user_name | contact    | patient_name | type                               | Hospital               |
+-----------+------------+--------------+------------------------------------+------------------------+
| Amit      | 6869667930 | Anu More     | Advanced Life Support (ALS) Ambulances | Tata Memorial Hospital |
| Ajith     | 3241342288 | Ajeet sawant | Advanced Life Support (ALS) Ambulances | S L Raheja Hospital    |
| Hridayesh | 7738756301 | Manu sawant  | Advanced Life Support (ALS) Ambulances | Fortis Hospital        |
+-----------+------------+--------------+------------------------------------+------------------------+
```

4.**Select user who does not book ambulance.**

select

* from user where user_id not in

(select distinct u.user_id from user u inner join

ambulance a on u.user_id=a.user_id);

```
+---------+----------+---------+----------------------+------------+
| user_id | f_name   | l_name  | email                | contact    |
+---------+----------+---------+----------------------+------------+
|       3 | Abhishek | Ahuja   | Abhishek@gmail.com   | 0520247293 |
|       4 | Aditya   | Apte    | Aditya@gmail.com     | 9887662982 |
|       6 | Mahesh   | Basu    | Mahesh@gmail.com     | 8910821862 |
|       7 | Rohit    | Batra   | Rohit@gmail.com      | 2923415612 |
|       8 | Yash     | Bedi    | Yash@gmail.com       | 6805974275 |
|       9 | Ankit    | Agarwal | Ankit@gmail.com      | 8380712682 |
|      11 | Deepak   | More    | Deepak@gmail.com     | 3169104514 |
|      13 | Raj      | Jadhav  | Raj@gmail.com        | 5688757032 |
|      14 | Arjun    | Sawant  | Arjun@gmail.com      | 9140557224 |
|      15 | Manoj    | More    | Manoj@gmail.com      | 0290728921 |
|      17 | Tanya    | Apte    | Tanya@gmail.com      | 1028536626 |
|      18 | Priyanka | More    | Priyanka@gmail.com   | 8855942081 |
|      20 | Tanvi    | Babu    | Tanvi@gmail.com      | 1068684210 |
|      21 | Ishita   | Jadhav  | Ishita@gmail.com     | 3842559984 |
|      23 | Anjali   | Agarwal | Anjali@gmail.com     | 3986035376 |
|      24 | Shreya   | More    | Shreya@gmail.com     | 3605031062 |
|      25 | Riya     | Basu    | Riya@gmail.com       | 1818791056 |
|      26 | Sneha    | Sawant  | Sneha@gmail.com      | 3593137640 |
|      27 | Gayatri  | Bhatt   | Gayatri@gmail.com    | 9099012225 |
|      28 | Varsha   | Batra   | Varsha@gmail.com     | 2015863235 |
|      29 | Ira      | More    | Ira@gmail.com        | 0714791644 |
|      30 | Sanjana  | Jadhav  | Sanjana@gmail.com    | 9782134617 |
|      31 | Nikita   | Ahuja   | Nikita@gmail.com     | 5922055243 |
|      32 | Vivek    | More    | Vivek@gmail.com      | 4353438175 |
|      33 | Parth    | Sawant  | Parth@gmail.com      | 0502501223 |
|      34 | Soham    | Agarwal | Soham@gmail.com      | 2772955218 |
|      36 | Abhi     | Apte    | Abhi@gmail.com       | 6552984040 |
|      37 | Pratik   | More    | Pratik@gmail.com     | 7034283698 |
|      38 | Rishab   | Basu    | Rishab@gmail.com     | 6812023628 |
|      41 | Bumrah   | Ahuja   | Bumrah@gmail.com     | 0812097892 |
|      42 | Jay      | More    | Jay@gmail.com        | 0711901759 |
|      43 | Tanu     | Jadhav  | Tanu@gmail.com       | 8867370401 |
|      45 | Radha    | Bhatt   | Radha@gmail.com      | 8715232080 |
|      46 | Pooja    | Sawant  | Pooja@gmail.com      | 2994827785 |
|      47 | Diya     | Agarwal | Diya@gmail.com       | 9026748974 |
|      48 | Divya    | More    | Divya@gmail.com      | 0454007167 |
|      49 | Prachi   | Batra   | Prachi@gmail.com     | 5214148932 |
|      50 | Arti     | Basu    | Arti@gmail.com       | 3445976861 |
|      51 | Sam      | Jadhav  | Sam@gmail.com        | 0348273907 |
|      52 | Mitali   | Ahuja   | Mitali@gmail.com     | 7738346301 |
|      53 | Ajeet    | Bedi    | Ajeet@gmail.com      | 7228756301 |
|      54 | Atul     | Babu    | Atul@gmail.com       | 1138756301 |
|      56 | Paras    | Apte    | Paras@gmail.com      | 3438756301 |
+---------+----------+---------+----------------------+------------+
```

5.Get contact of staff who carried patient_id 110,130 and 25 and its dropped hospital.

select
p.p_id,concat(p.f_name," ",p.l_name) as
Patient_Name,a.s_id,s.s_name,s.ph_no,a.drop_H_id,h.name
from patient p inner join ambulance a
inner join staff s inner join hospital h
on p.p_id = a.p_id and a.s_id = s.s_id and a.drop_H_id = h.h_id where p.p_id
in(110,130,25) order by p_id;

```
+------+---------------+------+------------------+------------+-----------+--------------------+
| p_id | Patient_Name  | s_id | s_name           | ph_no      | drop_H_id | name               |
+------+---------------+------+------------------+------------+-----------+--------------------+
|   25 | Deepa Jadhav  | 1009 | Tara Singh       | 9905643678 |      2001 | KEM                |
|   25 | Deepa Jadhav  | 1002 | Sam Bahadur      | 8975678871 |      2001 | KEM                |
|   25 | Deepa Jadhav  | 1006 | Mogambo          | 6744558090 |      2001 | KEM                |
|  110 | Ajeet sawant  | 1005 | Mahendra Bahubali| 6785943045 |      2010 | S L Raheja Hospital|
|  110 | Ajeet sawant  | 1006 | Mogambo          | 6744558090 |      2010 | S L Raheja Hospital|
|  110 | Ajeet sawant  | 1007 | Shehensha        | 2345678871 |      2010 | S L Raheja Hospital|
|  130 | Krish sawant  | 1007 | Shehensha        | 2345678871 |      2001 | KEM                |
|  130 | Krish sawant  | 1010 | Sanjay Malhotra  | 8899943045 |      2015 | Fortis Hospital    |
|  130 | Krish sawant  | 1011 | Phunsukh Wangdu  | 8844558090 |      2015 | Fortis Hospital    |
|  130 | Krish sawant  | 1008 | Bhiku Mhatre     | 2908998954 |      2001 | KEM                |
|  130 | Krish sawant  | 1009 | Tara Singh       | 9905643678 |      2015 | Fortis Hospital    |
|  130 | Krish sawant  | 1010 | Sanjay Malhotra  | 8899943045 |      2001 | KEM                |
+------+---------------+------+------------------+------------+-----------+--------------------+
```

6.**select all the user from user table along with its patient name.**

select
u.user_id,concat(u.f_name," ",u.l_name),p.p_id,concat(p.f_name," ",p.l_name)
from user u left join patient p
on u.user_id = p.ref_u_id;

```
+---------+------------------------------+------+------------------------------+
| user_id | concat(u.f_name," ",u.l_name) | p_id | concat(p.f_name," ",p.l_name) |
+---------+------------------------------+------+------------------------------+
|       1 | Hridayesh More               |   25 | Deepa Jadhav                 |
|       1 | Hridayesh More               |   33 | Rashi Dayal                  |
|       1 | Hridayesh More               |  127 | Rishikesh Jadhav             |
|       1 | Hridayesh More               |  135 | Manu sawant                  |
|       1 | Hridayesh More               |  141 | Ajay More                    |
|       2 | Rahul Agarwal                |  130 | Krish sawant                 |
|       2 | Rahul Agarwal                |  142 | vijay Jadhav                 |
|       3 | Abhishek Ahuja               |   26 | Khushi Lad                   |
|       3 | Abhishek Ahuja               |  143 | Dhanush Jadhav               |
|       3 | Abhishek Ahuja               |  149 | Priyanka Jadhav              |
|       4 | Aditya Apte                  |  144 | Prabhas Jadhav               |
|       5 | Amit Babu                    |   27 | Anu More                     |
|       5 | Amit Babu                    |  109 | Harish Jadhav                |
|       5 | Amit Babu                    |  145 | Alia Lad                     |
|       6 | Mahesh Basu                  |  146 | Kirti Dayal                  |
|       7 | Rohit Batra                  |  147 | Pooja Lad                    |
|       8 | Yash Bedi                    |  128 | Rutvik Dayal                 |
|       9 | Ankit Agarwal                |  111 | Pranay More                  |
|      10 | Shyam More                   |   29 | Lily sawant                  |
|      10 | Shyam More                   |  126 | Pranav More                  |
|      11 | Deepak More                  | NULL | NULL                         |
|      12 | Aryan Bhatt                  |  108 | Sarah More                   |
|      12 | Aryan Bhatt                  |  120 | Akash More                   |
|      13 | Raj Jadhav                   | NULL | NULL                         |
|      14 | Arjun Sawant                 | NULL | NULL                         |
|      15 | Manoj More                   |  140 | Salman sawant                |
|      16 | priya More                   |   32 | Kavya Jadhav                 |
      17 | Tanya Apte                   | NULL | NULL                         |
      18 | Priyanka More                | NULL | NULL                         |
      19 | Divya Ahuja                  |   35 | Ria sawant                   |
      20 | Tanvi Babu                   | NULL | NULL                         |
      21 | Ishita Jadhav                |  121 | Paras Lad                    |
      22 | Vani More                    |   99 | Dilmini sawant               |
      22 | Vani More                    |  107 | Ishika sawant                |
      23 | Anjali Agarwal               |   24 | Rashi sawant                 |
      24 | Shreya More                  |   28 | Angel Lad                    |
      25 | Riya Basu                    |  139 | Sharaukh sawant              |
      26 | Sneha Sawant                 | NULL | NULL                         |
      27 | Gayatri Bhatt                |  129 | Sonu Lad                     |
      28 | Varsha Batra                 | NULL | NULL                         |
      29 | Ira More                     | NULL | NULL                         |
      30 | Sanjana Jadhav               |  123 | Shashank Jadhav              |
      31 | Nikita Ahuja                 | NULL | NULL                         |
      32 | Vivek More                   |  114 | Jayesh sawant                |
      33 | Parth Sawant                 |   31 | Diksha sawant                |
      34 | Soham Agarwal                |  113 | Yash Lad                     |
      35 | Ajith More                   |  110 | Ajeet sawant                 |
      35 | Ajith More                   |  138 | Akshay Lad                   |
      36 | Abhi Apte                    |   36 | Dia Lad                      |
      36 | Abhi Apte                    |   37 | Sam sawant                   |
      36 | Abhi Apte                    |  119 | Deep sawant                  |
      37 | Pratik More                  | NULL | NULL                         |
      38 | Rishab Basu                  | NULL | NULL                         |
      39 | Virat Babu                   |  115 | Soham sawant                 |
```

```
 40 | Shreyas More                   | 124 | Shail sawant            |
 41 | Bumrah Ahuja                   | NULL | NULL                   |
 42 | Jay More                       | 116 | Shrutik More            |
 43 | Tanu Jadhav                    | NULL | NULL                   |
 44 | Smriti Bedi                    | 112 | Parag sawant            |
 44 | Smriti Bedi                    | 148 | Shruti More             |
 45 | Radha Bhatt                    |  30 | Sarah More              |
 46 | Pooja Sawant                   |  34 | Niti More               |
 47 | Diya Agarwal                   | 117 | Shekar sawant           |
 47 | Diya Agarwal                   | 131 | Abhi More               |
 48 | Divya More                     | NULL | NULL                   |
 49 | Prachi Batra                   | 118 | Sumit Dayal             |
 50 | Arti Basu                      | 125 | Sunil Jadhav            |
 50 | Arti Basu                      | 132 | John sawant             |
 51 | Sam Jadhav                     | 133 | Shlok sawant            |
 52 | Mitali Ahuja                   | 134 | Alok Jadhav             |
 53 | Ajeet Bedi                     | NULL | NULL                   |
 54 | Atul Babu                      | 136 | Paaus Dayal             |
 55 | Karan Agarwal                  | 122 | Rajeev sawant           |
 55 | Karan Agarwal                  | 137 | Varun sawant            |
 56 | Paras Apte                     | NULL | NULL                   |
+----------+-------------------------+------+-------------------------+
```

o **Sub Query:**

1.**show plate_no drove by sam bahadur.**

> select
> plate_no from ambulance
> where s_id =
> (select s_id from staff where s_name = "Sam Bahadur");

```
+------------+
| plate_no   |
+------------+
| MH04ES3127 |
| MH04ES2128 |
| MH04ES0318 |
| MH04ES2128 |
+------------+
```

2.Get patient name along with its user mobile_number whos age is less than 18years and booked ICU ambulance.

select

concat(f_name," ",l_name),ref_u_id,location,

(select contact from user where user_id = ref_u_id) as contact

from patient where p_id =

(select distinct p_id from ambulance where p_id in (select p_id from patient p

where DATE_FORMAT(FROM_DAYS(DATEDIFF(NOW(),Date_of_birth)),

'%Y') + 0 <18) and type = "Intensive Care Unit (ICU) Ambulance");

```
+--------------------------+----------+----------+------------+
| concat(f_name," ",l_name) | ref_u_id | location | contact    |
+--------------------------+----------+----------+------------+
| Krish sawant             |        2 | badlapur | 9936458614 |
+--------------------------+----------+----------+------------+
```

3.Select user who booked more than 2 times.

```
select
* from user where user_id in
(select user_id from
(select user_id,row_number() over(partition by user_id) as r_n
from ambulance) t
where t.r_n>=6) ;
```

```
+---------+----------+---------+-----------------------+------------+
| user_id | f_name   | l_name  | email                 | contact    |
+---------+----------+---------+-----------------------+------------+
|       1 | Hridayesh | More    | hridayesh@gmail.com   | 7738756301 |
|       2 | Rahul    | Agarwal | Rahul@gmail.com       | 9936458614 |
|       5 | Amit     | Babu    | Amit@gmail.com        | 6869667930 |
|      10 | Shyam    | More    | Shyam@gmail.com       | 5304072160 |
|      12 | Aryan    | Bhatt   | Aryan@gmail.com       | 1575371522 |
|      16 | priya    | More    | priya@gmail.com       | 4827352756 |
|      19 | Divya    | Ahuja   | Divya@gmail.com       | 2432868179 |
|      22 | Vani     | More    | Vani@gmail.com        | 6988087182 |
|      35 | Ajith    | More    | Ajith@gmail.com       | 3241342288 |
|      39 | Virat    | Babu    | Virat@gmail.com       | 7295015429 |
|      40 | Shreyas  | More    | Shreyas@gmail.com     | 6195108224 |
|      44 | Smriti   | Bedi    | Smriti@gmail.com      | 9588570320 |
|      55 | Karan    | Agarwal | Karan@gmail.com       | 7738751201 |
+---------+----------+---------+-----------------------+------------+
```

4.Select user who cancelled booking or booking got cancelled by ambulance.

select
p_id,ref_u_id,concat(f_name," ",l_name)
from patient where p_id not in
(select p_id from ambulance);

```
+------+----------+----------------------------+
| p_id | ref_u_id | concat(f_name," ",l_name)  |
+------+----------+----------------------------+
|   24 |       23 | Rashi sawant               |
|   26 |        3 | Khushi Lad                 |
|   28 |       24 | Angel Lad                  |
|   30 |       45 | Sarah More                 |
|   31 |       33 | Diksha sawant              |
|   33 |        1 | Rashi Dayal                |
|   34 |       46 | Niti More                  |
|   36 |       36 | Dia Lad                    |
|   37 |       36 | Sam sawant                 |
|  107 |       22 | Ishika sawant              |
|  108 |       12 | Sarah More                 |
|  109 |        5 | Harish Jadhav              |
|  111 |        9 | Pranay More                |
|  113 |       34 | Yash Lad                   |
|  114 |       32 | Jayesh sawant              |
|  116 |       42 | Shrutik More               |
|  117 |       47 | Shekar sawant              |
|  118 |       49 | Sumit Dayal                |
|  119 |       36 | Deep sawant                |
|  121 |       21 | Paras Lad                  |
|  123 |       30 | Shashank Jadhav            |
|  124 |       40 | Shail sawant               |
|  125 |       50 | Sunil Jadhav               |
|  126 |       10 | Pranav More                |
|  127 |        1 | Rishikesh Jadhav           |
|  128 |        8 | Rutvik Dayal               |
|  129 |       27 | Sonu Lad                   |
|  131 |       47 | Abhi More                  |
|  132 |       50 | John sawant                |
|  133 |       51 | Shlok sawant               |
|  134 |       52 | Alok Jadhav                |
|  136 |       54 | Paaus Dayal                |
|  137 |       55 | Varun sawant               |
|  138 |       35 | Akshay Lad                 |
|  139 |       25 | Sharaukh sawant            |
|  140 |       15 | Salman sawant              |
|  141 |        1 | Ajay More                  |
|  142 |        2 | vijay Jadhav               |
|  143 |        3 | Dhanush Jadhav             |
|  144 |        4 | Prabhas Jadhav             |
|  145 |        5 | Alia Lad                   |
|  146 |        6 | Kirti Dayal                |
|  147 |        7 | Pooja Lad                  |
|  149 |        3 | Priyanka Jadhav            |
+------+----------+----------------------------+
```

5.Find the name of employee who make most trip.

select

s_name from staff where s_id in

(select distinct s_id from

(select s_id,row_number() over(partition by s_id) as r_n from ambulance) t

where t.r_n >5);

```
+-------------------+
|  s_name           |
+-------------------+
|  Mahendra Bahubali |
|  Mogambo          |
+-------------------+
```

6.Find the user who booked Advanced life Support Ambulance.

select

distinct user_id from ambulance

where type = "Advanced Life Support (ALS) Ambulances";

```
+---------+
| user_id |
+---------+
|       1 |
|       5 |
|      35 |
+---------+
```

Stored Procedure

1.Generate a bill for patient.

MariaDB [ambulance_booking_system]> create procedure bill(in pid int)

-> begin

-> select a.user_id,a.p_id,a.type,at.price from ambulance a inner join ambulance_type_cost at on a.type = at.type group by p_id having p_id = pid;

-> select a.user_id,a.p_id,a.t_id,t.rate from ambulance a inner join tool t on a.t_id = t.t_id where p_id = pid;

 -> select u.user_id,a.type,a.p_id,(sum(t.rate) + at.price) as total_amount from user as u inner join ambulance as a inner join ambulance_type_cost as at inner join tool as t on u.user_id = a.user_id and a.type = at.type and a.t_id=t.t_id group by a.p_id having a.p_id = pid;

-> end

-> //

```
MariaDB [ambulance_booking_system]> call bill(29);
```

Output:

```
+---------+------+----------------------------------------+-------+
| user_id | p_id | type                                   | price |
+---------+------+----------------------------------------+-------+
|      10 |   29 | Intensive Care Unit (ICU) Ambulance    | 10000 |
+---------+------+----------------------------------------+-------+
1 row in set (0.001 sec)

+---------+------+------+------+
| user_id | p_id | t_id | rate |
+---------+------+------+------+
|      10 |   29 | 6000 | 2000 |
|      10 |   29 | 6016 | 5000 |
|      10 |   29 | 6020 | 2000 |
+---------+------+------+------+
3 rows in set (0.005 sec)

+---------+----------------------------------------+------+--------------+
| user_id | type                                   | p_id | total_amount |
+---------+----------------------------------------+------+--------------+
|      10 | Intensive Care Unit (ICU) Ambulance    |   29 |        19000 |
+---------+----------------------------------------+------+--------------+
```