

2018

# Database Management System (OMIS 652)

## Group Project: Mediseva Surgical Hospital

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## **Project Description:**

MEDISEVA is a surgical hospital established in 2018, located in Chicago, USA. It is prestigious for performing different surgeries in numerous specializations and particularly capable of handling Trauma and crisis circumstances. MEDISEVA keeps up a solid database framework to deal with every one of the information related to the hospital. It additionally gives a chance to get alluded by different hospitals.

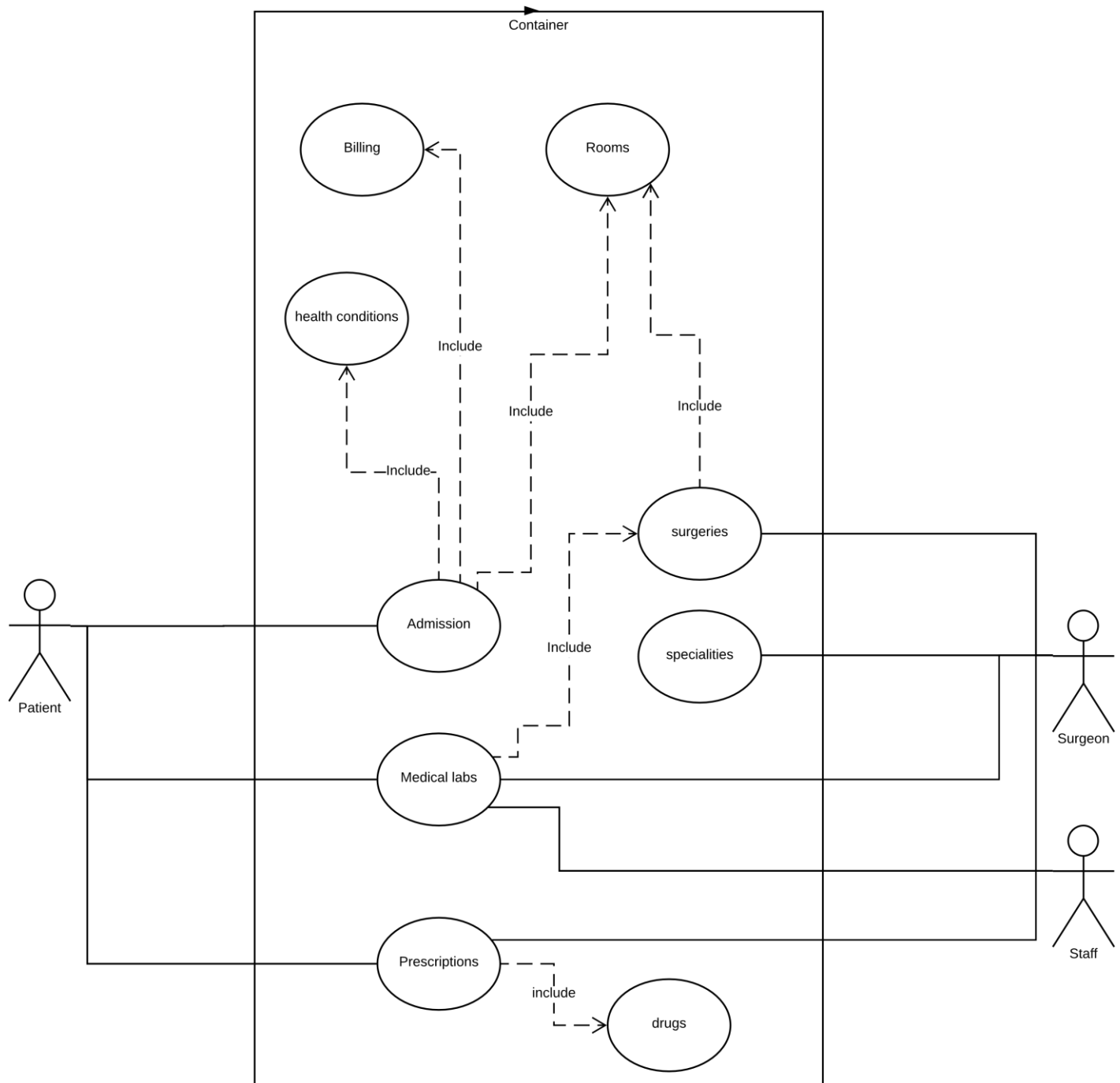
MEDISEVA has renowned Surgeons with expertise in numerous fields in charge of dealing with the patients with characterized medical procedures. There is likewise supporting staff to help the specialists. Patients can be admitted directly in to the hospital without any consultation/Appointment. In many situations he would be referred by a general doctor to this hospital. The hospital operates 24/7 and maintains the contact details of the staff members to be accessible at any emergency situations.

A patient with certain health conditions at first gets admitted into the hospital. There are different Rooms in the hospital and every patient is assigned a room. The patient is assigned an ID and given a form to fill out his/her details which are recorded into the database. According to the current health condition of the patient, explicit specialist is assigned to the patient. The surgeon examines the patient and requests certain lab tests to be conducted in the Medical Laboratory. In view of the lab test reports, Surgeons settle on the surgery to be performed in an explicit Operating Room (OR) based on its availability.

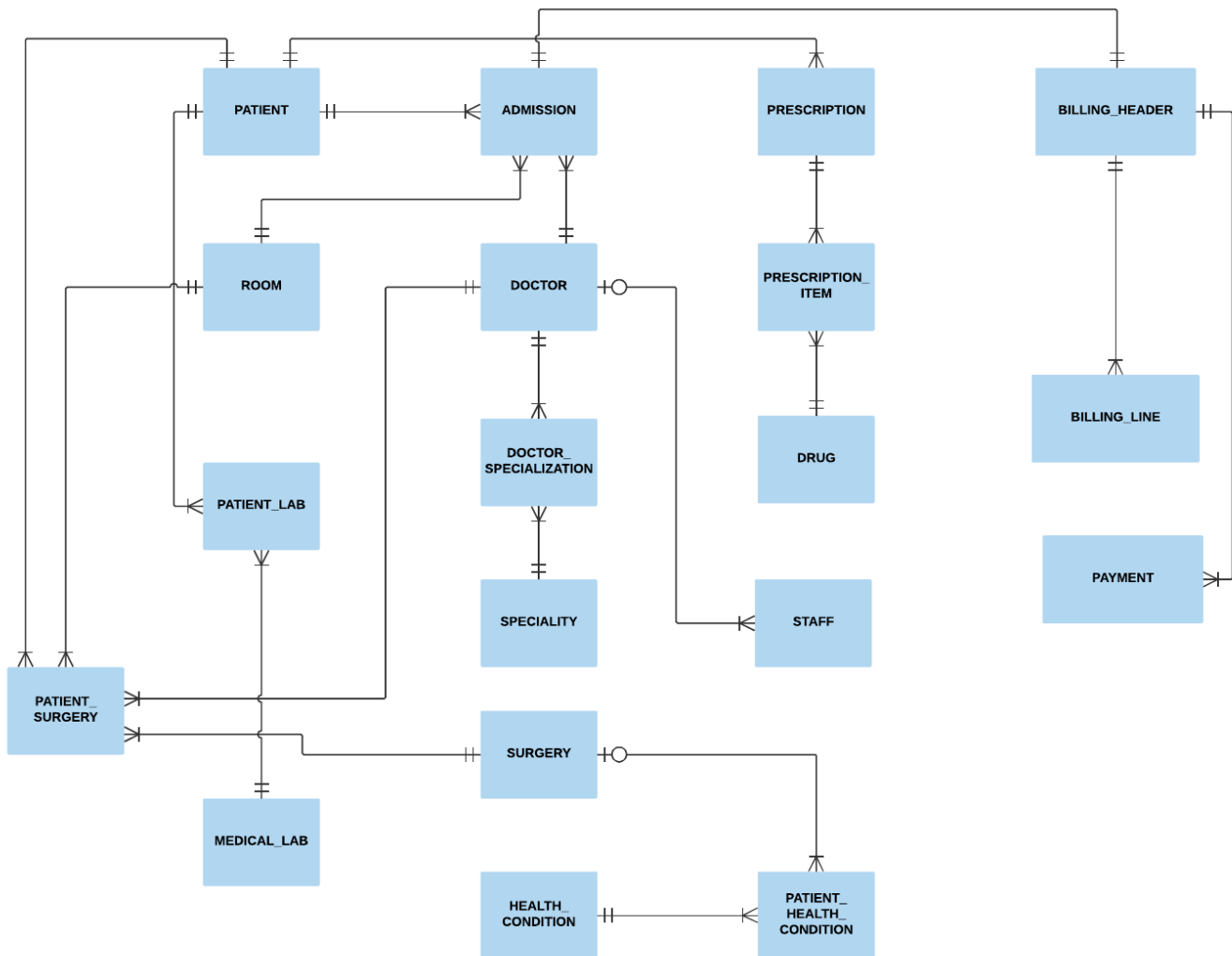
The specialists at MEDISEVA can prescribe certain medications amid medical procedure/treatment/release from the Pharmacy. Each surgery has a unique cost and the patients are charged accordingly. At the point when a patient gets admitted to the hospital, the charging procedure is started which mulls over, every one of the charges from the admission to release and a final bill is generated to the patient while discharge. The patients at MEDISEVA are allowed to pay the full amount/partial amount in the bill. Once the patient pays the entire amount, the patient record is closed.

MEDISEVA can perform every one of the activities effectively and proficiently because of the trustworthiness of the information in the database framework guaranteeing exactness and consistency.

## Use case Diagram:



## ERD Diagram:

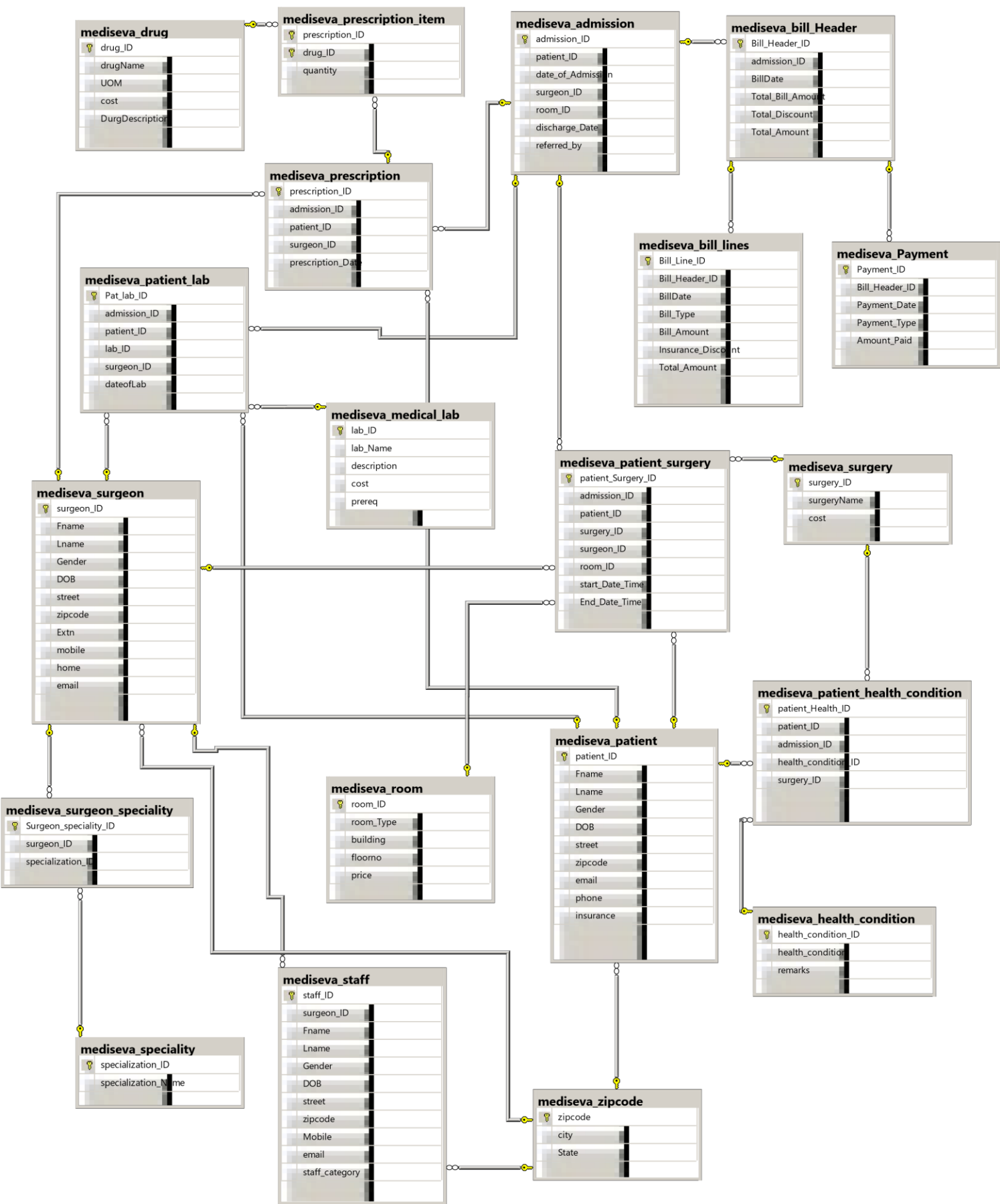


## Data Model:

[illegible]

	medisava_patient_surgery				medisava_surgery				medisava_health_condition				medisava_patient_health_condition
PK	Pat_Sur_ID		PK		Surgery_ID		PK		Health_Condition_ID		PK		Patient_Health_ID
FK	Admission_ID				Surgery_Name				Health_Condition		FK		Patient_ID
FK	Patient_ID				Cost				Remarks		FK		Admission_ID
FK	Surgery_ID										FK		Health_Condition_ID
FK	surgeon_ID										FK		Surgery_ID
FK	Room_ID												
	Start_Date_Time												
	End_Date_Time												
	medisava_rooms				medisava_bill_Lines				medisava_bill_Header				medisava_Payment
PK	Room_ID		PK		Bill_Line_ID		PK		Bill_Header_ID		PK		Payment_ID
	Room_Type		FK		Bill_Header_ID		FK		admission_ID		FK		Bill_Header_ID
	Building				BillIDate				Bill_Date				Payment_Date
	FloorNo				Bill_Type				Total_Bill_Amount				Payment_Type
	Price				Bill_Amount				Total_Discount				Amount_Paid
					Insurance_Discount				Total_Amount				
					Total_Amount								

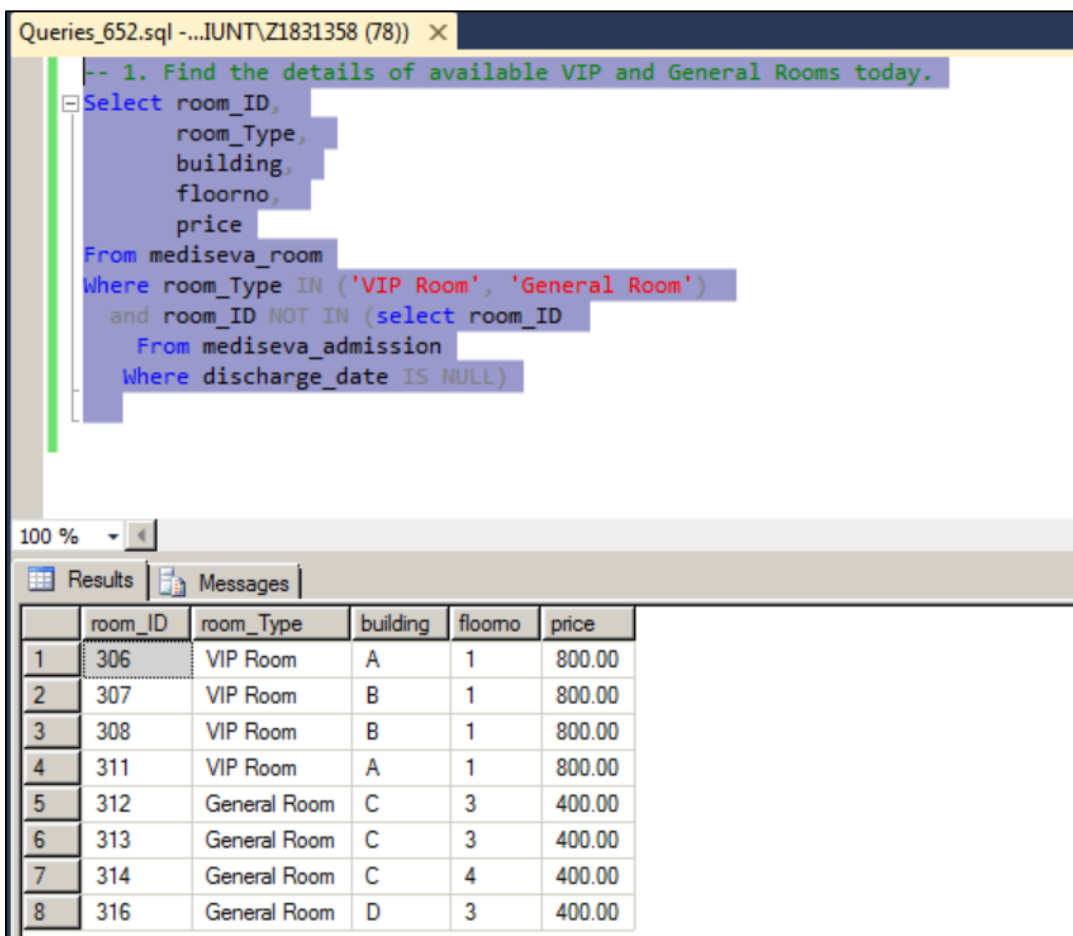
Database Diagram:



## Queries and Outputs

**Query#1:** Find the details of available VIP and General Rooms today.

```
Select room_ID,  
       room_Type,  
       building,  
       floorno,  
       price  
From mediseva_room  
Where room_Type IN ('VIP Room', 'General Room')  
and room_ID NOT IN (select room_ID  
                    From mediseva_admission  
                    Where discharge_date IS NULL);
```



The screenshot shows a SQL query editor window titled "Queries\_652.sql - ...JUNT\Z1831358 (78))". The query is as follows:

```
-- 1. Find the details of available VIP and General Rooms today.  
Select room_ID,  
       room_Type,  
       building,  
       floorno,  
       price  
From mediseva_room  
Where room_Type IN ('VIP Room', 'General Room')  
and room_ID NOT IN (select room_ID  
                    From mediseva_admission  
                    Where discharge_date IS NULL)
```

Below the query editor, the "Results" tab is active, showing a table with 8 rows and 6 columns: room\_ID, room\_Type, building, floorno, and price. The data is as follows:

	room_ID	room_Type	building	floorno	price
1	306	VIP Room	A	1	800.00
2	307	VIP Room	B	1	800.00
3	308	VIP Room	B	1	800.00
4	311	VIP Room	A	1	800.00
5	312	General Room	C	3	400.00
6	313	General Room	C	3	400.00
7	314	General Room	C	4	400.00
8	316	General Room	D	3	400.00

**Query#2:** Find the details of surgeries supported by each nurse.

```
select concat(mst.Fname,mst.Lname) Nurse_Name,  
       msur.surgeryName,  
       msur.cost,mps.surgeon_ID,  
       mps.start_Date_Time  
from mediseva_staff mst ,  
     mediseva_surgery msur,  
     mediseva_patient_surgery mps  
where mst.surgeon_ID = mps.surgeon_ID  
and mps.surgery_ID = msur.surgery_ID  
and mst.staff_category = 'Nurse'  
order by mst.staff_ID;
```

Queries\_652.sql -...IUNT\ZI831358 (78)\* x

```
-- 2. Find the details of surgeries a supported by each nurse.
select concat(mst.Fname,mst.Lname) Nurse_Name,
       msur.surgeryName,
       msur.cost,mps.surgeon_ID,
       mps.start_Date_Time Date
from mediseva_staff mst ,
     mediseva_surgery msur,
     mediseva_patient_surgery mps
where mst.surgeon_ID = mps.surgeon_ID
and mps.surgery_ID = msur.surgery_ID
and mst.staff_category = 'Nurse'
order by mst.staff_ID;
```

100 %

	Nurse_Name	surgeryName	cost	surgeon_ID	Date
7	SinghRobert	hip resurfacing	28000.00	3002	2018-11-14 01:00:00.000
8	SinghRobert	hip resurfacing	28000.00	3002	2018-11-20 02:00:00.000
9	HoverSue	hip resurfacing	28000.00	3002	2018-11-14 01:00:00.000
10	HoverSue	hip resurfacing	28000.00	3002	2018-11-20 02:00:00.000
11	BrownSussie	hip resurfacing	28000.00	3002	2018-11-14 01:00:00.000
12	BrownSussie	hip resurfacing	28000.00	3002	2018-11-20 02:00:00.000
13	SolarzSamantha	heart valve replacement	170000.00	3014	2018-11-21 02:00:00.000
14	SolarzSamantha	heart valve replacement	170000.00	3014	2018-05-07 02:00:00.000
15	HallJanice	heart valve replacement	170000.00	3014	2018-11-21 02:00:00.000
16	HallJanice	heart valve replacement	170000.00	3014	2018-05-07 02:00:00.000

**Query#3** - Find the details of patients who were currently admitted into the hospital

```
select *
from mediseva_patient
where patient_ID in
(select patient_ID
from mediseva_admission
where discharge_Date is null)
```

```
-- 3. Find the details of patients who were currently admitted into the hospital

select *
from mediseva_patient
where patient_ID in
(select patient_ID
from mediseva_admission
where discharge_Date is null)
```

100 %

	patient_ID	Fname	Lname	Gender	DOB	street	zipcode	email	phone	insurance
1	1001	Mark	Walberg	M	1977-02-21	9241 Fairway Dr	60016	mark33@gmail.com	2245567533	Y
2	1003	Johnny	Depp	M	1958-10-30	6578 Maker Dr	63353	jd@outlook.com	8224878093	Y
3	1006	Simran	Singh	F	1977-02-15	43543 Capitol Dr	62246	simi11@gmail.com	4864851317.2	N
4	1007	Eli	Hover	F	1982-06-04	298 Hill St	62769	Eli.h@hotmail.com	4592664688.8	Y
5	1010	Katie	Holmes	M	1984-10-11	1232 Takeda Pkwy	62401	holmes007@gmail.com	3776104803.6	Y
6	1013	Robert	Lachick	M	1958-01-30	351 Church St	62769	robbie@hotmail.com	2959544918.4	Y
7	1014	Andrew	Eller	M	1961-12-03	22 Techny Rd	62781	Andrew.eller@yahoo.com	2687358290	Y

**Query#4:** Number of Patients got admitted with Heart Attack Condition.

```
select COUNT(patient_ID) as numofheartattackpatients
from mediseva_patient_health_condition
where health_condition_ID in (select health_condition_ID
```



```

from mediseva_health_condition
where health_condition = 'Heart Attack')

```

```

-- 4. Number of Patients got admitted with Heart Attack Condition.
select COUNT(patient_ID) as numofheartattackpatients
from mediseva_patient_health_condition
where health_condition_ID in (select health_condition_ID
from mediseva_health_condition
where health_condition = 'Heart Attack')

```

	numofheartattackpatients
1	4

**Query#5:** Find the details of patients who got the heart valve replacement.

```

select mp.*
from mediseva_patient mp,
     mediseva_patient_surgery mps,
     mediseva_surgery ms
where mp.patient_ID = mps.patient_ID
     and mps.surgery_ID = ms.surgery_ID
     and ms.surgeryName = 'heart valve replacement'

```

```

--5. Find the details of patients who got the heart valve replacement.
select mp.*
from mediseva_patient mp,
     mediseva_patient_surgery mps,
     mediseva_surgery ms
where mp.patient_ID = mps.patient_ID
     and mps.surgery_ID = ms.surgery_ID
     and ms.surgeryName = 'heart valve replacement'

```

	patient_ID	Fname	Lname	Gender	DOB	street	zipcode	email	phone	insurance
1	1000	John	Wick	M	1986-10-21	455 Baker Street	63501	j.wick@hotmail.com	7584934839	Y
2	1003	Johnny	Depp	M	1958-10-30	6578 Maker Dr	63353	jd@outlook.com	8224878093	Y
3	1011	Mike	Pearson	M	1977-05-21	304 Wilmont Rd	62526	michael.pearson@gmail.com	3503918175.2	N
4	1003	Johnny	Depp	M	1958-10-30	6578 Maker Dr	63353	jd@outlook.com	8224878093	Y
5	1013	Robert	Lachick	M	1958-01-30	351 Church St	62769	robbie@hotmail.com	2959544918.4	Y

**Query#6.** Find the list of doctors (details) who were specialized in cardiology.

```

select *
from mediseva_surgeon ms,
     mediseva_surgeon_speciality mss,
     mediseva_speciality msp
where ms.surgeon_ID = mss.surgeon_ID
     and mss.specialization_ID = msp.specialization_ID
     and msp.specialization_Name = 'cardio'

```

```
--6. Find the list of doctors (details) who were specialized in cardiology.
select *
from mediseva_surgeon ms,
mediseva_surgeon_speciality mss,
mediseva_speciality msp
where ms.surgeon_ID = mss.surgeon_ID
and mss.specialization_ID = msp.specialization_ID
and msp.specialization_Name = 'cardio'
```

	surgeon_ID	Fname	Lname	Gender	DOB	street	zipcode	Extn	mobile	home	email
1	3000	Mike	Solarz	M	1975-02-04	6000 Hospital Dr	63501	23	2248594390	2343475974	Mike.Solarz@gmail.com
2	3002	Sue	Stewart	F	1957-08-21	South Adams St	62769	234	8473243243	7587654353	Sue.Stewart@gmail.com
3	3003	Larry	Morris	M	1967-01-17	640 W Washington	62363	523	8472334324	6457456435	Larry.Morris@gmail.com
4	3004	Tim	Rogers	M	1978-03-23	2305 West Georgia Street	63353	34	2343245325	3454354322	Tim.Rogers@gmail.com
5	3010	Andrew	Wood	M	1985-08-28	1200 E Tremont Street	62049	44	4357848478	9547432643	Andrew.Wood@gmail.com
6	3014	Bruce	Hill	M	1970-07-04	503 N Maple Street	62401	87	3465645763	2234324324	Bruce.Hill@gmail.com
7	3015	Robert	Scott	M	1982-09-11	2300 North Edward Street	62526	56	3454354322	2343245325	Robert.Scott@gmail.com

**Query#7:** List of patients for whom the medicine “Vicodin” is prescribed.

```
select mp.Fname, mp.Lname, mp.email, mp.phone
from mediseva_patient mp,
mediseva_prescription mpr,
mediseva_prescription_item mpi,
mediseva_drug md
where mp.patient_ID = mpr.patient_ID
and mpr.prescription_ID = mpi.prescription_ID
and mpi.drug_ID = md.drug_ID
and md.drugName= 'Vicodin'
```

```
-- 7. List of patients for whom the medicine “Vicodin”is prescribed.
select mp.Fname, mp.Lname, mp.email, mp.phone
from mediseva_patient mp,
mediseva_prescription mpr,
mediseva_prescription_item mpi,
mediseva_drug md
where mp.patient_ID = mpr.patient_ID
and mpr.prescription_ID = mpi.prescription_ID
and mpi.drug_ID = md.drug_ID
and md.drugName= 'Vicodin'
```

	Fname	Lname	email	phone
1	Mark	Walberg	mark33@gmail.com	2245567533
2	Johnny	Depp	jd@outlook.com	8224878093
3	Simran	Singh	simi11@gmail.com	4864851317.2

**Query#8.** List of doctors who prescribed the medicine “Vicodin”.

```
select ms.surgeon_ID, ms.Fname, ms.Lname,ms.Extn,ms.email,ms.home,ms.mobile
from mediseva_surgeon ms,
     mediseva_prescription mpr,
     mediseva_prescription_item mpi,
     mediseva_drug md
where ms.surgeon_ID = mpr.surgeon_ID
and mpr.prescription_ID = mpi.prescription_ID
and mpi.drug_ID = md.drug_ID
and md.drugName = 'Vicodin'
```

-- 8. List of doctors who prescribed the medicine “Vicodin”.

```
select ms.surgeon_ID, ms.Fname, ms.Lname,ms.Extn,ms.email,ms.home,ms.mobile
from mediseva_surgeon ms,
     mediseva_prescription mpr,
     mediseva_prescription_item mpi,
     mediseva_drug md
where ms.surgeon_ID = mpr.surgeon_ID
and mpr.prescription_ID = mpi.prescription_ID
and mpi.drug_ID = md.drug_ID
and md.drugName = 'Vicodin'
```

	surgeon_ID	Fname	Lname	Extn	email	home	mobile
1	3003	Larry	Morris	523	Larry.Morris@gmail.com	6457456435	8472334324
2	3006	Stephen	Green	43	Stephen.Green@gmail.com	6456457435	6456456456
3	3001	Lance	Hall	43	Lance.Hall@gmail.com	9823449726	2249435435

**Query#9.** Find the details of patients from city Des plaines

```
select *
from mediseva_patient mp,
     mediseva_zipcode mz
where mp.zipcode = mz.zipcode
and mz.city = 'Des Plaines'
```

--9. Find the details of patients from city Des plaines

```
select *
from mediseva_patient mp,
     mediseva_zipcode mz
where mp.zipcode = mz.zipcode
and mz.city = 'Des Plaines'
```

	patient_ID	Fname	Lname	Gender	DOB	street	zipcode	email	phone	insurance	zipcode
1	1001	Mark	Walberg	M	1977-02-21	9241 Fairway Dr	60016	mark33@gmail.com	2245567533	Y	60016
2	1008	Michael	Brown	M	1944-10-10	324 Dee Rd	60016	michael.c.brown@comcast.net	4320478060.4	Y	60016
3	1019	Barry	Allen	M	1950-05-01	657 Central Rd	60016	Barry@outlook.com	1326425148	Y	60016

**Query#10** Find the details of Doctors from State IL

```
select *
from mediseva_surgeon s,
     mediseva_zipcode z
where s.zipcode = z.zipcode
and state = 'IL'
```

```
-- 10 Find the details of Doctors from State IL
select *
from mediseva_surgeon s,
     mediseva_zipcode z
where s.zipcode = z.zipcode
and state = 'IL'
```

	surgeon_ID	Fname	Lname	Gender	DOB	street	zipcode	Extn	mobile	home	email
1	3003	Larry	Morris	M	1967-01-17	640 W Washington	62363	523	8472334324	6457456435	Larry.Morris@gmail.com
2	3006	Stephen	Green	M	1955-12-21	5445 Ave O	52627	43	6456456456	6456457435	Stephen.Green@gmail.c
3	3007	Joe	Bailey	M	1977-12-15	525 East Grant Street	61455	53	3453454356	4354363466	Joe.Bailey@gmail.com
4	3008	Ross	Cook	M	1988-10-12	200 S Cedar St	62565	23	7656345327	9238374396	Ross.Cook@gmail.com
5	3009	Chanlor	Bames	M	1980-07-03	201 East Pleasant Street	62568	65	9547432643	4357848478	Chanlor.Bames@gmail.c
6	3010	Andrew	Wood	M	1985-08-28	1200 E Tremont Street	62049	44	4357848478	9547432643	Andrew.Wood@gmail.co
7	3011	Mike	Price	M	1984-05-15	7th And Taylor	62471	34	9238374396	4354363466	Mike.Price@gmail.com
8	3012	Michael	Coleman	M	1975-05-05	1800 E Lake Shore Dr	60016	23	4354363466	3453454356	Michael.Coleman@gmail
9	3013	Joe	Riveira	M	1973-02-06	1215 Franciscan Dr	62056	65	6456457435	6456456456	Joe.Riveira@gmail.com
10	3014	Bruce	Hill	M	1970-07-04	503 N Maple Street	62401	87	3465645763	2234324324	Bruce.Hill@gmail.com
11	3019	Janice	Baker	F	1973-05-30	20733 N Broad Street	62626	11	2343475974	2248594390	Janice.Baker@gmail.cor

**Query11:** Find the details of patients who are currently in VIP rooms.

```
select Fname,Lname,email,phone
from mediseva_patient mp,
     mediseva_admission ma,
     mediseva_room mr
where mp.patient_ID = ma.patient_ID
and mr.room_ID = ma.room_ID
and mr.room_Type = 'VIP Room'
and ma.discharge_Date is NULL
```

```
-- Query11: Find the details of patients who are currently in VIP rooms.
select Fname,Lname,email,phone
from mediseva_patient mp,
     mediseva_admission ma,
     mediseva_room mr
where mp.patient_ID = ma.patient_ID
and mr.room_ID = ma.room_ID
and mr.room_Type = 'VIP Room'
and ma.discharge_Date is NULL
```

	Fname	Lname	email	phone
1	Simran	Singh	simi11@gmail.com	4864851317.2
2	Robert	Lachick	robbie@hotmail.com	2959544918.4
3	Eli	Hover	Eli.h@hotmail.com	4592664688.8

**Query#12:** Find the details of nurses who were allocated to surgeon - Tim Rogers

```
select *
from mediseva_staff ms,
     mediseva_surgeon msr
where ms.surgeon_ID = msr.surgeon_ID
      and msr.Fname = 'Tim'
      and msr.Lname = 'Rogers'
```

-- Query#12: Find the details of nurses who were allocated to surgeon - Tim Rogers

```
select *
from mediseva_staff ms,
     mediseva_surgeon msr
where ms.surgeon_ID = msr.surgeon_ID
      and msr.Fname = 'Tim'
      and msr.Lname = 'Rogers'
```

	staff_ID	surgeon_ID	Fname	Lname	Gender	DOB	street	zipcode	Mobile	email	st
1	214	3004	Reed	Steve	M	1961-12-03	503 N Maple Street	62401	3465645763	Reed_Steve@rediffmail.com	N
2	215	3004	Green	Stephen	M	1981-03-14	2300 North Edward Street	62526	3454354322	Green_Stephen@yahoo.com	N
3	216	3004	Bailey	Joe	M	1977-08-15	200 Healthcare Dr	62246	6457456435	Bailey_Joe@yahoo.com	N

**Query#13:** Find all the specialities the surgeon Sue stewart is specialized in

```
select *
from mediseva_speciality ms,
     mediseva_surgeon_speciality mss,
     mediseva_surgeon msr
where ms.specialization_ID = mss.specialization_ID
      and msr.surgeon_ID = mss.surgeon_ID
      and msr.Fname = 'Sue'
      and msr.Lname = 'Stewart'
```

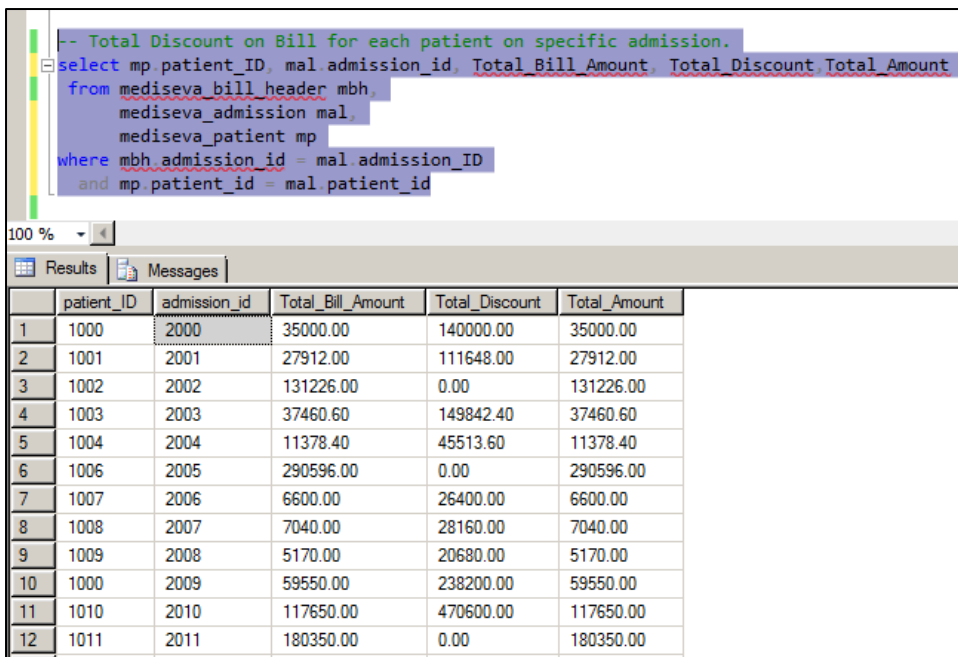
Queries\_652.sql -...JUNT\Z1831358 (78))\* X

```
-- Query#13: Find all the specialities the surgeon Sue stewart is specialized in.
select *
from mediseva_speciality ms,
     mediseva_surgeon_speciality mss,
     mediseva_surgeon msr
where ms.specialization_ID = mss.specialization_ID
      and msr.surgeon_ID = mss.surgeon_ID
      and msr.Fname = 'Sue'
      and msr.Lname = 'Stewart'
```

	specialization_ID	specialization_Name	Surgeon_speciality_ID	surgeon_ID	specialization_ID	surgeon_ID	Fname	Lname	Gender	DOB
1	7000	Cardio	702	3002	7000	3002	Sue	Stewart	F	1957-08-2
2	7001	Neuro	703	3002	7001	3002	Sue	Stewart	F	1957-08-2

**Query#14** Total Discount on Bill for each patient on specific admission.

```
select mp.patient_ID,
       mal.admission_id,
       Total_Bill_Amount,
       Total_Discount, Total_Amount
from   mediseva_bill_header mbh,
       mediseva_admission mal,
       mediseva_patient mp
where  mbh.admission_id = mal.admission_ID
and    mp.patient_id = mal.patient_id;
```



The screenshot shows a SQL query editor with the following query:

```
-- Total Discount on Bill for each patient on specific admission.
select mp.patient_ID, mal.admission_id, Total_Bill_Amount, Total_Discount, Total_Amount
from   mediseva_bill_header mbh,
       mediseva_admission mal,
       mediseva_patient mp
where  mbh.admission_id = mal.admission_ID
and    mp.patient_id = mal.patient_id
```

Below the query editor, the results are displayed in a table with 6 columns: patient\_ID, admission\_id, Total\_Bill\_Amount, Total\_Discount, and Total\_Amount. The table contains 12 rows of data.

	patient_ID	admission_id	Total_Bill_Amount	Total_Discount	Total_Amount
1	1000	2000	35000.00	140000.00	35000.00
2	1001	2001	27912.00	111648.00	27912.00
3	1002	2002	131226.00	0.00	131226.00
4	1003	2003	37460.60	149842.40	37460.60
5	1004	2004	11378.40	45513.60	11378.40
6	1006	2005	290596.00	0.00	290596.00
7	1007	2006	6600.00	26400.00	6600.00
8	1008	2007	7040.00	28160.00	7040.00
9	1009	2008	5170.00	20680.00	5170.00
10	1000	2009	59550.00	238200.00	59550.00
11	1010	2010	117650.00	470600.00	117650.00
12	1011	2011	180350.00	0.00	180350.00

**Query#15:** Patient Lab details

```
select patient_id, mml.lab_Name, mml.*
from   mediseva_medical_lab mml,
       mediseva_patient_lab mpl
where  mml.lab_ID = mpl.lab_ID
order by patient_ID
```



```
-- Query#14: Patient Lab details
```

```
select patient_id, mml.lab_Name, mml.*
from mediseva_medical_lab mml,
     mediseva_patient_lab mpl
where mml.lab_ID = mpl.lab_ID
order by patient_ID
```

	patient_id	lab_Name	lab_ID	lab_Name	description	cost	prereq
1	1000	Echocardiogram	4004	Echocardiogram	An echocardiogram, often referred to as a cardiac ec...	1000.00	Don't eat or drink anything for at least 1
2	1000	Blood Test	4012	Blood Test	A blood test is a laboratory analysis performed on a bl...	350.00	Not to eat for a few hours beforehand
3	1001	Echocardiogram	4004	Echocardiogram	An echocardiogram, often referred to as a cardiac ec...	1000.00	Don't eat or drink anything for at least 1
4	1001	Blood Test	4012	Blood Test	A blood test is a laboratory analysis performed on a bl...	350.00	Not to eat for a few hours beforehand
5	1002	Echocardiogram	4008	Echocardiogram	An echocardiogram checks how your heart's chambe...	5000.00	You might be asked not to eat or drink
6	1003	Chest X-ray	4015	Chest X-ray	A chest radiograph, colloquially called a chest X-ray, ...	1000.00	None
7	1003	Echocardiogram	4004	Echocardiogram	An echocardiogram, often referred to as a cardiac ec...	1000.00	Don't eat or drink anything for at least 1
8	1004	Blood Test	4012	Blood Test	A blood test is a laboratory analysis performed on a bl...	350.00	Not to eat for a few hours beforehand
9	1006	Blood Test	4012	Blood Test	A blood test is a laboratory analysis performed on a bl...	350.00	Not to eat for a few hours beforehand
10	1006	Heart scan	4009	Heart scan	Is the Heart CT Scan Covered by Insurance? A heart...	2200.00	Not to eat for a few hours beforehand
11	1007	Echocardiogram	4004	Echocardiogram	An echocardiogram, often referred to as a cardiac ec...	1000.00	Don't eat or drink anything for at least 1

### Query#16: Payment details.

```
select mbh.admission_ID, Total_Amount, mp.Amount_Paid
from mediseva_bill_Header mbh,
     mediseva_Payment mp
where mbh.Bill_Header_ID = mp.Bill_Header_ID
```

```
-- Query#16: Payment details.
```

```
select mbh.admission_ID, Total_Amount, mp.Amount_Paid
from mediseva_bill_Header mbh,
     mediseva_Payment mp
where mbh.Bill_Header_ID = mp.Bill_Header_ID
```

	admission_ID	Total_Amount	Amount_Paid
1	2000	35000.00	35000.00
2	2001	27912.00	27912.00
3	2002	131226.00	131226.00
4	2003	37460.60	37460.60
5	2004	11378.40	11378.40
6	2005	290596.00	290596.00
7	2006	6600.00	6600.00
8	2007	7040.00	7040.00
9	2008	5170.00	5170.00
10	2009	59550.00	59550.00
11	2010	117650.00	117650.00

### Query#17: Details of Surgeries done for each patients.

```
select mp.patient_ID, mp.Fname, mp.Lname, ms.surgeryName, mps.start_Date_Time
from mediseva_patient mp,
     mediseva_patient_surgery mps,
     mediseva_surgery ms
where mp.patient_ID = mps.patient_ID
and mps.surgery_ID = ms.surgery_ID
order by patient_ID
```

```
-- Query#17: Details of Surgeries done for each patients.
select mp.patient_ID, mp.Fname, mp.Lname, ms.surgeryName, mps.start_Date_Time
from mediseva_patient mp,
     mediseva_patient_surgery mps,
     mediseva_surgery ms
where mp.patient_ID = mps.patient_ID
     and mps.surgery_ID = ms.surgery_ID
order by patient_ID
```

	patient_ID	Fname	Lname	surgeryName	start_Date_Time
1	1000	John	Wick	heart valve replacement	2017-05-19 01:00:00.000
2	1000	John	Wick	Pancreas Transplant	2018-11-15 01:00:00.000
3	1001	Mark	Walberg	heart bypass	2018-03-19 02:00:00.000
4	1001	Mark	Walberg	heart bypass	2018-03-29 01:00:00.000
5	1002	Jim	Carrey	spinal fusion	2017-06-15 01:00:00.000
6	1003	Johnny	Depp	heart valve replacement	2018-10-27 01:00:00.000
7	1003	Johnny	Depp	heart valve replacement	2018-04-18 02:00:00.000
8	1004	Mark	Anthony	hip replacement	2017-06-17 01:00:00.000
9	1006	Simran	Singh	angioplasty	2017-08-12 01:00:00.000
10	1006	Simran	Singh	Kidney Transplant	2018-11-23 02:00:00.000

#### Query#18: Surgeon with more than one specialization

```
select ms.surgeon_ID, ms.Fname, ms.Lname
from mediseva_surgeon ms,
     mediseva_surgeon_speciality mss,
     mediseva_speciality msp
where ms.surgeon_ID = mss.surgeon_ID
     and mss.specialization_ID = msp.specialization_ID
group by ms.surgeon_ID, ms.Fname, ms.Lname
having count(*) > 1
```

```
-- Query#18: Surgeon with more than one specialization
select ms.surgeon_ID, ms.Fname, ms.Lname
from mediseva_surgeon ms,
     mediseva_surgeon_speciality mss,
     mediseva_speciality msp
where ms.surgeon_ID = mss.surgeon_ID
     and mss.specialization_ID = msp.specialization_ID
group by ms.surgeon_ID, ms.Fname, ms.Lname
having count(*) > 1
```

	surgeon_ID	Fname	Lname
1	3002	Sue	Stewart
2	3004	Tim	Rogers
3	3014	Bruce	Hill

#### Query#19 List of Patient who has not discharged, but surgery is completed.

```
select *
from mediseva_patient mp,
     mediseva_admission ma,
     mediseva_patient_surgery mps
where mp.patient_ID = ma.patient_ID
     and ma.discharge_Date is NULL
     AND ma.admission_ID = mps.admission_ID
```



--Query#19 List of Patient who has not discharged, but suregory is completed.

```
select *
from mediseva_patient mp,
     mediseva_admission ma,
     mediseva_patient_surgery mps
where mp.patient_ID = ma.patient_ID
      and ma.discharge_Date is NULL
      AND ma.admission_ID = mps.admission_ID
```

100 %

Results Messages

	patient_ID	Fname	Lname	Gender	DOB	street	zipcode	email	phone	insurance	adm
1	1001	Mark	Walberg	M	1977-02-21	9241 Fairway Dr	60016	mark33@gmail.com	2245567533	Y	20
2	1003	Johnny	Depp	M	1958-10-30	6578 Maker Dr	63353	jd@outlook.com	8224878093	Y	20
3	1006	Simran	Singh	F	1977-02-15	43543 Capitol Dr	62246	simi11@gmail.com	4864851317.2	N	20
4	1013	Robert	Lachick	M	1958-01-30	351 Church St	62769	robbie@hotmail.com	2959544918.4	Y	20
5	1014	Andrew	Eller	M	1961-12-03	22 Techry Rd	62781	Andrew.eller@yahoo.com	2687358290	Y	20
6	1007	Eli	Hover	F	1982-06-04	298 Hill St	62769	Eli.h@hotmail.com	4592664688.8	Y	20
7	1010	Katie	Holmes	M	1984-10-11	1232 Takeda Pkwy	62401	holmes007@gmail.com	3776104803.6	Y	20

Query#20: Patient details for the list of payment done by Cash.

```
select mbh.admission_ID, ma.patient_ID, mpat.Fname,mpat.Lname,mp.Payment_Type, mp.Amount_Paid
from mediseva_bill_Header mbh,
     mediseva_Payment mp,
     mediseva_patient mpat,
     mediseva_admission ma
where mbh.Bill_Header_ID = mp.Bill_Header_ID
      and mp.Payment_Type = 'Cash'
      and mpat.patient_ID = ma.patient_ID
      and mbh.admission_ID = ma.admission_ID
```

-- Query20: Patient details for the list of payment done by Cash.

```
select mbh.admission_ID, ma.patient_ID, mpat.Fname,mpat.Lname,mp.Payment_Type, mp.Amount_Paid
from mediseva_bill_Header mbh,
     mediseva_Payment mp,
     mediseva_patient mpat,
     mediseva_admission ma
where mbh.Bill_Header_ID = mp.Bill_Header_ID
      and mp.Payment_Type = 'Cash'
      and mpat.patient_ID = ma.patient_ID
      and mbh.admission_ID = ma.admission_ID
```

100 %

Results Messages

	admission_ID	patient_ID	Fname	Lname	Payment_Type	Amount_Paid
1	2006	1007	Eli	Hover	Cash	6600.00
2	2007	1008	Michael	Brown	Cash	7040.00
3	2008	1009	Nick	Jonas	Cash	5170.00

## **Conclusion:**

We gained knowledge on how to construct a strong database by implementing this project. We also gained hands on experience of how the database system works in real time. This project implementation made us understand the importance of a database in any business as its one of the major sources of accessing information.

Hospitals are the most important part of our lives. It is very much difficult for the hospital to maintain its day-to-day activities and records manually. That is why a database is required to keep records of all type of activities of a hospital.