DATABASE

FOR

HOSPITAL

Entities

- **Patient**
- *Medical Record*
- *Clinical Laboratory*
- *Doctor*
- *Appointments*
- *Patient Feedback*
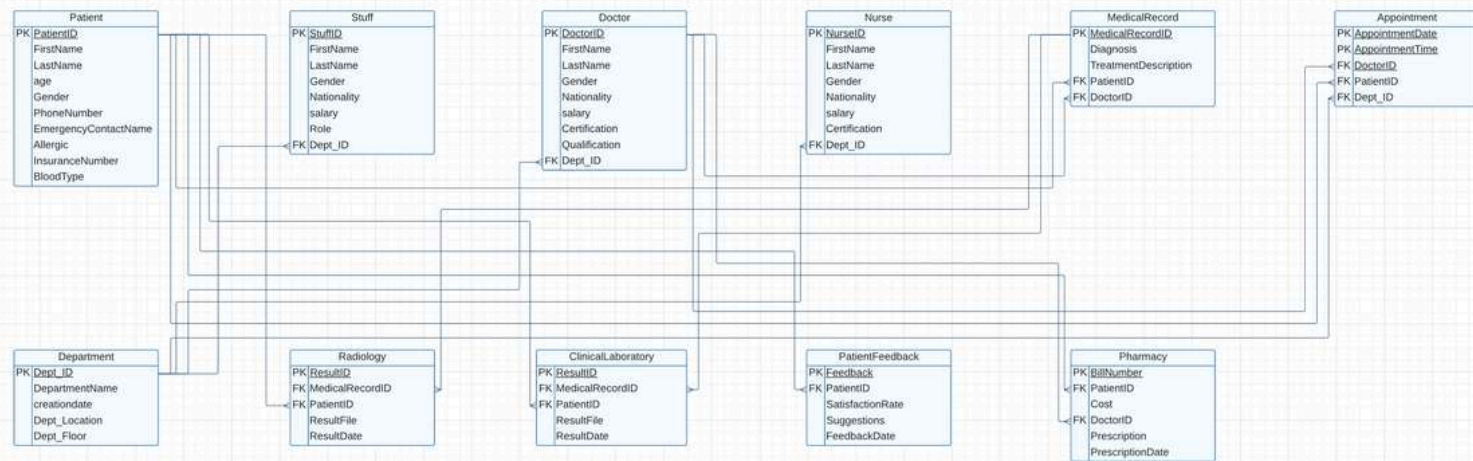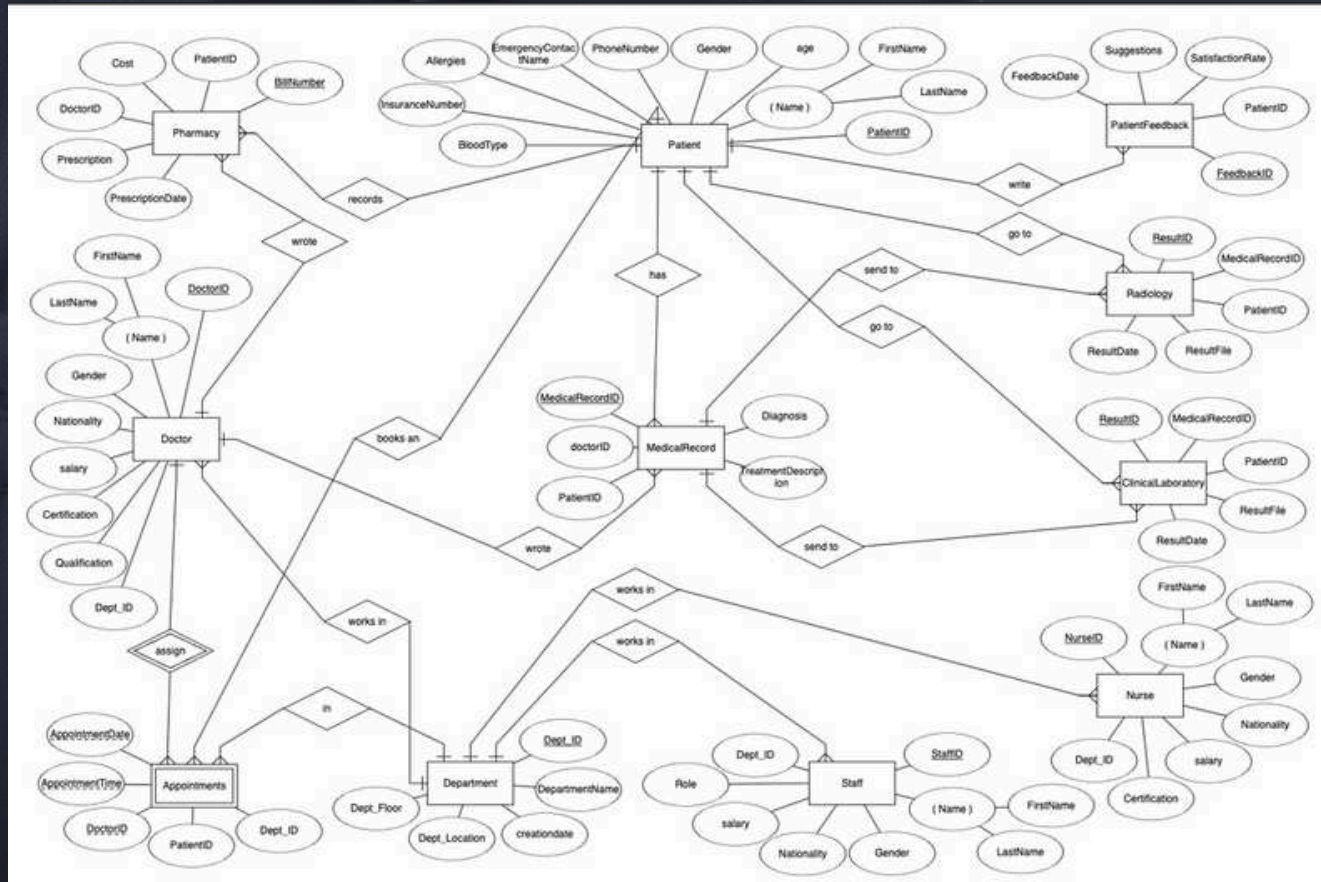- *Nurse*
- *Department*
- *Pharmacy*
- *Staff*
- *Radiology*

The Schema

Patient
- PK PatientID
- FirstName
- LastName
- age
- Gender
- PhoneNumber
- EmergencyContactName
- Allergic
- InsuranceNumber
- BloodType

Stuff
- PK StuffID
- FirstName
- LastName
- Gender
- Nationality
- salary
- Role
- FK Dept_ID

Doctor
- PK DoctorID
- FirstName
- LastName
- Gender
- Nationality
- salary
- Certification
- Qualification
- FK Dept_ID

Nurse
- PK NurseID
- FirstName
- LastName
- Gender
- Nationality
- salary
- Certification
- FK Dept_ID

MedicalRecord
- PK MedicalRecordID
- Diagnosis
- TreatmentDescription
- FK PatientID
- FK DoctorID

Appointment
- PK AppointmentDate
- PK AppointmentTime
- FK DoctorID
- FK PatientID
- FK Dept_ID

Department
- PK Dept_ID
- DepartmentName
- creationdate
- Dept_Location
- Dept_Floor

Radiology
- PK ResultID
- FK MedicalRecordID
- FK PatientID
- ResultFile
- ResultDate

ClinicalLaboratory
- PK ResultID
- FK MedicalRecordID
- FK PatientID
- ResultFile
- ResultDate

PatientFeedback
- PK Feedback
- FK PatientID
- SatisfactionRate
- Suggestions
- FeedbackDate

Pharmacy
- PK BillNumber
- FK PatientID
- Cost
- FK DoctorID
- Prescription
- PrescriptionDate

The ER-Diagram

DDL (Creation)

```sql
CREATE TABLE Patient (
    PatientID INT PRIMARY KEY,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    age INT,
    Gender CHAR(1) NOT NULL,
    PhoneNumber VARCHAR(15) not null,
    EmergencyContactName VARCHAR(100),
    Allergies VARCHAR(255),
    InsuranceNumber VARCHAR(50) ,
    BloodType CHAR(3) NOT NULL
);
```

Create table Patient

Create table Doctor

```sql
CREATE TABLE Doctor (
    DoctorID INT PRIMARY KEY,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Gender CHAR(1) NOT NULL,
    Nationality VARCHAR(50) NOT NULL,
    salary DECIMAL(10, 2) NOT NULL,
    Certification VARCHAR(100) NOT NULL,
    Qualification VARCHAR(100) NOT NULL,
    Dept_ID INT NOT NULL,
    FOREIGN KEY (Dept_ID) REFERENCES Department(Dept_ID)
);
```

Create table Nurse

```sql
CREATE TABLE Nurse (
    NurseID INT PRIMARY KEY,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Gender CHAR(1) NOT NULL,
    Nationality VARCHAR(50) NOT NULL,
    salary DECIMAL(10, 2) NOT NULL,
    Certification VARCHAR(100) NOT NULL,
    Dept_ID INT NOT NULL,
    FOREIGN KEY (Dept_ID) REFERENCES Department(Dept_ID)
);
```

Create table Staff

```sql
CREATE TABLE Staff (
    StaffID INT PRIMARY KEY,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Gender CHAR(1) NOT NULL,
    Nationality VARCHAR(50) NOT NULL,
    salary DECIMAL(10, 2) NOT NULL,
    Role VARCHAR(50) NOT NULL,
    Dept_ID INT NOT NULL,
    FOREIGN KEY (Dept_ID) REFERENCES Department(Dept_ID)
);
```

Create table MedicalRecord

```sql
CREATE TABLE MedicalRecord (
    MedicalRecordID INT PRIMARY KEY,
    Diagnosis VARCHAR(255) NOT NULL,
    TreatmentDescription VARCHAR(255) NOT NULL,
    PatientID INT NOT NULL,
    doctorID INT NOT NULL,
    FOREIGN KEY (PatientID) REFERENCES Patient(PatientID),
    FOREIGN KEY (doctorID) REFERENCES Doctor(DoctorID)
);
```

Create table Appointments

```sql
CREATE TABLE Appointments (
    AppointmentDate DATE NOT NULL,
    AppointmentTime TIME NOT NULL,
    DoctorID INT NOT NULL,
    PatientID INT NOT NULL,
    Dept_ID INT NOT NULL,
    PRIMARY KEY (AppointmentDate, AppointmentTime, DoctorID),
    FOREIGN KEY (PatientID) REFERENCES Patient(PatientID),
    FOREIGN KEY (DoctorID) REFERENCES Doctor(DoctorID),
    FOREIGN KEY (Dept_ID) REFERENCES Department(Dept_ID)
);
```

Create table Department

```sql
CREATE TABLE Department (
    Dept_ID INT PRIMARY KEY,
    DepartmentName VARCHAR(50) NOT NULL,
    creationdate date not null,
    Dept_Location VARCHAR(50),
    Dept_Floor INT,

);
```

Create table Clinical Laboratory

```sql
CREATE TABLE ClinicalLaboratory (
    ResultID INT PRIMARY KEY,
    MedicalRecordID INT NOT NULL,
    PatientID INT NOT NULL,
    ResultFile VARCHAR(255) NOT NULL,
    ResultDate DATE NOT NULL,
    FOREIGN KEY (MedicalRecordID) REFERENCES MedicalRecord(MedicalRecordID),
    FOREIGN KEY (PatientID) REFERENCES Patient(PatientID)
);
```

Create table Radiology

```sql
CREATE TABLE Radiology (
    ResultID INT PRIMARY KEY,
    MedicalRecordID INT NOT NULL,
    PatientID INT NOT NULL,
    ResultFile VARCHAR(255) NOT NULL,
    ResultDate DATE NOT NULL,
    FOREIGN KEY (MedicalRecordID) REFERENCES MedicalRecord(MedicalRecordID),
    FOREIGN KEY (PatientID) REFERENCES Patient(PatientID)
);
```

Create table PatientFeedback

```sql
CREATE TABLE PatientFeedback (
    FeedbackID INT PRIMARY KEY,
    PatientID INT NOT NULL,
    SatisfactionRate INT NOT NULL,
    Suggestions VARCHAR(255),
    FeedbackDate DATE NOT NULL,
    FOREIGN KEY (PatientID) REFERENCES Patient(PatientID)
);
```

Create table Pharmacy

```sql
CREATE TABLE Pharmacy (
    BillNumber INT PRIMARY KEY,
    PatientID INT NOT NULL,
    Cost DECIMAL(10, 2),
    DoctorID INT NOT NULL,
    Prescription VARCHAR(255) NOT NULL,
    PrescriptionDate DATE NOT NULL,
    FOREIGN KEY (PatientID) REFERENCES Patient(PatientID),
    FOREIGN KEY (DoctorID) REFERENCES Doctor(DoctorID)
);
```

DML (insertion) Patient

```sql
insert into Patient
values (110101,'Lana','Ahmead',28,'F','0505587433','Ahmead Nasser','Peanut','111-021-001','O+'),
(110102,'Lamar','Fahad',18,'F','0504599344','Waleed Fahad','No Allergies','112-022-221','O+'),
(110103,'Naif','Saleh',12,'M','0505170444','Saleh Ali','Soya','111-221,920','A+'),
(110104,'Leen','Sultan',17,'F','0405735728','Kadi Ali','Fish','No Insurance','O+'),
(110105,'Sultan','Mohammed',45,'M','0405735728','Asma Khalid','No Allergies','No Insurance','B+'),
(110106,'Dana','Mohamed',13,'F','0505464952','Nehad Abdullah','Eggs','112-989-030','AB+'),
(110107,'Hussam','Ali',34,'M','0500630222','Btool Ali','Fish','115-595-001','A+'),
(110108,'Arwa','Hamed',22,'F','0506146434','Nora Azzam','No Allergies','No Insurance','B-'),
(110109,'Rand','Fasial',5,'F','0506646433','Fasial Saud','Peanut','221-221-921','O+'),
(110110,'Bayan','Salman',32,'F','0505446443','Nawaf Fasial','No Allergies','224-443-343','O+'),
(110111,'Firas','Fasial',0,'M','0505446443','Bayan Salman','No Allergies','224-443-343','O+'),
(110112,'Abdullah','Rsheed',25,'M','0568850625','Rsheed Talal','Melon','No Insurance','B+'),
(110113,'Saleh','Ahmead',65,'M','0504894258','Noor Saleh','No Allergies','992-232-040','A+'),
(110114,'Luluah','Ibrahiam',85,'F','0539440445','Bedoor Saleh','No Allergies','119-083-321','AB+'),
(110115,'Nasser','Saleh',44,'M','0503023203','Nada Fahad','Shellfish','119-083-321','AB+'),
(110116,'Leena','Ahemad',8,'F','0538815577','Ahemad Khalid','No Allergies','No Insurance','B+'),
(110117,'Yousef','Zaid',52,'M','0501804638','Maha Naif','No Milk','662-910-123','O+'),
(110118,'Manar','Rayan',20,'F','0556794717','Rayan Abdulaziz','Milk','No Insurance','A-'),
(110119,'Omar','Osamah',15,'M','0537665745','Osamah Turki','No Allergies','506-911-128','B+'),
(110120,'Marah','Saad',17,'F','0505834258','Mona Jamal','Fish','No Insurance','A+'),
(110121,'Haya','Rasheed',45,'F','050743296834','Talal Turki','No Allergies','No Insurance','A+'),
(110122,'Nawaf','Rakan',12,'M','0501693371','Rakan Naif','Fish','222-934-848','B+'),
(110123,'Luna','Sultan',5,'F','0505587433','Lana Ahemed','No Allergies','111-021-001','B+'),
(110124,'Yahya','Bader',20,'M','0505624354','Bader Zaid','Sesame Seeds','757-983-003','AB+'),
(110125,'Sattam','Salman',34,'M','0505395532','Muneraah Salman','Sesame Seeds','No Insurance','A-'),
(110126,'Huda','Tamim',18,'F','0508974693','Tamim Nasser','Bananas','No Insurance','B+'),
(110127,'Osamah','Husham',35,'M','0505983665','Drra Husham','Eggs','No Insurance','A+'),
(110128,'Fahad','Abdulaziz',18,'M','0505564422','Abdulaziz Saleh','Kiwis','637-098-092','AB+'),
(110129,'Asmaa','Omar',49,'F','0553893275','Kadi Ibrahiam','No Allergies','983-993-001','AB+'),
(110130,'Hussam','Ibrahiam',10,'M','0553893275','Asmaa Omar','Kiwis','983-993-001','B+'),
(110131,'Yousef','Majed',49,'M','0509712764','Majed Yousef','No Allergies','No Insurance','A+'),
(110132,'Maha','Ibrahiam',25,'F','0557632211','Ibrahiam Nawaf','Peanut','No Insurance','O+'),
(110133,'Khalid','Abdelrahman',29,'M','0505067433','Abdelrahman Saud','Peanut','999-878-444','O+'),
(110134,'Saud','Fars',75,'M','0505058988','Farah Fars','No Allergies','No Insurance','B+'),
(110135,'Farah','Isa',18,'F','0505999887','Isa Mohammed','Peanut','999-000-123','O+'),
(110136,'Marwan','Malk',32,'M','0509871234','Malk Mohammed','No Allergies','No Insurance','B+'),
(110137,'Lama','Abdullah',17,'F','0508932278','Abdullah Saud','Strawberries','876-999-003','AB+'),
(110138,'Hussa','Tariq',53,'F','0508974666','Dania Fars','No Allergies','No Insurance','O+'),
(110139,'Suleiman','Hamed',27,'M','0500057489','Hamed Rakan','Strawberries','No Insurance','B-'),
(110140,'Saad','Malk',16,'M','0509876432','Malk Khalid','Peanut','No Insurance','A+');
```

Patient

	PatientID	FirstName	LastName	age	Gender	PhoneNumber	EmergencyContactName	Allergies	InsuranceNumber	BloodType
1	110101	Lana	Ahmead	28	F	0505587433	Ahmead Nasser	Peanut	111-021-001	O+
2	110102	Lamar	Fahad	18	F	0504599344	Waleed Fahad	No Allergies	112-022-221	O+
3	110103	Naif	Saleh	12	M	0505170444	Saleh Ali	Soya	111-221,920	A+
4	110104	Leen	Sultan	17	F	0405735728	Kadi Ali	Fish	No Insurance	O+
5	110105	Sultan	Mohammed	45	M	0405735728	Asma Khalid	No Allergies	No Insurance	B+
6	110106	Dana	Mohamed	13	F	0505464952	Nehad Abdullah	Eggs	112-989-030	AB+
7	110107	Hussam	Ali	34	M	0500630222	Btool Ali	Fish	115-595-001	A+
8	110108	Arwa	Hamed	22	F	0506146434	Nora Azzam	No Allergies	No Insurance	B-
9	110109	Rand	Fasial	5	F	0506646433	Fasial Saud	Peanut	221-221-921	O+
10	110110	Bayan	Salman	32	F	0505446443	Nawaf Fasial	No Allergies	224-443-343	O+
11	110111	Firas	Fasial	0	M	0505446443	Bayan Salman	No Allergies	224-443-343	O+
12	110112	Abdullah	Rsheed	25	M	0568850625	Rsheed Talal	Melon	No Insurance	B+
13	110113	Saleh	Ahemad	65	M	0504894258	Noor Saleh	No Allergies	992-232-040	A+
14	110114	Luluah	Ibrahiam	85	F	0539440445	Bedoor Saleh	No Allergies	119-083-321	AB+
15	110115	Nasser	Saleh	44	M	0503023203	Nada Fahad	Shellfish	119-083-321	AB+
16	110116	Leena	Ahemad	8	F	0538815577	Ahmad Khalid	No Allergies	No Insurance	B+
17	110117	Yousef	Zaid	52	M	0501804638	Maha Naif	No Milk	662-910-123	O+
18	110118	Manar	Rayan	20	F	0556794717	Rayan Abdulaziz	Milk	No Insurance	A-
19	110119	Omar	Osamah	15	M	0537665745	Osamah Turki	No Allergies	506-911-128	B+
20	110120	Marah	Saad	17	F	0505834258	Mona Jamal	Fish	No Insurance	A+
21	110121	Haya	Rasheed	45	F	050743296834	Talal Turki	No Allergies	No Insurance	A+
22	110122	Nawaf	Rakan	12	M	0501693371	Rakan Naif	Fish	222-934-848	B+
23	110123	Luna	Sultan	5	F	0505587433	Lana Ahemed	No Allergies	111-021-001	B+
24	110124	Yahya	Bader	20	M	0505624354	Bader Zaid	Sesame Seeds	757-983-003	AB+
25	110125	Sattam	Salman	34	M	0505395532	Muneraah Salman	Sesame Seeds	No Insurance	A-
26	110126	Huda	Tamim	18	F	0508974693	Tamim Nasser	Bananas	No Insurance	B+
27	110127	Osamah	Husham	35	M	0505983665	Drra Husham	Eggs	No Insurance	A+
28	110128	Fahad	Abdulaziz	18	M	0505564422	Abdulaziz Saleh	Kiwis	637-098-092	AB+
29	110129	Asmaa	Omar	49	F	0553893275	Kadi Ibrahim	No Allergies	983-993-001	AB+
30	110130	Hussam	Ibrahiam	10	M	0553893275	Asmaa Omar	Kiwis	983-993-001	B+
31	110131	Yousef	Majed	49	M	0509712764	Majed Yousef	No Allergies	No Insurance	A+
32	110132	Maha	Ibrahiam	25	F	0557632211	Ibrahiam Nawaf	Peanut	No Insurance	O+
33	110133	Khalid	Abdelrahman	29	M	0505067433	Abdelrahman Saud	Peanut	999-878-444	O+
34	110134	Saud	Fars	75	M	0505058988	Farah Fars	No Allergies	No Insurance	B+
35	110135	Farah	Isa	18	F	0505999887	Isa Mohammed	Peanut	999-000-123	O+
36	110136	Marwan	Malk	32	M	0509871234	Malk Mohammed	No Allergies	No Insurance	B+
37	110137	Lama	Abdullah	17	F	0508932278	Abdullah Saud	Strawberries	876-999-003	AB+
38	110138	Hussa	Tariq	53	F	0508974666	Dania Fars	No Allergies	No Insurance	O+
39	110139	Suleiman	Hamed	27	M	0500057489	Hamed Rakan	Strawberries	No Insurance	B-
40	110140	Saad	Malk	16	M	0509876432	Malk Khalid	Peanut	No Insurance	A+

```sql
INSERT INTO Doctor
VALUES (2201,'Diana','Geisser','F','American',40000,'MD,ABIM','Cardiologist',00058),
(2202,'Majed','Yaseer','M','Saudi',38000,'MD','Paediatric Cardiologist',00058),
(2203,'Tala','Ahemad','F','Saudi',30000,'MD','Cardiologist',00058),
(2204,'George', 'Chalkiadis','M','Saudi',60000,'MD,BLS','Anesthesiologist',03208),
(2205,'Saud','Turki','M','Saudi',56000,'MD,ABA','Consultant Anaesthetist',03208),
(2206,'Marwa','Osamah','F','Saudi',35000,'MD','Haematologist',02055),
(2207,'Layan','Sami','F','Syrian',40000,'MD','Consultant Haematologist',02055),
(2208,'Marah','Abdulkarim','F','Saudi',60000,'MD,ABD','Dermatologists',03137),
(2209,'Paul', 'Curnow','M','American',50000,'MD','Dermatologists',03137),
(2210,'Kathleen', 'McGrath','F','American',28000,'DO','Gastroenterology',01048),
(2211,'Naif', 'Faisal','M','Saudi',32000,'MD,ABIM','Gastroenterology',01048),
(2212,'Sarah', 'Curnow','F','British',34000,'MD','Neurologists',06044),
(2213,' Michael', 'Hayman','F','British',34000,'MD','Neurologists',06044),
(2214,'Rania','Rasheed','F','Saudi',25000,'CNS,RDN','Nutrition Consultant',00203),
(2215,'Rayoof','Khalid','F','Saudi',25000,'CNS','Nutrition Consultant',00203),
(2216,'Saleh','Naif','M','Saudi',28000,'MBBS, FRANZCO','Ophthalmologist',00046),
(2217,'Wendy ','Marshman','F','American',32000,' MBBS, MD, FRANZCO, FRACS','Ophthalmologist',00046),
(2218,'Baseel','Tariq','M','Saudi',29000,'MBBS, FRANZCO','Ophthalmologist',00046),
(2219,'Mariam','Shaker','F','Pakstani',31000,'ENT,MD','Otolaryngologist',02042),
(2220,'Sam','Davies','M','American',36000,'ENT,MD','Otolaryngologist',02042),
(2221,'Rada','Saleh','F','Saudi',30000,'DPT','Doctor Of Physical Therapy',00119),
(2222,'Maha','Ali','F','Saudi',30000,'DPT','Doctor Of Physical Therapy',00119),
(2223,'Adeel','Rakan','M','Saudi',34000,' Bachelors degree in Psychology,MSP ','Therpaist',01202),
(2224,'Zaid','Marwan','M','Saudi',34000,'Bachelors degree in Psychology,MAP','Therpaist',01202),
(2225,'John','Hutson','M','British',45000,'MD','Surgeon',00058),
(2226,'Juan','Bortagaray','M','British',45000,'MD','Surgeon',00058),
(2227,'Taraf','Abdelmohsen','F','Saudi',50000,'MD,FRACS','Surgeon',03137),
(2228,'Dalal','Abdalmajeed','F','Saudi',48000,'MD,FAAP','Surgeon',03137),
(2229,' David','Francis','M','American',53000,'BS,MD,DSc,FRACS, FAAP','Surgeon',04057),
(2230,'Shahad','Waleed','F','Egyptian',43000,'MD,ABU','Urologist',04057),
(2231,'Saber','Ramadan','M','Pakstani',33000,'MD','Urologist',04057),
(2232,'Azurah','Sami','F','Egyptian',45000,'MD,GYN,REI','Gynaecologist',00130),
(2233,'Mariam','Hussen','F','Saudi',44000,'MD,MIGS','Gynaecologist',00130),
(2234,'Kayne','Cornelis','M','American',40000,'DDS,MSc,PHD','Orthodontists',03111),
(2235,'Mashal','Abdulkarim','M','Saudi',40000,'BDSc, MDSc, MRACDS (Ortho), FRACDS','Orthodontists',03111),
(2236,'Jumanah','Mohammed','F','Saudi',44000,'BDSc, MRACDS (GDP)','Dental',03111),
(2237,'Ashraf','Hamad','M','Saudi',30000,' BHSc, MDent','Dental',03111),
(2238,'Mohammed', 'Abdelrahman', 'M', 'Saudi',54000, 'MD', 'Nephrologist',06044),
(2239,'Ling', 'Chen', 'F', 'Chinese',54000, 'MD', 'Nephrologist',06044),
(2240,'Rashed','Zyad','M','Saudi',51000,'MD','Oncologist',03045),
(2241,'Reem','Yousef','F','Saudi',50000,'MD','Oncologist',03045);
```

Doctor

	DoctorID	FirstName	LastName	Gender	Nationality	salary	Certification	Qualification	Dept_ID
1	2201	Diana	Geisser	F	American	40000.00	MD,ABIM	Cardiologist	58
2	2202	Majed	Yaseer	M	Saudi	38000.00	MD	Paediatric Cardiologist	58
3	2203	Tala	Ahemad	F	Saudi	30000.00	MD	Cardiologist	58
4	2204	George	Chalkiadis	M	Saudi	60000.00	MD,BLS	Anesthesiologist	3208
5	2205	Saud	Turki	M	Saudi	56000.00	MD,ABA	Consultant Anaesthetist	3208
6	2206	Marwa	Osamah	F	Saudi	35000.00	MD	Haematologist	2055
7	2207	Layan	Sami	F	Syrian	40000.00	MD	Consultant Haematologist	2055
8	2208	Marah	Abdulkarim	F	Saudi	60000.00	MD,ABD	Dermatologists	3137
9	2209	Paul	Curnow	M	American	50000.00	MD	Dermatologists	3137
10	2210	Kathleen	McGrath	F	American	28000.00	DO	Gastroenterology	1048
11	2211	Naif	Faisal	M	Saudi	32000.00	MD,ABIM	Gastroenterology	1048
12	2212	Sarah	Curnow	F	British	34000.00	MD	Neurologists	6044
13	2213	Michael	Hayman	F	British	34000.00	MD	Neurologists	6044
14	2214	Rania	Rasheed	F	Saudi	25000.00	CNS,RDN	Nutrition Consultant	203
15	2215	Rayoof	Khalid	F	Saudi	25000.00	CNS	Nutrition Consultant	203
16	2216	Saleh	Naif	M	Saudi	28000.00	MBBS, FRANZCO	Ophthalmologist	46
17	2217	Wendy	Marshman	F	American	32000.00	MBBS, MD, FRANZCO, FRACS	Ophthalmologist	46
18	2218	Baseel	Tariq	M	Saudi	29000.00	MBBS, FRANZCO	Ophthalmologist	46
19	2219	Mariam	Shaker	F	Pakstani	31000.00	ENT,MD	Otolaryngologist	2042
20	2220	Sam	Davies	M	American	36000.00	ENT,MD	Otolaryngologist	2042
21	2221	Rada	Saleh	F	Saudi	30000.00	DPT	Doctor Of Physical Therapy	119
22	2222	Maha	Ali	F	Saudi	30000.00	DPT	Doctor Of Physical Therapy	119
23	2223	Adeel	Rakan	M	Saudi	34000.00	Bachelors degree in Psychology,MSP	Therpaist	1202
24	2224	Zaid	Marwan	M	Saudi	34000.00	Bachelors degree in Psychology,MAP	Therpaist	1202
25	2225	John	Hutson	M	British	45000.00	MD	Surgeon	58
26	2226	Juan	Bortagaray	M	British	45000.00	MD	Surgeon	58
27	2227	Taraf	Abdelmohsen	F	Saudi	50000.00	MD,FRACS	Surgeon	3137
28	2228	Dalal	Abdalmajeed	F	Saudi	48000.00	MD,FAAP	Surgeon	3137
29	2229	David	Francis	M	American	53000.00	BS,MD,DSc,FRACS, FAAP	Surgeon	4057
30	2230	Shahad	Waleed	F	Egyptian	43000.00	MD,ABU	Urologist	4057
31	2231	Saber	Ramadan	M	Pakstani	33000.00	MD	Urologist	4057
32	2232	Azurah	Sami	F	Egyptian	45000.00	MD,GYN,REI	Gynaecologist	130
33	2233	Mariam	Hussen	F	Saudi	44000.00	MD,MIGS	Gynaecologist	130
34	2234	Kayne	Cornelis	M	American	40000.00	DDS,MSc,PHD	Orthodontists	3111
35	2235	Mashal	Abdulkarim	M	Saudi	40000.00	BDSc, MDSc, MRACDS (Ortho), FRACDS	Orthodontists	3111
36	2236	Jumanah	Mohammed	F	Saudi	44000.00	BDSc, MRACDS (GDP)	Dental	3111
37	2237	Ashraf	Hamad	M	Saudi	30000.00	BHSc, MDent	Dental	3111
38	2238	Mohammed	Abdelrahman	M	Saudi	54000.00	MD	Nephrologist	6044
39	2239	Ling	Chen	F	Chinese	54000.00	MD	Nephrologist	6044
40	2240	Rashed	Zyad	M	Saudi	51000.00	MD	Oncologist	3045
41	2241	Reem	Yousef	F	Saudi	50000.00	MD	Oncologist	3045

Nurse

```sql
INSERT INTO Nurse
VALUES
    (123201, 'Emily', 'Johnson', 'F', 'American', 20000, 'Certified Registered Nurse Anesthetist', 03208),
    (123202, 'Michael', 'Garcia', 'M', 'American', 22000, 'Certified Registered Nurse Anesthetist', 03208),
    (125801, 'Sophia', 'Jad', 'F', 'Egyptian', 22000, 'Certified Cardiac Nurse', 00058),
    (125802, 'Nada', 'Osamah', 'F', 'Saudi', 21000, 'Certified Cardiac Nurse', 00058),
    (125501, 'Loui', 'Abdelkader', 'M', 'Saudi', 25000, 'Certified Hematology Nurse', 02055),
    (125502, 'Husham', 'Fars', 'M', 'Saudi', 26000, 'Certified Hematology Nurse', 02055),
    (125701, 'Amal', 'Ameer', 'F', 'Saudi', 24000, 'Certified Urology Nurse', 04057),
    (125702, 'Hazm', 'Adeeb', 'M', 'Saudi', 22000, 'Certified Urology Nurse', 04057),
    (123001, 'Rama', 'Ali', 'F', 'Egyptian', 26000, 'Certified Gynecology Nurse', 00130),
    (123002, 'Joury', 'Hani', 'F', 'Saudi', 24000, 'Certified Gynecology Nurse', 00130),
    (123701, 'Ahad', 'Yousef', 'F', 'Saudi', 24000, 'Certified Dermatology Nurse', 03137),
    (123702, 'Maria', 'Mazn', 'F', 'Saudi', 21000, 'Certified Dermatology Nurse', 03137),
    (124601, 'Mazn', 'Hmood', 'M', 'Saudi', 23000, 'Certified Ophthalmic Nurse', 00046),
    (124602, 'Aram', 'Abdulaziz', 'F', 'Saudi', 22000, 'Certified Ophthalmic Nurse', 00046),
    (124801, 'Draa', 'Talal', 'F', 'Saudi', 22000, 'Certified Gastroenterology Nurse', 01048),
    (124802, 'Abdelkader', 'Aimen', 'M','Saudi', 25000, 'Certified Gastroenterology Nurse', 01048),
    (124201, 'Mashal', 'Hussen', 'M', 'Saudi', 23000, 'Certified Otolaryngology Nurse', 02042),
    (124202, 'Sarah', 'Saleh', 'F', 'Saudi', 23000, 'Certified Otolaryngology Nurse', 02042),
    (124501, 'Ghadi', 'Ahmed', 'F', 'Saudi', 20000, 'Certified Oncology Nurse', 03045),
    (124502, 'Albtool', 'Eyad', 'F', 'Saudi', 21000, 'Certified Oncology Nurse', 03045),
    (124401, 'Fouz', 'Ibrahiam', 'F', 'Saudi', 22000, 'Certified Neurology Nurse', 06044),
    (124402, 'Selena', 'Smith', 'F', 'American', 20000, 'Certified Neurology Nurse', 06044),
    (120301, 'Emma', 'Gomez', 'F', 'American', 21000, 'Certified Nutrition and Dietetics Nurse', 00203),
    (120302, 'Emily', 'Johnson', 'F','American', 23000, 'Certified Nutrition and Dietetics Nurse', 00203),
    (120201, 'Sophia', 'Khan', 'F', 'Pakistani', 23000, 'Certified Psychiatric Nurse', 01202),
    (120202, 'Ariana', 'Smith', 'F', 'American', 21000, 'Certified Psychiatric Nurse', 01202),
    (121101, 'Maria', 'Chang', 'F', 'Chinese', 22000, 'Certified Dental Nurse', 03111),
    (121102, 'Michael', 'Nguyen', 'M', 'Vietnamese', 23000, 'Certified Dental Nurse', 03111),
    (121901,'Hazza','Faisal','M','Saudi',22000,'Certified Physiotherapy Nurse',00119),
    (121902,'Husham','Hussen','M','Saudi',22000,'Certified Physiotherapy Nurse',00119);
```

Nurse

	NurseID	FirstName	LastName	Gender	Nationality	salary	Certification	Dept_ID
1	120201	Sophia	Khan	F	Pakistani	23000.00	Certified Psychiatric Nurse	1202
2	120202	Ariana	Smith	F	American	21000.00	Certified Psychiatric Nurse	1202
3	120301	Emma	Gomez	F	American	21000.00	Certified Nutrition and Dietetics Nurse	203
4	120302	Emily	Johnson	F	American	23000.00	Certified Nutrition and Dietetics Nurse	203
5	121101	Maria	Chang	F	Chinese	22000.00	Certified Dental Nurse	3111
6	121102	Michael	Nguyen	M	Vietnamese	23000.00	Certified Dental Nurse	3111
7	121901	Hazza	Faisal	M	Saudi	22000.00	Certified Physiotherapy Nurse	119
8	121902	Husham	Hussen	M	Saudi	22000.00	Certified Physiotherapy Nurse	119
9	123001	Rama	Ali	F	Egyptian	26000.00	Certified Gynecology Nurse	130
10	123002	Joury	Hani	F	Saudi	24000.00	Certified Gynecology Nurse	130
11	123201	Emily	Johnson	F	American	20000.00	Certified Registered Nurse Anesthetist	3208
12	123202	Michael	Garcia	M	American	22000.00	Certified Registered Nurse Anesthetist	3208
13	123701	Ahad	Yousef	F	Saudi	24000.00	Certified Dermatology Nurse	3137
14	123702	Maria	Mazn	F	Saudi	21000.00	Certified Dermatology Nurse	3137
15	124201	Mashal	Hussen	M	Saudi	23000.00	Certified Otolaryngology Nurse	2042
16	124202	Sarah	Saleh	F	Saudi	23000.00	Certified Otolaryngology Nurse	2042
17	124401	Fouz	Ibrahim	F	Saudi	22000.00	Certified Neurology Nurse	6044
18	124402	Selena	Smith	F	American	20000.00	Certified Neurology Nurse	6044
19	124501	Ghadi	Ahmed	F	Saudi	20000.00	Certified Oncology Nurse	3045
20	124502	Albtool	Eyad	F	Saudi	21000.00	Certified Oncology Nurse	3045
21	124601	Mazn	Hmood	M	Saudi	23000.00	Certified Ophthalmic Nurse	46
22	124602	Aram	Abdulaziz	F	Saudi	22000.00	Certified Ophthalmic Nurse	46
23	124801	Draa	Talal	F	Saudi	22000.00	Certified Gastroenterology Nurse	1048
24	124802	Abdelkader	Aimen	M	Saudi	25000.00	Certified Gastroenterology Nurse	1048
25	125501	Loui	Abdelkader	M	Saudi	25000.00	Certified Hematology Nurse	2055
26	125502	Husham	Fars	M	Saudi	26000.00	Certified Hematology Nurse	2055
27	125701	Amal	Ameer	F	Saudi	24000.00	Certified Urology Nurse	4057
28	125702	Hazm	Adeeb	M	Saudi	22000.00	Certified Urology Nurse	4057
29	125801	Sophia	Jad	F	Egyptian	22000.00	Certified Cardiac Nurse	58
30	125802	Nada	Osamah	F	Saudi	21000.00	Certified Cardiac Nurse	58

Staff

```sql
INSERT INTO Staff
VALUES (311901,'Nora','Abdullah','F','Saudi',11000,'Social Work',08873),
(311902,'Zain','Ibrahiam','M','Saudi',10000,'Social Work',08873),
(311903,'Bader','Rakan','M','Jordanian',10000,'Social Work',08873),
(311904,'Braa','Jad','M','Jordanian',11000,'Social Work',08873),
(311905,'Eyad','Fars','M','Saudi',7800,'Receptionist',08873),
(311906,'Aryam','Abdulkareem','F','Saudi',8000,'Receptionist',08873),
(311907,'Zayd','Mohammed','M','Saudi',8100,'Receptionist',08873),
(311908,'Kadi','Saud','F','Saudi',7500,'Receptionist',08873),
(311909,'Rana','Majad','F','Saudi',7800,'Receptionist',08873),
(311910,'Rahaf','Salem','F','Saudi',8500,'Receptionist',08873),
(311911,'Raghad','Yousef','F','Saudi',7600,'Receptionist',08873),
(311912,'Majed','Saleh','M','Saudi',8300,'Receptionist',08873),
(311913,'Isa','Ahemad','M','Egyptian',7800,'Receptionist',08873),
(311914,'Malik','Abdullah','M','Saudi',7500,'Receptionist',08873),
(311915,'Alanoud','Abdulaziz','F','Saudi',8000,'Receptionist',08873),
(311916,'Musa','Firas','M','Saudi',8100,'Receptionist',08873),
(311917,'Abdulrahman','Saad','M','Saudi',7700,'Receptionist',08873),
(311918,'Refal','Tamim','F','Saudi',8000,'Receptionist',08873),
(311919,'Nawaf','Fasial','M','Saudi',7800,'Receptionist',08873),
(311920,'Turki','Fahad','M','Saudi',18000,'administrative assistant',08873),
(311921,'Thamer','Khalid','M','Saudi',16000,'administrative assistant',08873),
(311922,'Aiman','Hussam','M','Saudi',12000,'Maintenance Technician',18842),
(311923,'Bander','Eyad','M','Saudi',6000,'Security Officer',18842),
(311924,'Abdullah','Yousef','M','Saudi',6000,'Security Officer',18842),
(311925,'Bader','Rakan','M','Saudi',6000,'Security Officer',18842),
(311926,'Yasmeen','Hani','F','Egyptian',9000,'Patient Services Assistants',18842),
(311927,'Farah','Mohannad','F','Jordanin',9000,'Patient Services Assistants',18842),
(311928,'Deem','Bassam','F','Saudi',91000,'Patient Services Assistants',18842),
(311929,'Rami','Mohammed','M','Egyptian',8900,'Patient Services Assistants',18842),
(311930, 'Sarah', 'Johnson', 'F', 'American', 23000, 'HR Manager', 38809),
(311931, 'Jaber', 'Fahad', 'M', 'Saudi', 20000, 'HR Coordinator', 38809),
(311932, 'Fatema', 'Hatem', 'F', 'Saudi', 17000, 'Recruitment Specialist', 38809),
(311933, 'Saud', 'Adeel', 'M', 'Saudi', 16000, 'Training and Development Officer', 38809),
(311934, 'Dona', 'Tamim', 'F', 'Saudi', 20000, 'Financial Analyst', 28848),
(311935, 'Malk', 'Ibrahim', 'F', 'Saudi', 25000, 'Accountant', 28848),
(311936, 'Marwan', 'Majed', 'M', 'Saudi', 23000, 'Budget Analyst', 28848),
(311937, 'Wasan', 'Adeeb', 'F', 'Saudi', 35000, 'Pharmacist', 00661),
(311938, 'Remaz', 'Amar', 'F', 'Saudi', 33000, 'Pharmacist', 00661),
(311939, 'Sultan', 'Hatem', 'M', 'Saudi', 36000, 'Pharmacist', 00661);
```

Staff

	StaffID	FirstName	LastName	Gender	Nationality	salary	Role	Dept_ID
1	311901	Nora	Abdullah	F	Saudi	11000.00	Social Work	8873
2	311902	Zain	Ibrahiam	M	Saudi	10000.00	Social Work	8873
3	311903	Bader	Rakan	M	Jordanian	10000.00	Social Work	8873
4	311904	Braa	Jad	M	Jordanian	11000.00	Social Work	8873
5	311905	Eyad	Fars	M	Saudi	7800.00	Receptionist	8873
6	311906	Aryam	Abdulkareem	F	Saudi	8000.00	Receptionist	8873
7	311907	Zayd	Mohammed	M	Saudi	8100.00	Receptionist	8873
8	311908	Kadi	Saud	F	Saudi	7500.00	Receptionist	8873
9	311909	Rana	Majad	F	Saudi	7800.00	Receptionist	8873
10	311910	Rahaf	Salem	F	Saudi	8500.00	Receptionist	8873
11	311911	Raghad	Yousef	F	Saudi	7600.00	Receptionist	8873
12	311912	Majed	Saleh	M	Saudi	8300.00	Receptionist	8873
13	311913	Isa	Ahemad	M	Egyptian	7800.00	Receptionist	8873
14	311914	Malik	Abdullah	M	Saudi	7500.00	Receptionist	8873
15	311915	Alanoud	Abdulaziz	F	Saudi	8000.00	Receptionist	8873
16	311916	Musa	Firas	M	Saudi	8100.00	Receptionist	8873
17	311917	Abdulrahman	Saad	M	Saudi	7700.00	Receptionist	8873
18	311918	Refal	Tanim	F	Saudi	8000.00	Receptionist	8873
19	311919	Nawaf	Fasial	M	Saudi	7800.00	Receptionist	8873
20	311920	Turki	Fahad	M	Saudi	18000.00	administrative assistant	8873
21	311921	Thamer	Khalid	M	Saudi	16000.00	administrative assistant	8873
22	311922	Aiman	Hussan	M	Saudi	12000.00	Maintenance Technician	18842
23	311923	Bander	Eyad	M	Saudi	6000.00	Security Officer	18842
24	311924	Abdullah	Yousef	M	Saudi	6000.00	Security Officer	18842
25	311925	Bader	Rakan	M	Saudi	6000.00	Security Officer	18842
26	311926	Yasmeen	Hani	F	Egyptian	9000.00	Patient Services Assistants	18842
27	311927	Farah	Mohannad	F	Jordanin	9000.00	Patient Services Assistants	18842
28	311928	Deem	Bassam	F	Saudi	91000.00	Patient Services Assistants	18842
29	311929	Rami	Mohammed	M	Egyptian	8900.00	Patient Services Assistants	18842
30	311930	Sarah	Johnson	F	American	23000.00	HR Manager	38809
31	311931	Jaber	Fahad	M	Saudi	20000.00	HR Coordinator	38809
32	311932	Fatema	Hatem	F	Saudi	17000.00	Recruitment Specialist	38809
33	311933	Saud	Adeel	M	Saudi	16000.00	Training and Development Officer	38809
34	311934	Dona	Tanim	F	Saudi	20000.00	Financial Analyst	28848
35	311935	Malk	Ibrahiam	F	Saudi	25000.00	Accountant	28848
36	311936	Marwan	Majed	M	Saudi	23000.00	Budget Analyst	28848
37	311937	Wasan	Adeeb	F	Saudi	35000.00	Pharmacist	661
38	311938	Remaz	Amar	F	Saudi	33000.00	Pharmacist	661
39	311939	Sultan	Hatem	M	Saudi	36000.00	Pharmacist	661

MedicalRecord

```sql
INSERT INTO MedicalRecord
VALUES(9901, 'Fractured arm', 'Apply cast for 6 weeks', 110101, 2221),
(9902, 'Acne', 'Positive progress.Needs Blood Test for Checkup', 110102, 2208),
(9903, 'Anemia', 'Iron supplements and dietary changes', 110103, 2206),
(9904, 'Depression', 'Increase the number of sessions due to negative progress', 110104, 2223),
(9905, 'Hypertension', 'Prescribe antihypertensive medication', 110105, 2207),
(9906,'Appendicitis', 'Surgical removal of appendix', 110106, 2210),
(9907,'Chronic sinusitis', 'he patient presents with symptoms of chronic sinusitis.
Treatment includes antibiotics, nasal corticosteroids, and saline nasal irrigation.
Follow up in weeks for reassessment', 110107, 2220),
(9908, 'Minor burn', 'Clean and dress wound, prescribe pain relief', 110108, 2209),
(9909, 'LASIK', 'Rest and avoid the light',110110, 2217),
(9910, 'Birth', ' Prenatal vitamins for breastfeeding support,
Pain medication for postpartum discomfort,
Iron supplements to replenish iron levels after childbirth.', 110110, 2233),
(9911, 'Cows milk allergyp', 'More Blood test', 110111, 2211),
(9912, 'Fractured leg', 'Surgery followed by physical therapy', 110112, 2222),
(9913, 'Heart attack', 'Emergency angioplasty and medication', 110113, 2201),
(9914, 'Arthritis', 'Pain management and physical therapy', 110114, 2221),
(9915, 'Kidney stones', 'Pain relief and hydration therapy', 110115, 2238),
(9916, 'Dental checkup', 'Removal of a baby tooth', 110116, 2236),
(9917, 'Overwieght', 'Sleeve gastrectomy', 110117, 2214),
(9918, 'Dental checkup', 'Routine examination and cleaning', 110109, 2237),
(9919, 'Alopecia ', ' 3 Cortisone Sessions', 110119, 2208),
(9920, 'Gastroenteritis', 'Fluid replacement and symptomatic treatment', 110120, 2210),
(9921,'Cavity', 'Tooth filling procedure scheduled for next week.',110132,2237),
(9922,'Dental checkup', 'Routine examination and cleaning',110128,2237),
(9923,'Fractured arm', 'Apply cast for 6 weeks',110139,2221),
(9924,'Dental checkup', 'Routine examination and cleaning',110130,2237),
(9925,'LASIK', 'Rest and avoid the light',110126,2218),
(9926,'LASIK', 'Rest and avoid the light',110124,2217),
(9927,'Anemia', 'Iron supplements and dietary changes',110122,2206),
(9928,'Alopecia ', ' 3 Cortisone Sessions',110137,2208),
(9929,'Eczema', 'Topical corticosteroids and moisturizers.',110136,2208),
(9930,'Celiac Disease', 'Gluten-free diet and nutritional supplements.',110125,2211),
(9931,'Celiac Disease', 'Gluten-free diet and nutritional supplements.',110127,2210),
(9932,'Celiac Disease', 'Gluten-free diet and nutritional supplements.',110138,2210);
```

	MedicalRecordID	Diagnosis	TreatmentDescription	PatientID	doctorID
1	9901	Fractured arm	Apply cast for 6 weeks	110101	2221
2	9902	Acne	Positive progress.Needs Blood Test for Checkup	110102	2208
3	9903	Anemia	Iron supplements and dietary changes	110103	2206
4	9904	Depression	Increase the number of sessions due to negative progress	110104	2223
5	9905	Hypertension	Prescribe antihypertensive medication	110105	2207
6	9906	Appendicitis	Surgical removal of appendix	110106	2210
7	9907	Chronic sinusitis	he patient presents with symptoms of chronic sinusitis. ↵Treatment includes antibiotics, nasal corticosteroids, and saline nasal irrigation. ↵Follow up in weeks for reassessment	110107	2220
8	9908	Minor burn	Clean and dress wound, prescribe pain relief	110108	2209
9	9909	LASIK	Rest and avoid the light	110110	2217
10	9910	Birth	Prenatal vitamins for breastfeeding support, ↵Pain medication for postpartum discomfort,↵Iron supplements to replenish iron levels after childbirth.	110110	2233
11	9911	Cows milk allergyp	More Blood test	110111	2211
12	9912	Fractured leg	Surgery followed by physical therapy	110112	2222
13	9913	Heart attack	Emergency angioplasty and medication	110113	2201
14	9914	Arthritis	Pain management and physical therapy	110114	2221
15	9915	Kidney stones	Pain relief and hydration therapy	110115	2238
16	9916	Dental checkup	Removal of a baby tooth	110116	2236
17	9917	Overwieght	Sleeve gastrectomy	110117	2214
18	9918	Dental checkup	Routine examination and cleaning	110109	2237
19	9919	Alopecia	3 Cortisone Sessions	110110	2208
20	9920	Gastroenteritis	Fluid replacement and symptomatic treatment	110120	2210
21	9921	Cavity	Tooth filling procedure scheduled for next week.	110132	2237
22	9922	Dental checkup	Routine examination and cleaning	110128	2237
23	9923	Fractured arm	Apply cast for 6 weeks	110139	2221
24	9924	Dental checkup	Routine examination and cleaning	110130	2237
25	9925	LASIK	Rest and avoid the light	110126	2218
26	9926	LASIK	Rest and avoid the light	110124	2217
27	9927	Anemia	Iron supplements and dietary changes	110122	2206
28	9928	Alopecia	3 Cortisone Sessions	110137	2208
29	9929	Eczema	Topical corticosteroids and moisturizers.	110136	2208
30	9930	Celiac Disease	Gluten-free diet and nutritional supplements.	110125	2211
31	9931	Celiac Disease	Gluten-free diet and nutritional supplements.	110127	2210
32	9932	Celiac Disease	Gluten-free diet and nutritional supplements.	110138	2210

Appointments

```sql
INSERT INTO Appointments
VALUES
    ('2024-01-16', '08:00:00', 2221, 110101, 00119), ('2024-1-20', '10:30:00', 2208, 110102, 03137),
    ('2024-03-30', '14:00:00', 2237, 110109, 03111) ('2024-01-10', '09:15:00', 2236, 110116, 03111),
    ('2024-02-29', '11:30:00', 2214, 110117, 00203), ('2024-1-20', '13:45:00', 2208, 110119, 03137),
    ('2024-02-29', '15:00:00', 2217, 110118, 00046), ('2024-03-30', '08:30:00', 2238, 110115, 86044),
    ('2024-01-20', '11:00:00', 2211, 110111, 01048), ('2024-2-22', '14:30:00', 2233, 110110, 08130),
    ('2024-03-15', '10:00:00', 2210, 110120, 01048), ('2024-03-16','10:00:00',2221,110139,00119),
    ('2024-06-27','08:30:00',2224,110140,01202), ('2024-06-27','9:30:00',2224,110119,01202),
    ('2024-06-27','11:00:00',2224,110136,01202), ('2024-06-27','9:30:00',2208,110133,03137),
    ('2024-06-27','9:30:00',2201,110116,00058), ('2024-05-17','13:00:00',2237,110132,03111),
    ('2024-05-17','13:00:00',2222,110134,00119), ('2024-05-17','14:30:00',2222,110131,00119),
    ('2024-05-17','17:00:00',2209,110121,03137), ('2024-05-17','14:30:00',2212,110129,06044),
    ('2024-06-06','9:00:00',2212,110135,06044),('2024-06-06','17:00:00',2209,110123,03137),
    ('2024-06-06','16:00:00',2209,110110,03137), ('2024-06-06','9:00:00',2226,110113,00058),
    ('2024-03-30','15:30:00',2237,110132,03111), ('2024-03-30','12:30:00',2237,110128,03111),
    ('2024-03-30','17:00:00',2237,110130,03111), ('2024-03-30','12:30:00',2221,110114,00119),
    ('2024-02-29','12:00:00',2217,110124,00046), ('2024-02-29','12:00:00',2208,110137,03137),
    ('2024-02-29','11:30:00',2218,110126,00046), ('2024-02-29','11:30:00',2210,110138,01048),
    ('2024-3-15','11:30:00',2210,110127,01048), ('2024-3-15','10:30:00',2211,110125,01048);
```

	AppointmentDate	AppointmentTime	DoctorID	PatientID	Dept_ID
1	1445-06-28	09:15:00	2236	110116	3111
2	1445-07-04	08:00:00	2221	110101	119
3	1445-07-08	10:30:00	2208	110102	3137
4	1445-07-08	11:00:00	2211	110111	1048
5	1445-07-08	13:45:00	2208	110119	3137
6	1445-08-12	14:30:00	2233	110110	130
7	1445-08-19	11:30:00	2210	110138	1048
8	1445-08-19	11:30:00	2214	110117	203
9	1445-08-19	11:30:00	2218	110126	46
10	1445-08-19	12:00:00	2208	110137	3137
11	1445-08-19	12:00:00	2217	110124	46
12	1445-08-19	15:00:00	2217	110118	46
13	1445-09-05	10:00:00	2210	110120	1048
14	1445-09-05	10:30:00	2211	110125	1048
15	1445-09-05	11:30:00	2210	110127	1048
16	1445-09-06	10:00:00	2221	110139	119
17	1445-09-20	08:30:00	2238	110115	6044
18	1445-09-20	12:30:00	2221	110114	119
19	1445-09-20	12:30:00	2237	110128	3111
20	1445-09-20	14:00:00	2237	110109	3111
21	1445-09-20	15:30:00	2237	110132	3111
22	1445-09-20	17:00:00	2237	110130	3111
23	1445-11-09	13:00:00	2222	110134	119
24	1445-11-09	13:00:00	2237	110132	3111
25	1445-11-09	14:30:00	2212	110129	6044
26	1445-11-09	14:30:00	2222	110131	119
27	1445-11-09	17:00:00	2209	110121	3137
28	1445-11-29	09:00:00	2212	110135	6044
29	1445-11-29	09:00:00	2226	110113	58
30	1445-11-29	16:00:00	2209	110110	3137
31	1445-11-29	17:00:00	2209	110123	3137
32	1445-12-21	08:30:00	2224	110140	1202
33	1445-12-21	09:30:00	2201	110116	58
34	1445-12-21	09:30:00	2208	110133	3137
35	1445-12-21	09:30:00	2224	110119	1202
36	1445-12-21	11:00:00	2224	110136	1202

Department

```sql
INSERT INTO Department
VALUES
    (03208,'Anesthetics','2021-11-9','Building F32',4),
    (08873,'Admissions','2021-11-9','Building F88',1),
    (18842,'General Services','2021-11-9','Building F88',2),
    (28848,'Finance Department','2021-11-9','Building F88',3),
    (38809,'Human Resources','2021-11-9','Building F88',4),
    (00058,'Cardiology','2021-11-9','Building F5',1),
    (02055,'Hematology','2021-11-9','Building F5',3),
    (04057,'Urology','2022-1-5','Building F5',5),
    (00130,'Gynecology','2022-5-3','Building F13',1),
    (03137,'Dermatology','2023-7-24','Building F13',4),
    (00046,'Ophthalmology','2023-10-11','Building F4',1),
    (01048,'Gastroenterology','2022-2-5','Building F4',2),
    (02042,'Otolaryngology','2024-2-1','Building F4',3),
    (03045,'Oncology','2021-12-21','Building F4',4),
    (06044,'Neurology','2023-4-3','Building F4',7),
    (00203,'Nutrition and Dietetics','2022-10-9','Building F20',1),
    (01202,'Psychiatry','2022-6-6','Building F20',2),
    (00119,'Physiotherapy','2022-1-5','Building F11',1),
    (03111,'Dentistry','2023-7-24','Building F11',4),
    (00661,'Pharmacy','2021-11-9','Building F66',0);
```

	Dept_ID	DepartmentName	creationdate	Dept_Location	Dept_Floor
1	46	Ophthalmology	1445-03-26	Building F4	1
2	58	Cardiology	1443-04-04	Building F5	1
3	119	Physiotherapy	1443-06-02	Building F11	1
4	130	Gynecology	1443-10-02	Building F13	1
5	203	Nutrition and Die…	1444-03-13	Building F20	1
6	661	Pharmacy	1443-04-04	Building F66	0
7	1048	Gastroenterology	1443-07-04	Building F4	2
8	1202	Psychiatry	1443-11-07	Building F20	2
9	2042	Otolaryngology	1445-07-20	Building F4	3
10	2055	Hematology	1443-04-04	Building F5	3
11	3045	Oncology	1443-05-17	Building F4	4
12	3111	Dentistry	1445-01-06	Building F11	4
13	3137	Dermatology	1445-01-06	Building F13	4
14	3208	Anesthetics	1443-04-04	Building F32	4
15	4057	Urology	1443-06-02	Building F5	5
16	6044	Neurology	1444-09-12	Building F4	7
17	8873	Admissions	1443-04-04	Building F88	1
18	18842	General Services	1443-04-04	Building F88	2
19	28848	Finance Department	1443-04-04	Building F88	3
20	38809	Human Resources	1443-04-04	Building F88	4

Radiology

```sql
INSERT INTO Radiology
VALUES (1, 9901, 110101, 'X-ray_fractured_arm.jpg', '2024-01-16'),
(2, 9912, 110112, 'X-ray_fractured_leg.jpg', '2024-01-15'),
(3, 9905, 110105, 'CT_scan_head.jpg', '2024-02-20'),
(4, 9906, 110106, 'X-ray_appendicitis.jpg', '2024-03-10'),
(5, 9907, 110107, 'CT_Scan_Paranasal_Sinuses.pdf', '2024-03-05'),
(6, 9915, 110115, 'Ultrasound_kidney_stones.jpg', '2024-03-30'),
(7 ,9923, 110139, 'X-ray_fractured_arm.jpg', '2024-03-16');
```

	ResultID	MedicalRecordID	PatientID	ResultFile	ResultDate
1	1	9901	110101	X-ray_fractured_arm.jpg	1445-07-04
2	2	9912	110112	X-ray_fractured_leg.jpg	1445-07-03
3	3	9905	110105	CT_scan_head.jpg	1445-08-10
4	4	9906	110106	X-ray_appendicitis.jpg	1445-08-29
5	5	9907	110107	CT_Scan_Paranasal_Sinuses.pdf	1445-08-24
6	6	9915	110115	Ultrasound_kidney_stones.jpg	1445-09-20
7	7	9923	110139	X-ray_fractured_arm.jpg	1445-09-06

ClinicalLaboratory

```sql
INTO ClinicalLaboratory
(4401, 9902, 110102, 'Blood_test_acne.jpg', '2024-01-20'),
9911, 110111, 'Blood_test_infant.jpg', '2024-01-20'),
9917, 110117, 'Blood_test_surgery.jpg', '2024-02-29'),
9910,110110,'Blood_Test_Results.pdf','2024-2-22');
```

	ResultID	MedicalRecordID	PatientID	ResultFile	ResultDate
1	4401	9902	110102	Blood_test_acne.jpg	1445-07-08
2	4402	9911	110111	Blood_test_infant.jpg	1445-07-08
3	4403	9917	110117	Blood_test_surgery.jpg	1445-08-19
4	4404	9910	110110	Blood_Test_Results.pdf	1445-08-12

PatientFeedback

```sql
INSERT INTO PatientFeedback
VALUES (7701, 110101, 5, 'No Suggestions', '2024-01-18'),
(7702, 110102, 5, 'No Suggestions.', '2024-1-25'),
(7703, 110107, 3, 'Waiting time was a bit long, but overall satisfied with treatment.', '2024-03-08'),
(7704, 110114, 4, 'No Suggestions.', '2024-04-10'),
(7705, 110118, 2, 'Would appreciate more detailed explanations from the doctor.', '2024-02-29'),
(7706, 110119, 5, 'No Suggestions', '2024-01-20'),
(7707, 110113, 4, 'Improved signage needed within the hospital.', '2024-01-27'),
(7708, 110115, 3, 'Would like more comfortable waiting areas.', '2024-03-30'),
(7719, 110106, 4, 'No Suggestions', '2024-03-10'),
(7710, 110120, 2, 'Suggest providing more amenities for chemotherapy patients.', '2024-01-17');
```

	FeedbackID	PatientID	SatisfactionRate	Suggestions	FeedbackDate
1	7701	110101	5	No Suggestions	1445-07-06
2	7702	110102	5	No Suggestions.	1445-07-13
3	7703	110107	3	Waiting time was a bit long, but overall satisfied with treatment.	1445-08-27
4	7704	110114	4	No Suggestions.	1445-10-01
5	7705	110118	2	Would appreciate more detailed explanations from the doctor.	1445-08-19
6	7706	110119	5	No Suggestions	1445-07-08
7	7707	110113	4	Improved signage needed within the hospital.	1445-07-15
8	7708	110115	3	Would like more comfortable waiting areas.	1445-09-20
9	7710	110120	2	Suggest providing more amenities for chemotherapy patients.	1445-07-05
10	7719	110106	4	No Suggestions	1445-08-29

Pharmacy

```sql
INSERT INTO Pharmacy
VALUES
 (1001, 110101, 000.00, 2221, 'Painkillers and antibiotics', '2024-01-16'),
 (1002, 110102, 000.00, 2208, 'Accutane', '2024-1-20'),
 (1003, 110103, 000.00, 2206, 'Iron supplements', '2024-03-05'),
 (1004, 110114, 000.00, 2221, 'Pain relief ointment and medication', '2024-04-10'),
 (1005, 110118, 50.00, 2217, 'Eyes drop', '2024-02-29'),
 (1006, 110111, 00.00, 2211, 'Neocate LCP', '2024-01-20'),
 (1007, 110119, 00.00, 2208, 'Regaine', '2024-1-20'),
 (1008, 110104, 100.00, 2223, 'antidepressants', '2024-08-30'),
 (1009, 110109, 000.00, 2237, 'Dental hygiene products', '2024-03-30'),
 (1010, 110106, 00.00, 2210, 'Pain relief cream ', '2024-03-10'),
 (1011, 110112, 90.00, 2222, 'Pain medicationn', '2024-11-15');
```

	BillNumber	PatientID	Cost	DoctorID	Prescription	PrescriptionDate
1	1001	110101	0.00	2221	Painkillers and antibiotics	1445-07-04
2	1002	110102	0.00	2208	Accutane	1445-07-08
3	1003	110103	0.00	2206	Iron supplements	1445-08-24
4	1004	110114	0.00	2221	Pain relief ointment and medication	1445-10-01
5	1005	110118	50.00	2217	Eyes drop	1445-08-19
6	1006	110111	0.00	2211	Neocate LCP	1445-07-08
7	1007	110119	0.00	2208	Regaine	1445-07-08
8	1008	110104	100.00	2223	antidepressants	1446-02-26
9	1009	110109	0.00	2237	Dental hygiene products	1445-09-20
10	1010	110106	0.00	2210	Pain relief cream	1445-08-29
11	1011	110112	90.00	2222	Pain medicationn	1446-05-13

1

How many uninsured patients are there by gender?

```sql
CREATE VIEW no_insurance AS
SELECT  p.Gender, COUNT(p.Gender) AS Number_Gender
FROM Patient p
WHERE p.INSURANCENUMBER = 'No Insurance'
GROUP BY p.Gender ;
```

Its   Messages

Gender	Number_Gender
F	9
M	9

2

What clinical laboratory results are available for patients, including names, contact information, result dates, and files?"

```sql
CREATE VIEW patients_ClinicalLaboratory  AS
SELECT Patient.PatientID, Patient.FirstName, Patient.LastName, Patient.PhoneNumber, ClinicalLaboratory.RESULTFILE, ClinicalLaboratory.RESULTDATE
FROM Patient INNER JOIN ClinicalLaboratory  ON Patient.PatientID = ClinicalLaboratory .PatientID;
```

Messages

atientID	FirstName	LastName	PhoneNumber	RESULTFILE	RESULTDATE
10102	Lamar	Fahad	0504599344	Blood_test_acne.jpg	1445-07-08
10111	Firas	Fasial	0505446443	Blood_test_infant.jpg	1445-07-08
10117	Yousef	Zaid	0501804638	Blood_test_surgery.jpg	1445-08-19
0110	Bayan	Salman	0505446443	Blood_Test_Results.pdf	1445-08-12

What is the information about the specialized doctors in the Department of Cardiology?

```sql
CREATE VIEW Cardiology_department AS
SELECT *
FROM Doctor
WHERE DEPT_ID = 58
with check option;
```

Messages								
octorID	FirstName	LastName	Gender	Nationality	salary	Certification	Qualification	Dept_ID
2201	Diana	Geisser	F	American	40000.00	MD,ABIM	Cardiologist	58
2202	Majed	Yaseer	M	Saudi	38000.00	MD	Paediatric Cardiologist	58
2203	Tala	Ahemad	F	Saudi	30000.00	MD	Cardiologist	58
2225	John	Hutson	M	British	45000.00	MD	Surgeon	58
	Juan	Bortagaray	M	British	45000.00	MD	Surgeon	58

```sql
INSERT INTO Cardiology_department VALUES (2250,'Mona','Geisser','F','American',45060,'MD,ABIM','Cardiologist',00058);
INSERT INTO Cardiology_department VALUES (2245,'Saad','Turki','M','Saudi',33000,'MD,ABA','Consultant Anaesthetist',03208);

5-- How many prescriptions and details are available for uninsured patients?
```

```
Started executing query at Line 403
(1 row affected)
Msg 550, Level 16, State 1, Line 4
The attempted insert or update failed because the target view either specifies WITH CHECK OPTION or spans a view that specifies WITH CHECK
did not qualify under the CHECK OPTION constraint.
The statement has been terminated.
Total execution time: 00:00:00.017
```

after insert

```sql
INSERT INTO Cardiology_department VALUES (2250,'Mona','Geisser','F','American',45000,'MD,ABIM','Cardiologist',00058);
INSERT INTO Cardiology_department VALUES (2245,'Saad','Turki','M','Saudi',33000,'MD,ABA','Consultant Anaesthetist',03208);

5-- How many prescriptions and details are available for uninsured patients?
```

Messages								
DoctorID	FirstName	LastName	Gender	Nationality	salary	Certification	Qualification	Dept_ID
2201	Diana	Geisser	F	American	40000.00	MD,ABIM	Cardiologist	58
2202	Majed	Yaseer	M	Saudi	38000.00	MD	Paediatric Cardiologist	58
2203	Tala	Ahomad	F	Saudi	30000.00	MD	Cardiologist	58
2225	John	Hutson	M	British	45000.00	MD	Surgeon	58
2226	Juan	Bortagaray	M	British	45000.00	MD	Surgeon	58
250	Mona	Geisser	F	American	45000.00	MD,ABIM	Cardiologist	58

What prescriptions and details are available for uninsured patients?

```sql
CREATE VIEW prescription_noinsurance AS
SELECT Pharmacy.BillNumber, Patient.PatientID, Patient.FirstName, Pharmacy.prescription
FROM Patient JOIN Pharmacy on Patient.PatientID = Pharmacy.PatientID
WHERE Patient.InsuranceNumber  = 'No Insurance';
```

ults   Messages

BillNumber	PatientID	FirstName	prescription
1005	110118	Manar	Eyes drop
1008	110104	Leen	antidepressants
1011	110112	Abdullah	Pain medicationn

5

What patients received a low satisfaction rating?

```sql
CREATE VIEW bad_feedback AS
SELECT patient.FirstName, patient.LastName
FROM Patient  JOIN patientfeedback on Patient.PatientID =PatientFeedback.PatientID
WHERE SatisfactionRate <=2;
```

ults   Messages

FirstName	LastName
Manar	Rayan
Marah	Saad

DML (Queries)

1

How many patients had appointments on February 22, 2024, in the Gynecology Department?

```sql
SELECT COUNT(*) AS NumberOfPatients
FROM Appointments NATURAL JOIN Department
WHERE Department.DepartmentName = 'Gynecology
AND AppointmentDate = '2024-2-22';
```

	NumberOfPatients
1	1

2

Which patients are diagnosed with Overweight?

```sql
SELECT FirstName, LastName
FROM Patient
WHERE PatientID IN (
SELECT PatientID
FROM MedicalRecord
WHERE Diagnosis = 'Overwieght');
```

Results Messages

	FirstName	LastName
1	Yousef	Zaid

3

What are the names of male doctors working on Floor 1 ?

```sql
SELECT FirstName, LastName
FROM Doctor WHERE Gender = 'M' AND Dept_ID IN
(SELECT Dept_ID FROM Department WHERE Dept_Floor = 1);
```

ts   Messages

FirstName	LastName
Majed	Yaseer
Saleh	Naif
Baseel	Tariq
John	Hutson
Juan	Bortagaray

4

Which patients have a satisfaction rating of less than 4, and what are their suggestions?

```sql
SELECT PF.PatientID, P.FirstName ,SatisfactionRate, PF.Suggestions
FROM PatientFeedback PF
JOIN Patient P ON PF.PatientID = P.PatientID
WHERE PF.SatisfactionRate < 4;
```

Results   Messages

	PatientID	FirstName	SatisfactionRate	Suggestions
1	110107	Hussam	3	Waiting time was a bit long, but overall satisfied w…
2	110118	Manar	2	Would appreciate more detailed explanations from the…
3	110115	Nasser	3	Would like more comfortable waiting areas.
4	110120	Marah	2	Suggest providing more amenities for chemotherapy pa…

5

How many patients have a Strawberries allergy?

```sql
SELECT COUNT(*) AS NumOfPatientsWithStrawberriesAllergy
FROM Patient
WHERE Allergies = 'Strawberries'
```

ults | Messages

NumOfPatientsWithStrawberriesAllergy ∨
2

6

Which male patients don't suffer from allergies?

```sql
SELECT  Patient.PatientID, Patient.FirstName, Patient.LastName
FROM Patient
WHERE Patient.Allergies LIKE 'No Allergies' and Gender = 'M';
```

Results | Messages

	PatientID ∨	FirstName ∨	LastName ∨
1	110105	Sultan	Mohammed
2	110111	Firas	Fasial
3	110113	Saleh	Ahemad
4	110119	Omar	Osamah
5	110131	Yousef	Majed
6	110134	Saud	Fars
7	110136	Marwan	Malk

7

What are the radiological reports for patient ID 110107?

```sql
SELECT  R.ResultFile, R.ResultDate
FROM Radiology R JOIN MedicalRecord MR ON R.MedicalRecordID = MR.MedicalRecordID
WHERE MR.PatientID = 110107;
```

Results Messages

	ResultFile	ResultDate
1	CT_Scan_Paranasal_Sinuses.pdf	1445-08-24

8

Who are the female reception staff members with salaries higher than $8000?

```sql
SELECT FirstName, LastName , salary
FROM Staff
WHERE Role = 'Receptionist'
AND Gender = 'F'  AND salary > 8000;
```

Results Messages

	FirstName	LastName	salary
1	Rahaf	Salem	8500.00

9

Which patients have only one appointment in the 'Neurology' department?

```sql
SELECT P.PatientID, P.FirstName, P.LastName
FROM Patient P  , Appointments A , Department Dept
WHERE  P.PatientID = A.PatientID AND  A.Dept_ID = Dept.Dept_ID
AND Dept.DepartmentName =  'Neurology'
GROUP BY P.PatientID , P.FirstName, P.LastName
HAVING COUNT(*) = 1;
```

Results Messages

	PatientID	FirstName	LastName
1	110115	Nasser	Saleh
2	110129	Asmaa	Omar
3	110135	Farah	Isa

10

Which patients rated poorly (below 3)?

```sql
SELECT P.PatientID, P.FirstName, P.LastName, PF.SatisfactionRate
FROM Patient P
JOIN PatientFeedback PF ON P.PatientID = PF.PatientID
WHERE PF.SatisfactionRate < 3;
```

Results Messages

	PatientID	FirstName	LastName	SatisfactionRate
1	110118	Manar	Rayan	2
2	110120	Marah	Saad	2

11

How should the salary of administrative assistants be updated if their salary is less than $18,000, by increasing it by $1,000?

```
UPDATE Staff
SET salary = salary + 1000
WHERE Role = 'administrative assistant' AND salary < 18000;

Select  FirstName , LastName ,salary
From  staff
Where Role = 'administrative assistant'
and  salary <=18000
```

FirstName	LastName	salary
Turki	Fahad	18000.00
Thamer	Khalid	17000.00

12

Find the female nurses whose salary is less than 22,000 and increase their salaries by 1000?

```
UPDATE Nurse
SET salary = salary + 1000
WHERE Gender = 'F' AND salary < 22000;
```

Messages

4:26:01 PM   Started executing query at Line 734
(8 rows affected)
Total execution time: 00:00:00.027

```
Select  FirstName , LastName ,salary
FROM Nurse
WHERE Gender = 'F'

Select  FirstName , LastName ,salary
FROM Nurse
WHERE Gender = 'F'
AND salary <= 22000;
```

FirstName	LastName	salary
Ariana	Smith	22000.00
Emma	Gomez	22000.00
Maria	Chang	22000.00
Emily	Johnson	21000.00
Maria	Mazn	22000.00
Fouz	Ibrahiam	22000.00
Selena	Smith	21000.00
Ghadi	Ahmed	21000.00
Albtool	Eyad	22000.00
Aram	Abdulaziz	22000.00
Draa	Talal	22000.00
Sophia	Jad	22000.00
Nada	Osamah	22000.00

13

What are the Nurse ID, first name, and last name of male nurses who are of Saudi nationality, ordered by first name?

```sql
select NurseID,FirstName,LastName
from Nurse
where Nationality ='saudi' and Gender like 'M'
order by FirstName;
```

Results   Messages

	NurseID	FirstName	LastName
1	124802	Abdelkader	Aimen
2	125702	Hazm	Adeeb
3	121901	Hazza	Faisal
4	121902	Husham	Hussen
5	125502	Husham	Fars
6	125501	Loui	Abdelkader
7	124201	Mashal	Hussen
8	124601	Mazn	Hmood

14

Which patients have upcoming appointments and what are their medical records?

```sql
SELECT Patient.PatientID, Patient.FirstName, Patient.LastName, Patient.PhoneNumber, Appointments.AppointmentDate, MedicalRecord.Diagnosis
FROM Patient INNER JOIN Appointments ON Patient.PatientID = Appointments.PatientID, MedicalRecord
WHERE Appointments.AppointmentDate >= GETDATE() and  Patient.PatientID = MedicalRecord.PatientID;
```

Results   Messages

	PatientID	FirstName	LastName	PhoneNumber	AppointmentDate	Diagnosis
1	110110	Bayan	Salman	0505446443	1445-11-29	Birth
2	110113	Saleh	Ahemad	0500894258	1445-11-29	Heart attack
3	110116	Leena	Ahemad	0538815577	1445-12-21	Dental checkup
4	110119	Omar	Osamah	0537665745	1445-12-21	Alopecia
5	110132	Maha	Ibrahiam	0557632211	1445-11-09	Cavity
6	110136	Marwan	Malk	0509871234	1445-12-21	Eczema

15

What is the department name, gender, and average salary for staff members with salaries greater than or equal to $5000, grouped by department name and gender, and ordered accordingly?

```sql
SELECT d.DepartmentName, s.Gender, AVG(s.salary) AS AverageSalary
FROM Staff s
RIGHT JOIN Department d ON s.Dept_ID = d.Dept_ID
WHERE s.salary >= 5000
GROUP BY d.DepartmentName, s.Gender
ORDER BY d.DepartmentName, s.Gender;
```

Results Messages

	DepartmentName	Gender	AverageSalary
1	Admissions	F	8300.000000
2	Admissions	M	9853.846153
3	Finance Department	F	22500.000000
4	Finance Department	M	23000.000000
5	General Services	F	36333.333333
6	General Services	M	7780.000000
7	Human Resources	F	20000.000000
8	Human Resources	M	18000.000000
9	Pharmacy	F	34000.000000
10	Pharmacy	M	36000.000000

16

What is the maximum salary for each department among both nurses and staff members?

```sql
SELECT DepartmentName, MAX(salary) AS MaxSalary
FROM (
SELECT Dept_ID, salary FROM Nurse
UNION ALL
SELECT Dept_ID, salary FROM Staff
) AS AllSalaries
JOIN Department ON AllSalaries.Dept_ID = Department.Dept_ID
GROUP BY DepartmentName;
```

Results Messages

	DepartmentName	MaxSalary
1	Admissions	18000.00
2	Anesthetics	22000.00
3	Cardiology	22000.00
4	Dentistry	23000.00
5	Dermatology	24000.00
6	Finance Department	25000.00
7	Gastroenterology	25000.00
8	General Services	91000.00
9	Gynecology	26000.00
10	Hematology	26000.00
11	Human Resources	23000.00
12	Neurology	22000.00
13	Nutrition and Dietetics	23000.00
14	Oncology	21000.00
15	Ophthalmology	23000.00
16	Otolaryngology	23000.00
17	Pharmacy	36000.00
18	Physiotherapy	22000.00
19	Psychiatry	23000.00
20	Urology	24000.00

17

What are the maximum and minimum salaries for each nationality among staff members?

```sql
SELECT Nationality, MAX(salary) AS MaxSalary, MIN(salary) AS MinSalary
FROM Staff
GROUP BY Nationality;
```

Results Messages

	Nationality	MaxSalary	MinSalary
1	American	23000.00	23000.00
2	Egyptian	9000.00	7800.00
3	Jordanian	11000.00	10000.00
4	Jordanin	9000.00	9000.00
5	Saudi	91000.00	6000.00

18

What are the maximum and minimum salaries for each role among male staff members?

```sql
SELECT Role, MAX(salary) AS MaxSalary, MIN(salary) AS MinSalary
FROM Staff
WHERE Gender = 'M'
GROUP BY Role;
```

Results Messages

	Role	MaxSalary	MinSalary
1	administrative assistant	18000.00	16000.00
2	Budget Analyst	23000.00	23000.00
3	HR Coordinator	20000.00	20000.00
4	Maintenance Technician	12000.00	12000.00
5	Patient Services Assistants	8900.00	8900.00
6	Pharmacist	36000.00	36000.00
7	Receptionist	8300.00	7500.00
8	Security Officer	6000.00	6000.00
9	Social Work	11000.00	10000.00
10	Training and Development Officer	16000.00	16000.00

19

What is the average cost of prescriptions for each gender?

```sql
SELECT pa.Gender, AVG(p.Cost) AS AverageCost
FROM Pharmacy p
JOIN Patient pa ON p.PatientID = pa.PatientID
GROUP BY pa.Gender;
```

Results   Messages

	Gender	AverageCost
1	F	21.428571
2	M	22.500000

20

Which department has the most female staff members, including doctors and nurses?

```sql
SELECT d.DepartmentName, COUNT(*) AS FemaleStaffCount
FROM (
SELECT Dept_ID, Gender FROM Staff
UNION ALL
SELECT Dept_ID, Gender FROM Doctor
UNION ALL
SELECT Dept_ID, Gender FROM Nurse
) AS CombinedData
JOIN Department d ON CombinedData.Dept_ID = d.Dept_ID
WHERE CombinedData.Gender = 'F'
GROUP BY d.DepartmentName
ORDER BY FemaleStaffCount DESC;
```

Results   Messages

	DepartmentName	FemaleStaffCount
1	Admission	8
2	Dermatology	5
3	Neurology	5
4	Nutrition and Dietetics	4
5	Gynecology	4
6	Cardiology	4
7	Oncology	3
8	General Services	3
9	Ophthalmology	2
10	Utolaryngology	2
11	Pharmacy	2
12	Physiotherapy	2
13	Psychiatry	2
14	Urology	2
15	Dentistry	2
16	Hematology	2
17	Human Resources	2
18	Finance Department	2
19	Gastroenterology	2
20	Anesthetics	1

21

Show me the prescription for patients with insurance, order by their id

```
SELECT ph.Prescription, pa.InsuranceNumber,ph.patientID
FROM Pharmacy ph
JOIN Patient pa ON ph.PatientID = pa.PatientID
WHERE pa.InsuranceNumber  not like 'NO Insurance%'
ORDER BY pa.PatientID;
```

Results   Messages

	Prescription	InsuranceNumber	patientID
1	Painkillers and antibiotics	111-021-001	110101
2	Accutane	112-022-221	110102
3	Iron supplements	111-221,920	110103
4	Pain relief cream	112-989-030	110106
5	Dental hygiene products	221-221-921	110109
6	Neocate LCP	224-443-343	110111
7	Pain relief ointment and medication	119-083-321	110114
8	Regaine	506-911-120	110119

22

What is the average age of people who have allergies, categorized by allergy status?

```
SELECT AllergyStatus, AVG(Age) AS AverageAge
FROM (
    SELECT
        CASE WHEN Allergies NOT LIKE 'No%' THEN 'With Allergies' ELSE 'Without Allergies' END AS AllergyStatus,
        Age
    FROM Patient
) AS SubQuery
WHERE AllergyStatus = 'With Allergies'
GROUP BY AllergyStatus;
```

s   Messages

AllergyStatus	AverageAge
With Allergies	21

How many staff members, including doctors and nurses, are there in each department categorized by gender, and what are the results ordered by department name?

What is the percentage of male and female patients in each blood type category?

```sql
SELECT BloodType, Gender,
COUNT(*) AS TotalPatients,
(COUNT(*) * 100.0) / SUM(COUNT(*)) OVER(PARTITION BY BloodType) AS PercentageByBloodType
FROM Patient
GROUP BY BloodType, Gender;
```

Results Messages

	BloodType	Gender	TotalPatients	PercentageByBloodType
1	A+	F	2	25.000000000000
2	A+	M	6	75.000000000000
3	A-	F	1	50.000000000000
4	A-	M	1	50.000000000000
5	AB+	F	4	57.142857142857
6	AB+	M	3	42.857142857142
7	B+	F	3	30.000000000000
8	B+	M	7	70.000000000000
9	B-	F	1	50.000000000000
10	B-	M	1	50.000000000000
11	O+	F	8	72.727272727272
12	O+	M	3	27.272727272727

```sql
SELECT d.DepartmentName, AllStaff.Gender, COUNT(*) AS TotalStaff
FROM( SELECT Dept_ID, Gender FROM Staff
UNION ALL
SELECT Dept_ID, Gender FROM Doctor
UNION ALL
SELECT Dept_ID, Gender FROM Nurse ) as AllStaff
JOIN Department d ON AllStaff.Dept_ID = d.Dept_ID
GROUP BY d.DepartmentName, AllStaff.Gender
ORDER BY d.DepartmentName;
```

Results Messages

	DepartmentName	Gender	TotalStaff
1	Admissions	F	8
2	Admissions	M	13
3	Anesthetics	F	1
4	Anesthetics	M	3
5	Cardiology	F	4
6	Cardiology	M	3
7	Dentistry	F	2
8	Dentistry	M	4
9	Dermatology	F	5
10	Dermatology	M	1
11	Finance Department	F	2
12	Finance Department	M	1
13	Gastroenterology	F	2
14	Gastroenterology	M	2
15	General Services	F	3
16	General Services	M	5
17	Gynecology	F	4
18	Hematology	F	2
19	Hematology	M	2
20	Human Resources	F	2
21	Human Resources	M	2
22	Neurology	F	5
23	Neurology	M	1
24	Nutrition and Die...	F	4
25	Oncology	F	3
26	Oncology	M	1
27	Ophthalmology	F	2
28	Ophthalmology	M	3
29	Otolaryngology	F	2
30	Otolaryngology	M	2
31	Pharmacy	F	2
32	Pharmacy	M	1
33	Physiotherapy	F	2
34	Physiotherapy	M	2
35	Psychiatry	F	2
36	Psychiatry	M	2
37	Urology	F	2
	Urology	M	3

25

What is the department name and the number of nurses working in each department?

```sql
SELECT d.DepartmentName, COUNT(n.NurseID) AS NumberOfNurses
FROM Nurse n
INNER JOIN Department d ON n.Dept_ID = d.Dept_ID
GROUP BY d.DepartmentName;
```

Results Messages

	DepartmentName	NumberOfNurses
1	Anesthetics	2
2	Cardiology	2
3	Dentistry	2
4	Dermatology	2
5	Gastroenterology	2
6	Gynecology	2
7	Hematology	2
8	Neurology	2
9	Nutrition and Dietetics	2
10	Oncology	2
11	Ophthalmology	2
12	Otolaryngology	2
13	Physiotherapy	2
14	Psychiatry	2
15	Urology	2

26

who patients have upcoming appointments and what is their contact information?

```sql
SELECT Patient.PatientID, Patient.FirstName, Patient.LastName, Patient.PhoneNumber, Appointments.AppointmentDate
FROM Patient
INNER JOIN Appointments ON Patient.PatientID = Appointments.PatientID
WHERE Appointments.AppointmentDate >= GETDATE();
```

Results Messages

	PatientID	FirstName	LastName	PhoneNumber	AppointmentDate
1	110134	Saud	Fars	0505051088	1445-11-04
2	110132	Maha	Ibrahim	0557652211	1445-11-09
3	110129	Asmaa	Omar	0553893275	1445-11-09
4	110131	Yoosef	Majed	0509712764	1445-11-09
5	110121	Haya	Rashend	050743296834	1445-11-09
6	110135	Farah	Isa	0505999887	1445-11-29
7	110113	Saleh	Ahamad	0504894258	1445-11-29
8	110118	Bayan	Salman	0505441443	1445-11-29
9	110123	Luna	Sultan	0505587433	1445-11-29
10	110140	Saud	Malk	0505875432	1445-12-21
11	110116	Leena	Ahamad	0538815577	1445-12-21
12	110133	Khalid	Abdelrahman	0505067433	1445-12-21
13	110119	Omar	Usama	0537665745	1445-12-21
14	110136	Marwan	Malk	0509871234	1445-12-21

27

What are the top 5 salaries for doctors excluding those in the Urology department?

```
SELECT top 5*
FROM Doctor
WHERE Dept_ID != (SELECT Dept_ID
FROM Department
WHERE DepartmentName = 'Urology')
ORDER BY salary DESC ;
```

Results | Messages

	DoctorID	FirstName	LastName	Gender	Nationality	salary	Certification	Qualification	Dept_ID
1	2204	George	Chalkiadis	M	Saudi	60000.00	MD,BLS	Anesthesiologist	3208
2	2208	Marah	Abdulkarim	F	Saudi	60000.00	MD,ABO	Dermatologists	3137
3	2205	Saud	Turki	M	Saudi	56000.00	MD,ABA	Consultant Anaesthetist	3208
4	2238	Mohammed	Abdelrahman	M	Saudi	54000.00	MD	Nephrologist	6444
5	2239	Ling	Chee	F	Chinese	54000.00	MD	Nephrologist	6444

28

Who is the patient tested in the lab on February 29, 2024, and what are the details of the test?

```
SELECT  CL.ResultID, CL.MedicalRecordID,  CL.PatientID,  P.FirstName,P.LastName, CL.ResultFile,  CL.ResultDate
FROM ClinicalLaboratory CL, Patient P
WHERE  CL.PatientID = P.PatientID AND CL.ResultDate = '2024-02-29';
```

s   Messages

ResultID	MedicalRecordID	PatientID	FirstName	LastName	ResultFile	ResultDate
4403	9917	110117	Yousef	Zaid	Blood_test_surgery.jpg	1445-08-19

29

What are the names of doctors, along with their appointment counts and status, for appointments scheduled on March 30, 2024, between 12:00 PM and 5:59 PM?

```sql
SELECT  D.FirstName, D.LastName, AppointmentCount,
    CASE
        WHEN AppointmentCount > 3 THEN 'BUSY'
        ELSE 'available'
    END AS DoctorStatus
FROM (
    SELECT DoctorID, AppointmentDate, COUNT(*) AS AppointmentCount
    FROM Appointments
    WHERE AppointmentDate = '2024-03-30' AND ( AppointmentTime LIKE '12%' OR AppointmentTime LIKE '13%' OR  AppointmentTime LIKE '14%' OR AppointmentTime LIKE '15%' OR
    AppointmentTime LIKE '16%' OR AppointmentTime LIKE '17%')
    GROUP BY DoctorID, AppointmentDate
) AS p
INNER JOIN Doctor D ON p.DoctorID = D.DoctorID;
```

FirstName	LastName	AppointmentCount	DoctorStatus
Rada	Saleh	1	available
Ashraf	Hamad	4	BUSY

30

How are staff members categorized into salary categories ("Low-Paid," "Medium-Paid," or "High-Paid") based on their average salaries, grouped by role and gender, and ordered by ascending average salary?

```sql
SELECT
CASE
WHEN AVG(Salary) <= 20000 THEN 'Low-Paid'
WHEN AVG(Salary) > 20000 AND AVG(Salary) <= 30000 THEN 'Medium-Paid'
ELSE 'High-Paid'
END AS SalaryCategory,
Role,
Gender,
ROUND(AVG(Salary), 2) AS AvgSalary
FROM Staff
GROUP BY Role, Gender
ORDER BY AvgSalary ASC;
```

	SalaryCategory	Role	Gender	AvgSalary
1	Low-Paid	Security Officer	M	6000.000000
2	Low-Paid	Receptionist	M	7087.500000
3	Low-Paid	Receptionist	F	7914.290000
4	Low-Paid	Patient Services Assistants	M	8500.000000
5	Low-Paid	Social Work	M	10333.330000
6	Low-Paid	Social Work	F	11000.000000
7	Low-Paid	Maintenance Technician	M	12000.000000
8	Low-Paid	Training and Development Officer	M	16000.000000
9	Low-Paid	Recruitment Specialist	F	17000.000000
10	Low-Paid	administrative assistant	M	18000.000000
11	Low-Paid	Financial Analyst	F	20000.000000
12	Low-Paid	HR Coordinator	M	20000.000000
13	Medium-Paid	HR Manager	F	23000.000000
14	Medium-Paid	Budget Analyst	M	23000.000000
15	Medium-Paid	Accountant	F	25000.000000
16	High-Paid	Pharmacist	F	34000.000000
17	High-Paid	Pharmacist	M	36000.000000
18	High-Paid	Patient Services Assistants	F	36333.330000

31

How many patients have celiac disease, and what are their blood type and age range?

```sql
SELECT p.PatientID, p.BloodType,
CASE WHEN p.BloodType LIKE '%+' THEN '+'
WHEN p.BloodType LIKE '%-' THEN '-'
ELSE 'Unknown' END AS BloodTypeRh,
CASE WHEN p.age < 18 THEN 'Under 18'
WHEN p.age BETWEEN 18 AND 30 THEN '18-30'
WHEN p.age BETWEEN 31 AND 50 THEN '31-50'
ELSE 'Over 50' END AS AgeRange
FROM Patient p
JOIN MedicalRecord mr ON p.PatientID = mr.PatientID
WHERE mr.Diagnosis = 'Celiac Disease';
```

Results   Messages

	PatientID	BloodType	BloodTypeRh	AgeRange
1	110125	A-	-	31-50
2	110127	A+	+	31-50
3	110138	O+	+	Over 50

32

What appointments are scheduled for the Dentistry department?

```sql
SELECT *
FROM Appointments
WHERE Dept_ID = (
SELECT Dept_ID
FROM Department
WHERE DepartmentName LIKE 'Dentistry'
);
```

Results   Messages

	AppointmentDate	AppointmentTime	DoctorID	PatientID	Dept_ID
1	1445-06-28	09:15:00	2236	110116	3111
2	1445-09-20	12:30:00	2237	110128	3111
3	1445-09-20	14:00:00	2237	110109	3111
4	1445-09-20	15:30:00	2237	110132	3111
5	1445-09-20	17:00:00	2237	110130	3111
6	1445-11-09	13:00:00	2237	110132	3111

33

What is the renewal status of each department based on their creation date?(if the department was opened before 2022-06-1 then it needs a renewal)

```sql
SELECT DepartmentName,
CASE
WHEN creationdate < '2022-06-01' THEN 'Needs Renewal'
ELSE 'Does Not Need Renewal'
END AS RenewalStatus
FROM Department;
```

Results | Messages

	DepartmentName	RenewalStatus
1	Ophthalmology	Does Not Need Renewal
2	Cardiology	Needs Renewal
3	Physiotherapy	Needs Renewal
4	Gynecology	Needs Renewal
5	Nutrition and Dietetics	Does Not Need Renewal
6	Pharmacy	Needs Renewal
7	Gastroenterology	Needs Renewal
8	Psychiatry	Does Not Need Renewal
9	Otolaryngology	Does Not Need Renewal
10	Hematology	Needs Renewal
11	Oncology	Needs Renewal
12	Dentistry	Does Not Need Renewal
13	Dermatology	Does Not Need Renewal
14	Anesthetics	Needs Renewal
15	Urology	Needs Renewal
16	Neurology	Does Not Need Renewal
17	Admissions	Needs Renewal
18	General Services	Needs Renewal
19	Finance Department	Needs Renewal
20	Human Resources	Needs Renewal

34

Which clinic has the most appointments?

```sql
SELECT TOP 1 DepartmentName, AppointmentCount
FROM (
SELECT d.DepartmentName, COUNT(*) AS AppointmentCount
FROM Appointments a
JOIN Department d ON a.Dept_ID = d.Dept_ID
GROUP BY d.DepartmentName
) AS DepartmentAppointments
ORDER BY AppointmentCount DESC;
```

Results | Messages

	DepartmentName	AppointmentCount
1	Dermatology	7

35

Add a new attribute called yearsOfService to the table nurse and take only integers

```
ALTER TABLE Nurse
ADD YearsOfService INT;
select * from Nurse
```

IS Messages

NurseID	FirstName	LastName	Gender	Nationality	salary	Certification	Dept_ID	YearsOfService
120201	Sophia	Khan	F	Pakistani	23000.00	Certified Psychiatric Nurse	1202	NULL
120202	Ariana	Smith	F	American	21000.00	Certified Psychiatric Nurse	1202	NULL
120301	Emma	Gomez	F	American	21000.00	Certified Nutrition and Dietetics Nurse	203	NULL
120302	Emily	Johnson	F	American	23000.00	Certified Nutrition and Dietetics Nurse	203	NULL
123101	Maria	Chang	F	Chinese	22000.00	Certified Dental Nurse	3111	NULL
121102	Michael	Nguyen	M	Vietnamese	33000.00	Certified Dental Nurse	3111	NULL
123901	Hazza	Faisal	M	Saudi	22000.00	Certified Physiotherapy Nurse	119	NULL
123902	Husham	Hussen	M	Saudi	22000.00	Certified Physiotherapy Nurse	119	NULL
123001	Rana	Ali	F	Egyptian	26000.00	Certified Gynecology Nurse	130	NULL
123002	Joury	Nuni	F	Saudi	24000.00	Certified Gynecology Nurse	130	NULL
123201	Emily	Johnson	F	American	20000.00	Certified Registered Nurse Anesthetist	3200	NULL
123202	Michael	Garcia	M	American	20000.00	Certified Registered Nurse Anesthetist	3200	NULL
123701	Ahad	Yousef	F	Saudi	24000.00	Certified Dermatology Nurse	3137	NULL
123702	Maria	Mazn	F	Saudi	21000.00	Certified Dermatology Nurse	3137	NULL
124201	Mashal	Hussen	M	Saudi	23000.00	Certified Otolaryngology Nurse	2042	NULL
124202	Sarah	Saleh	F	Saudi	23000.00	Certified Otolaryngology Nurse	2042	NULL
124401	Fouz	Ibrahiam	F	Saudi	22000.00	Certified Neurology Nurse	6044	NULL
124402	Selena	Smith	F	American	20000.00	Certified Neurology Nurse	6044	NULL
124501	Ghadi	Ahmed	F	Saudi	20000.00	Certified Oncology Nurse	3045	NULL
124502	Alotool	Eyad	F	Saudi	21000.00	Certified Oncology Nurse	3045	NULL
124601	Mazn	Hmood	M	Saudi	23000.00	Certified Ophthalmic Nurse	46	NULL
124602	Aram	Abdulaziz	F	Saudi	22000.00	Certified Ophthalmic Nurse	46	NULL
124001	Draa	Talal	F	Saudi	22000.00	Certified Gastroenterology Nurse	1048	NULL
124002	Abdelkader	Aimen	M	Saudi	25000.00	Certified Gastroenterology Nurse	1048	NULL
125501	Loui	Abdelkader	M	Saudi	25000.00	Certified Hematology Nurse	2055	NULL
125502	Husham	Fars	M	Saudi	26000.00	Certified Hematology Nurse	2055	NULL
125701	Amal	Ameer	F	Saudi	24000.00	Certified Urology Nurse	4057	NULL
125702	Hazm	Adeeb	M	Saudi	22000.00	Certified Urology Nurse	4057	NULL
125801	Sophia	Jed	F	Egyptian	22000.00	Certified Cardiac Nurse	58	NULL
125802	Nada	Osamah	F	Saudi	21000.00	Certified Cardiac Nurse	58	NULL

36

What is the most needed blood type?

```
SELECT TOP 1 BloodType, COUNT(*) AS NumPatients
FROM Patient
GROUP BY BloodType
ORDER BY COUNT(*) DESC;
```

Results Messages

	BloodType	NumPatients
1	O+	11

37

How many families with insurance are registered at the hospital (assuming insurance number uniquely identifies a family)?

```sql
SELECT  InsuranceNumber, COUNT(*) AS FamilyMembers
FROM Patient
WHERE InsuranceNumber NOT LIKE 'No Insurance'
GROUP BY InsuranceNumber
HAVING COUNT(*) > 1;
```

InsuranceNumber	FamilyMembers
111-021-001	2
119-083-321	2
224-443-343	2
083-993-001	2

38

What is the count of doctors for each certification, grouped by certification?

```sql
SELECT CERTIFICATION, COUNT(*) AS DoctorCount
FROM DOCTOR
GROUP BY CERTIFICATION
ORDER BY CERTIFICATION;
```

	CERTIFICATION	DoctorCount
1	Bachelors degree in Psychology,MSP	1
2	BHSc, MDent	1
3	MBBS, MD, FRANZCO, FRACS	1
4	Bachelors degree in Psychology,MAP	1
5	BDSc, MDSc, MRACDS (Ortho), FRACDS	1
6	BDSc, MRACDS (GDP)	1
7	BS,MD,DSc,FRACS, FAAP	1
8	CNS	1
9	CNS,RDN	1
10	DDS,MSc,PHD	1
11	DO	1
12	DPT	2
13	ENT,MD	2
14	MBBS, FRANZCO	2
15	MD	14
16	MD,ABA	1
17	MD,ABD	1
18	MD,ABIM	2
19	MD,ABU	1
20	MD,BLS	1
21	MD,FAAP	1
22	MD,FRACS	1
23	MD,GYN,REI	1
	MD,MIGS	

39

How many patients have allergies to specific products such as milk or eggs?

```
SELECT PatientID , FirstName , LastName , Allergies
FROM Patient WHERE Allergies LIKE '%Milk%' OR Allergies LIKE '%Eggs%';
```

Results   Messages

	PatientID ⌄	FirstName ⌄	LastName ⌄	Allergies ⌄
1	110106	Dana	Mohamed	Eggs
2	110117	Yousef	Zaid	No Milk
3	110118	Manar	Rayan	Milk
4	110127	Osamah	Husham	Eggs

40

What are the first names, last names, certifications, and department names of nurses?

```
SELECT Nurse.FirstName, Nurse.LastName, Nurse.Certification, Department.DepartmentName
FROM Nurse
FULL JOIN Department ON Nurse.Dept_ID = Department.Dept_ID;
```

FirstName ⌄	LastName ⌄	Certification ⌄	DepartmentName ⌄
Sophia	Khan	Certified Psychiatric Nurse	Psychiatry
Arlene	Smith	Certified Psychiatric Nurse	Psychiatry
Emma	Gomez	Certified Nutrition and Dietetics Nurse	Nutrition and Dietetics
Emily	Johnson	Certified Nutrition and Dietetics Nurse	Nutrition and Dietetics
Maria	Chang	Certified Dental Nurse	Dentistry
Michael	Nguyen	Certified Dental Nurse	Dentistry
Maiza	Faisal	Certified Physiotherapy Nurse	Physiotherapy
Husham	Hussen	Certified Physiotherapy Nurse	Physiotherapy
Rama	Ali	Certified Gynecology Nurse	Gynecology
Joury	Hani	Certified Gynecology Nurse	Gynecology
Emily	Johnson	Certified Registered Nurse Anesthetist	Anesthetics
Michael	Garcia	Certified Registered Nurse Anesthetist	Anesthetics
Ahad	Yousef	Certified Dermatology Nurse	Dermatology
Maria	Mazn	Certified Dermatology Nurse	Dermatology
Mashal	Hussen	Certified Otolaryngology Nurse	Otolaryngology
Sarah	Salen	Certified Otolaryngology Nurse	Otolaryngology
Faul	Ibrahim	Certified Neurology Nurse	Neurology
Salema	Smith	Certified Neurology Nurse	Neurology
Ghadi	Ahmed	Certified Oncology Nurse	Oncology
Alktout	Eyad	Certified Oncology Nurse	Oncology
Muin	Hamed	Certified Ophthalmic Nurse	Ophthalmology
Aram	Abdulaziz	Certified Ophthalmic Nurse	Ophthalmology
Drua	Talal	Certified Gastroenterology Nurse	Gastroenterology
Abdelbaser	Aimen	Certified Gastroenterology Nurse	Gastroenterology
Laui	Abdelbaser	Certified Hematology Nurse	Hematology
Husham	Fary	Certified Hematology Nurse	Hematology
Amal	Anwer	Certified Urology Nurse	Urology
Haim	Adeem	Certified Urology Nurse	Urology
Sophia	Jad	Certified Cardiac Nurse	Cardiology
Nada	Osamah	Certified Cardiac Nurse	Cardiology
NULL	NULL	NULL	Pharmacy
NULL	NULL	NULL	Admissions
NULL	NULL	NULL	General Services
NULL	NULL	NULL	Finance Department
NULL	NULL	NULL	Human Resources

41

How many patients are there in each department, and what are their respective department names?

```sql
SELECT d.DepartmentName, COUNT(a.AppointmentDate) AS NumAppointments
FROM Department d
LEFT JOIN Appointments a ON d.Dept_ID = a.Dept_ID
GROUP BY d.DepartmentName
HAVING COUNT(a.AppointmentDate) > 0
ORDER BY NumAppointments DESC;
```

Results | Messages

DepartmentName	NumAppointments
Dermatology	7
Dentistry	6
Gastroenterology	5
Physiotherapy	5
Psychiatry	3
Neurology	3
Ophthalmology	3
Cardiology	2
Gynecology	1
Nutrition and Dietetics	1

42

Which male patients have appointments wiyh an oncologist?

```sql
SELECT DISTINCT P.FirstName , P.LastName
FROM Patient P, Appointments A, Department Dept
WHERE Dept.DepartmentName = 'Oncology' AND A.PatientID = P.PatientID AND P.PatientID NOT IN
    ( SELECT PatientID
      FROM Patient
      WHERE Gender = 'F' );
```

Messages

FirstName	LastName
Khalid	Abdelrahman
Fahad	Abdulaziz
Saleh	Ahemad
Yahya	Bader
Saud	Fars
Firas	Fasial
Sulaiman	Hamed
Osamah	Husham
Hussam	Ibrahiam
Yousef	Majed
Marwan	Malk
Saad	Malk
Omar	Osamah
Nasser	Salah
Wttam	Salman

43

Which patients have a Dental checkup?

```sql
SELECT FirstName, LastName
  FROM Patient
  WHERE PatientID IN (
        SELECT PatientID
        FROM MedicalRecord
        WHERE Diagnosis = 'Dental checkup');
```

ts   Messages

FirstName	LastName
Rand	Fasial
Leena	Ahemad
Fahad	Abdulaziz
Hussam	Ibrahiam

44

What are the details of nurses who work in the Gynecology department?

```sql
SELECT n.NurseID, n.FirstName, n.LastName, n.Certification
FROM Nurse n
INNER JOIN Department d ON n.Dept_ID = d.Dept_ID
WHERE d.DepartmentName = 'Gynecology';
```

ts   Messages

NurseID	FirstName	LastName	Certification
123001	Rama	Ali	Certified Gynecology Nurse
123002	Joury	Hani	Certified Gynecology Nurse

45

Change the salary to
all nurses who work
in Psychiatry to
25000

```
UPDATE Nurse
SET salary = 25000
WHERE Dept_ID = 01202;

select *from nurse WHERE Dept_ID = 01202;
```

lts   Messages

NurseID	FirstName	LastName	Gender	Nationality	salary	Certification	Dept_ID
120201	Sophia	Khan	F	Pakistani	25000.00	Certified Psychiatric Nurse	1202
120202	Ariana	Smith	F	American	25000.00	Certified Psychiatric Nurse	1202

```
SELECT d.DepartmentName, COUNT(*) AS NumberOfDoctors
FROM Department d
LEFT JOIN Doctor doc ON d.Dept_ID = doc.Dept_ID
GROUP BY d.DepartmentName
HAVING COUNT(*) > 1
ORDER BY NumberOfDoctors DESC;
```

46

Results   Messages

	DepartmentName	NumberOfDoctors
1	Cardiology	5
2	Dentistry	4
3	Dermatology	4
4	Neurology	4
5	Urology	3
6	Ophthalmology	3
7	Otolaryngology	2
8	Physiotherapy	2
9	Psychiatry	2
10	Gastroenterology	2
11	Gynecology	2
12	Hematology	2
13	Anesthetics	2
14	Nutrition and Di…	2
15	Oncology	2

How many doctors are there in each
department, and what are their
respective department names?

47

Set all the salary staff members who work in Admissions department to 15000

```sql
UPDATE Staff
SET salary = 15000
WHERE Dept_ID = 08873;


select * from staff WHERE Dept_ID = 08873;
```

lts   Messages

StaffID	FirstName	LastName	Gender	Nationality	salary	Role	Dept_ID
311901	Nora	Abdullah	F	Saudi	15000.00	Social Work	8873
311902	Zain	Ibrahiam	M	Saudi	15000.00	Social Work	8873
311903	Bader	Rakan	M	Jordanian	15000.00	Social Work	8873
311904	Braa	Jad	M	Jordanian	15000.00	Social Work	8873
311905	Eyad	Fars	M	Saudi	15000.00	Receptionist	8873
311906	Aryam	Abdulkareem	F	Saudi	15000.00	Receptionist	8873
311907	Zayd	Mohammed	M	Saudi	15000.00	Receptionist	8873
311908	Kadi	Saud	F	Saudi	15000.00	Receptionist	8873
311909	Rana	Majad	F	Saudi	15000.00	Receptionist	8873
311910	Rahaf	Salem	F	Saudi	15000.00	Receptionist	8873
311911	Raghad	Yousef	F	Saudi	15000.00	Receptionist	8873
311912	Majed	Saleh	M	Saudi	15000.00	Receptionist	8873
311913	Isa	Ahemad	M	Egyptian	15000.00	Receptionist	8873
311914	Malik	Abdullah	M	Saudi	15000.00	Receptionist	8873
311915	Alanoud	Abdulaziz	F	Saudi	15000.00	Receptionist	8873
311916	Musa	Firas	M	Saudi	15000.00	Receptionist	8873
311917	Abdulrahman	Saad	M	Saudi	15000.00	Receptionist	8873
311918	Refal	Tamim	F	Saudi	15000.00	Receptionist	8873
311919	Nawaf	Fasial	M	Saudi	15000.00	Receptionist	8873
311920	Turki	Fahad	M	Saudi	15000.00	administrative assistant	8873
311921	Thamer	Khalid	M	Saudi	15000.00	administrative assistant	8873

48

Who are the male receptionists with salaries between $8000 and $9000?

```sql
select  FirstName + ' ' + LastName AS Name, salary
from Staff
where Gender ='M' and salary between 8000 AND 9000 and role ='Receptionist';
```

lts   Messages

Name	salary
Zayd Mohammed	8100.00
Majed Saleh	8300.00
Musa Firas	8100.00

49

Which time slots have the most appointments in the hospital?

```sql
SELECT TOP 1 AppointmentTime, COUNT(*) AS AppointmentCount
FROM Appointments
GROUP BY AppointmentTime
ORDER BY AppointmentCount DESC;
```

Results   Messages

	AppointmentTime	AppointmentCount
1	11:30:00	4

50

Delete the patient feedback to all the patients who don't have any suggestions

```sql
919   DELETE FROM PatientFeedback
920   WHERE Suggestions LIKE 'No Suggestions%';
921
922
923   select *
924   FROM PatientFeedback
925
```

Results   Messages

	FeedbackID	PatientID	SatisfactionRate	Suggestions	FeedbackDate
1	7703	110107	3	Waiting time was a bit long, but overall satisfied w...	1445-08-27
2	7705	110118	2	Would appreciate more detailed explanations from the...	1445-08-19
3	7707	110113	4	Improved signage needed within the hospital.	1445-07-15
4	7708	110115	3	Would like more comfortable waiting areas.	1445-09-20
5	7710	110120	2	Suggest providing more amenities for chemotherapy pa...	1445-07-05