

HEALTH CARE DATABASE

CITY MD URGENT CARE DATABASE SYSTEM

Table of Contents

Deliverable 3

Introduction	2
Current Problems	2
Development Motivation	2
Benefits and Users	3
Business Rules	3
User Requirements	5
Entity Relation Diagram	6

Introduction

Current Problems

Areas of Focus:

- **Urgent Care Health Sector Staff Shortage and High Patient Volume**

The urgent care sector is indispensable for providing immediate medical attention to patients with non-life-threatening conditions. However, the increasing demand for urgent care services, combined with staff shortages, presents a significant challenge. With limited personnel managing large volumes of patients, there is a heightened need for efficient data management systems to streamline operations and ensure high-quality care.

These challenges are further worsened by inefficient and outdated data management practices, leading to operational inefficiencies, compromised patient care, and increased workload on existing staff.

The current data management problem am seeking to address here are Staff shortages and overwhelming administrative burden, inefficient data retrieval or patient flow management systems and lack of real-time data access, The proposed database would be tailored to address these issues, ensuring data integrity, reduce additional strain on already overworked staff, reducing redundancy, and improving overall operational efficiency.

Development Motivation

Motivation for the Database is to address these challenges faced by Urgent care such as overworking of staffs within the urgent care system, the database is under development with the hope

of helping and allowing staffs to access up to date info on patients' treatment plan, treatment status and availability of resources and provide efficient day to day operations allowing seamless data sharing with other healthcare providers which will improve continuity of improved healthcare.

Benefits & Users

The potential benefit of this database will yield numerous benefits such as reduced staff workload, faster decision making with fast access to accurate patient records and mainly improved patient flow with the use of this database which will manage patient wait time leading to shorter wait times, room assignments for patients, reduce cost and improve operational efficiency with enhanced patient care in the urgent care.

The database will also improve data accuracy and reduce data redundancy.

For this database, the benefit also includes Enhancing operational efficiency and Streamlining data management processes.

The end goal and benefit will be to facilitate better decision-making through improved data accessibility and availability, remove data anomalies and lastly Ensures data integrity.

The potential users of the newly to be integrated and developed database for the urgent care will be urgent care and health care providers such as the Doctors, Nurses, Technicians, this will also include the urgent care Administrators, other healthcare facilities and lastly the Patients.

Business Rules

City MD Urgent care has a vast number of staff. The attribute of staff is Staff_ID (Primary Key) with other attributes such as First Name, Last Name, Role, Address, Email, Hire Date and Phone Number

The Staff entity has three subtypes' Doctors, Nurses and Administrator. A Staff may be or may not be either a Doctor, Nurse or Administrator, but a staff in one of these subtypes cannot be at the same time one of the other subtypes.

Also, all staff is managed by at least one manager whom they report to.

Doctor-Nurse-Patient Relationship

Doctors, Nurses and Administrators are employees of the City MD urgent care, the qualifications and specialization of each Doctors must be tracked by the database. Nurses shift hours must be tracked by the database as well.

Administrators are responsible for patients related activities such as registering patients, patient appointment, placing doctor patients' medication order, managing staff schedules and issuing patient bills for service.

Every patient is assigned to a Doctor and Nurse, each patient visitation with the date and time and assigned to a room during examination.

The primary attribute for the Patient entity will be Patient ID as each registered patient is assigned to a room.

Doctors are primarily responsible for patient diagnostics, test type, test result and other attributes, a doctor can attend to one or more patient during the visitation while a patient can only have one or no doctor.

Every Nurse is assigned to at one or many patients, while each patient must be assigned to at least one Nurse

Staff-Visit Relationship

A staff such as a doctor, nurse can attend to multiple visits for patient, but each visit must be assigned to one staff

Visit-Billing Relationship

Every patient visit generates one bill, and each bill must correspond to one visit.

The billing will have self-payment and insurance payment as subtype, and health insurance is issued to one patient, but patient do not need to have health insurance and can opt out for self-payment option

Patient -Appointment Relationship

Every patient can schedule multiple appointments, but each appointment must have only one patient.

Appointment-Treatment Relationship

Each appointment can have zero to multiple appointment, and each treatment can also be associated with zero to many appointments.

Diagnostics-Visit Relationship

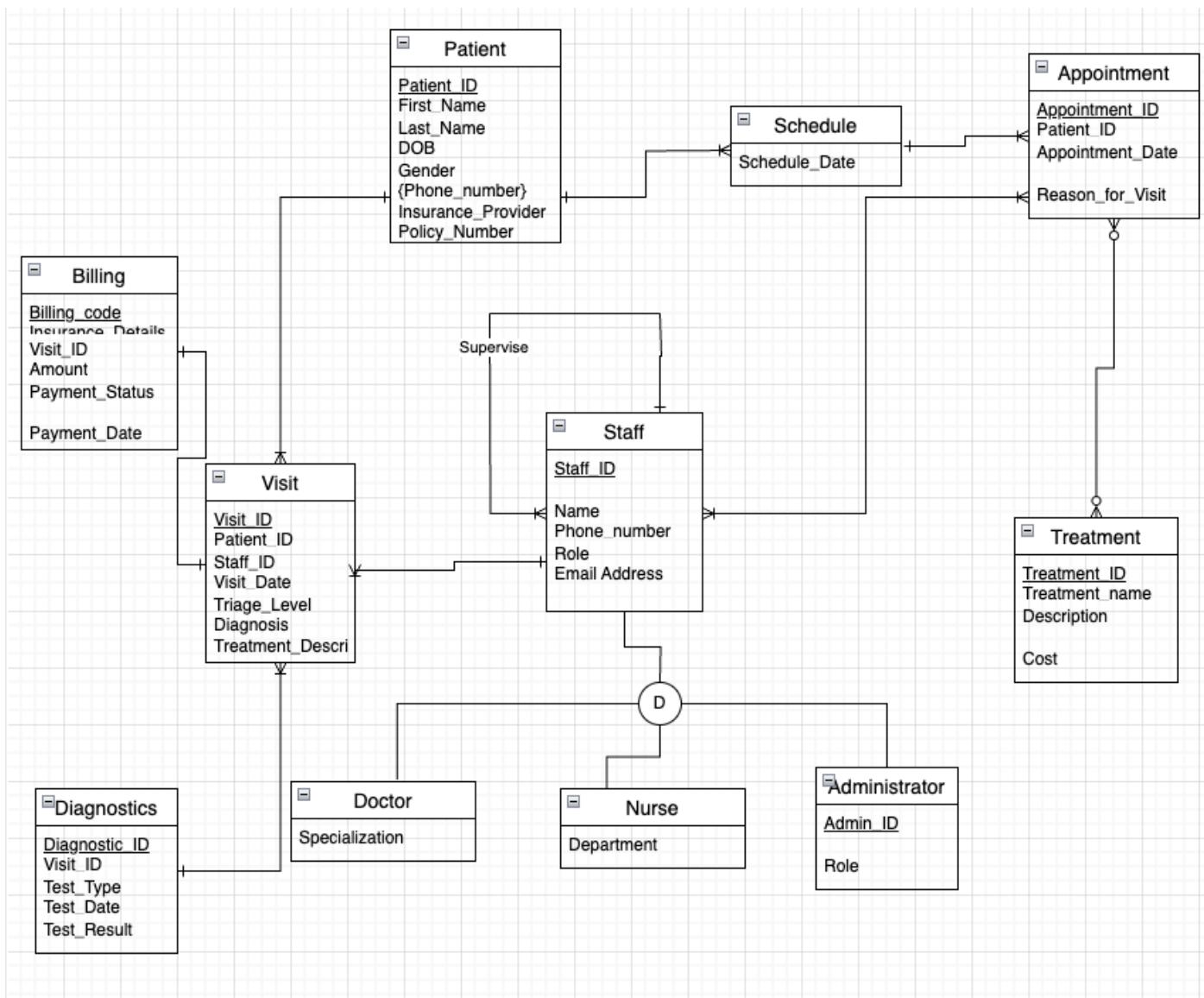
While each patient can have one to multiple diagnostics, each patient must have one visit.

User Requirements

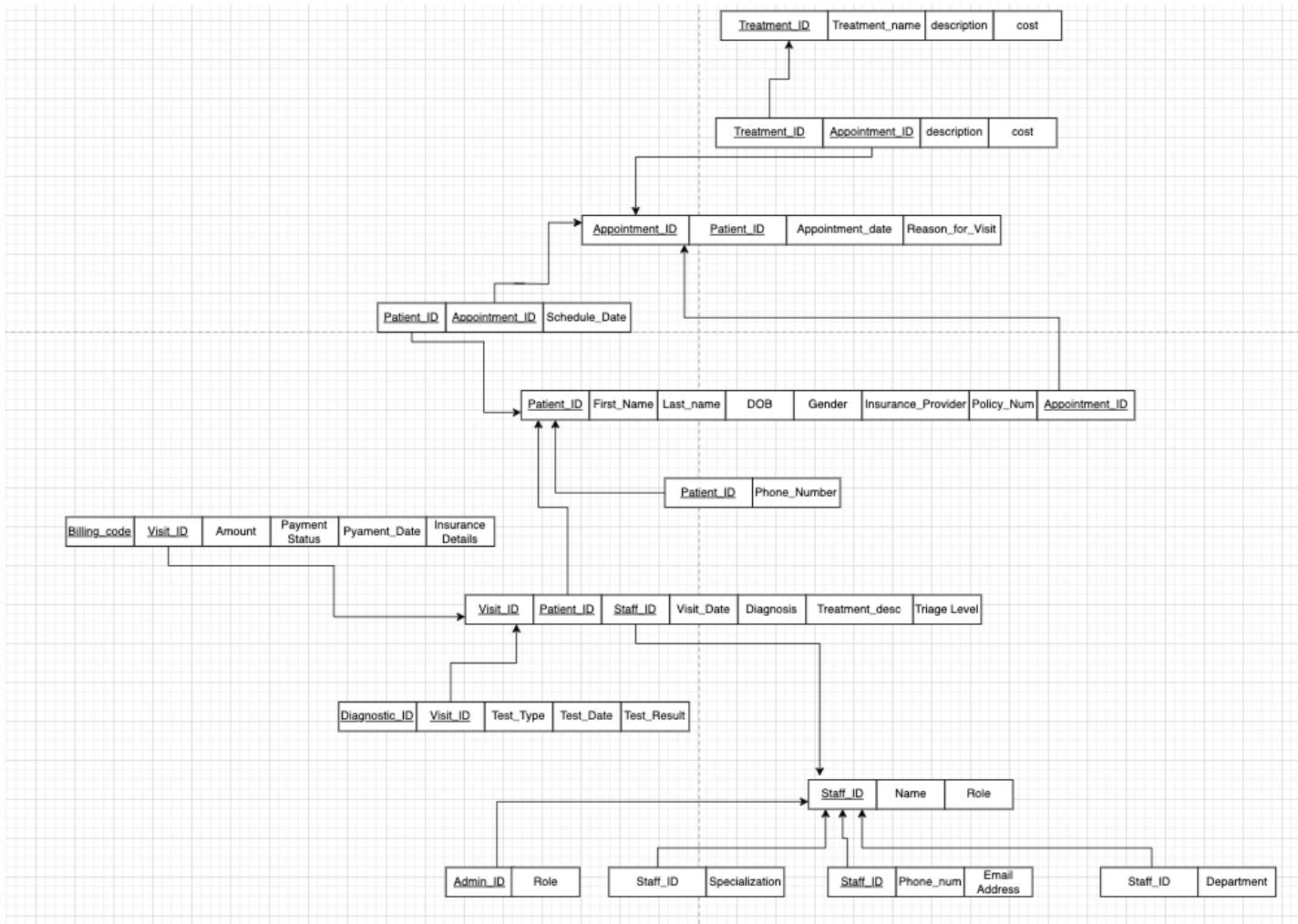
Database users will be the following type of City MD Staffs: Doctors, Nurses, Administrator

Users of the City MD Database will have access to patient appointment information, diagnostics tests, patient information, medical history and test results.

Enhanced Entity Relation Diagram



THIRD NORMAL FORM



SQL TABLES

```

CREATE TABLE STAFF (
    STAFF_ID VARCHAR(25) NOT NULL,
    SUPERVISOR VARCHAR(25),
    STAFF_NAME VARCHAR(25),
    STAFF_ADDRESS VARCHAR(30),

```

```
STAFF_ROLE VARCHAR(30),  
EMAIL_ADDRESS VARCHAR(20),  
PHONE_NUMBER VARCHAR(15),  
CONSTRAINT STAFF_PK PRIMARY KEY(STAFF_ID));
```

```
CREATE TABLE PATIENT (  
PATIENT_ID VARCHAR(10) NOT NULL,  
FIRST_NAME VARCHAR(25),  
LAST_NAME VARCHAR(25),  
GENDER VARCHAR(10),  
PHONE_NUMBER VARCHAR(15),  
POLICY_NUMBER VARCHAR(30),  
INSURANCE_PROVIDER VARCHAR(25),  
DOB DATE,  
CONSTRAINT PATIENT_PK PRIMARY KEY(PATIENT_ID));
```

```
CREATE TABLE TREATMENT (  
TREATMENT_ID VARCHAR(10) NOT NULL,  
TREATMENT_NAME VARCHAR(100),  
DESCRIPTION VARCHAR(100),  
COST VARCHAR(10),  
CONSTRAINT TREATMENT_PK PRIMARY KEY(TREATMENT_ID));
```

```
CREATE TABLE VISIT (  
VISIT_ID VARCHAR(10) NOT NULL,
```

```
PATIENT_ID VARCHAR(10) NOT NULL,  
#BILLING_CODE VARCHAR(10) NOT NULL,  
STAFF_ID VARCHAR(10) NOT NULL,  
#DIAGNOSTIC_ID VARCHAR(10) NOT NULL,  
VISIT_DATE DATE,  
TRIAGE_LEVEL VARCHAR(10),  
DIAGNOSIS VARCHAR(100),  
TREATMENT_DESCRIPTION VARCHAR(100),  
CONSTRAINT VISIT_PK PRIMARY KEY (VISIT_ID),  
CONSTRAINT VISIT_FK1 FOREIGN KEY (PATIENT_ID) REFERENCES PATIENT  
(PATIENT_ID),  
#CONSTRAINT VISIT_FK3 FOREIGN KEY (DIAGNOSTIC_ID) REFERENCES  
DIAGNOSTICS  
#(DIAGNOSTIC_ID),  
CONSTRAINT VISIT_FK4 FOREIGN KEY (STAFF_ID) REFERENCES STAFF  
(STAFF_ID));
```

```
CREATE TABLE DIAGNOSTICS (  
DIAGNOSTIC_ID VARCHAR(10) NOT NULL,  
VISIT_ID VARCHAR(10) NOT NULL,  
TEST_DATE DATE,  
TEST_TYPE VARCHAR(100),  
TEST_RESULT VARCHAR(100),  
CONSTRAINT DIAGNOSTICS_PK PRIMARY KEY(DIAGNOSTIC_ID, VISIT_ID),  
CONSTRAINT DIAGNOSTICS_FK FOREIGN KEY (VISIT_ID) REFERENCES VISIT  
(VISIT_ID));
```

```
CREATE TABLE BILLING (
    BILLING_CODE VARCHAR(10) NOT NULL,
    VISIT_ID VARCHAR(10) NOT NULL,
    INSURANCE_DETAILS VARCHAR(25),
    AMOUNT VARCHAR(10),
    PAYMENT_STATUS VARCHAR(25),
    PAYMENT_DATE DATE,
    CONSTRAINT BILLING_PK PRIMARY KEY(BILLING_CODE, VISIT_ID),
    CONSTRAINT BILLING_FK FOREIGN KEY (VISIT_ID) REFERENCES VISIT(VISIT_ID)
);
```

```
ALTER TABLE VISIT ADD COLUMN BILLING_CODE VARCHAR(10);
ALTER TABLE VISIT ADD CONSTRAINT VISIT_FK2 FOREIGN KEY (BILLING_CODE,
VISIT_ID) REFERENCES BILLING(BILLING_CODE, VISIT_ID);
```

```
CREATE TABLE DOCTOR (
    SPECIALIZATION VARCHAR(25),
    STAFF_ID VARCHAR(10) NOT NULL,
    CONSTRAINT DOCTOR_PK PRIMARY KEY (STAFF_ID),
    CONSTRAINT DOCTOR_FK FOREIGN KEY (STAFF_ID) REFERENCES
STAFF(STAFF_ID)
);
```

```
CREATE TABLE NURSE (
    DEPARTMENT VARCHAR(25),
    STAFF_ID VARCHAR(10) NOT NULL,
    CONSTRAINT NURSE_PK PRIMARY KEY (STAFF_ID),
    CONSTRAINT NURSE_FK FOREIGN KEY (STAFF_ID) REFERENCES STAFF(STAFF_ID)
);
```

```
CREATE TABLE ADMINISTRATOR (
    ADMIN_ID VARCHAR(10) NOT NULL,
    STAFF_ID VARCHAR(10) NOT NULL,
    ROLE varchar(25),
    CONSTRAINT ADMINISTRATOR_PK PRIMARY KEY (STAFF_ID),
    CONSTRAINT ADMINISTRATIVE_FK FOREIGN KEY (ADMIN_ID) REFERENCES
    STAFF
    (STAFF_ID));
```

```
CREATE TABLE APPOINTMENT (
    APPOINTMENT_ID VARCHAR(10) NOT NULL,
    PATIENT_ID VARCHAR(10) NOT NULL,
    STAFF_ID VARCHAR(10) NOT NULL,
    TREATMENT_ID VARCHAR(10) NOT NULL,
    APPOINTMENT_DATE DATE,
    SCHEDULE_DATE DATE,
    REASON_FOR_VISIT VARCHAR(100),
    COST VARCHAR(10),
```

```
CONSTRAINT APPOINTMENT_PK PRIMARY KEY(APPOINTMENT_ID),
CONSTRAINT APPOINTMENT_FK1 FOREIGN KEY (PATIENT_ID) REFERENCES
PATIENT
(PATIENT_ID),
CONSTRAINT APPOINTMENT_FK2 FOREIGN KEY (STAFF_ID) REFERENCES STAFF
(STAFF_ID),
CONSTRAINT APPOINTMENT_FK3 FOREIGN KEY (TREATMENT_ID) REFERENCES
TREATMENT
(TREATMENT_ID);
```

DATA FOR THE SQL TABLES

#PATIENT

```
INSERT INTO PATIENT VALUES ('CM34240', 'JOHN','MENSAH', 'MALE','646-506-200','CG166563', 'CIGNA','1991-07-01');

INSERT INTO PATIENT VALUES ('CM34941', 'BOLAJI','MUYIWA', 'MALE','655-556-7111','BC126563', 'BLUECROSS','1990-12-24');

INSERT INTO PATIENT VALUES ('CM34742', 'JOHN','TUNJI', 'MALE','646-123-7111','SEIU165563','1199SEIU','1981-02-03');

INSERT INTO PATIENT VALUES ('CM34012', 'TOLA','SEUN', 'FEMALE','646-800-7111','AT166503', 'AETNA','1988-09-02');

INSERT INTO PATIENT VALUES ('CM34200', 'GBENGA','SEGUN', 'MALE','347-556-7111','AF106563', 'AFFINITY','1992-11-15');

INSERT INTO PATIENT VALUES ('CM31142', 'SANDHYA','GOPISETTY','FEMALE','800-556-7111','UN169563', 'UNITEDHEALTHCARE','1993-03-21');
```

INSERT INTO PATIENT VALUES ('CM34542', 'ARMINDA','SINGH','MALE','817-556-7111','EB164063', 'EMBLEM','1987-10-15');

INSERT INTO PATIENT VALUES ('CM34842', 'GOPAL','BOGANA','MALE','600-556-0511','HE168163', 'HEALTHFIRST','1981-01-13');

INSERT INTO PATIENT VALUES ('CM34942', 'CHIKA','UZOKWULW', 'MALE','247-556-7111','ME067563','METROPLUS','1982-08-10');

INSERT INTO PATIENT VALUES ('CM34042', 'CAESAR','ADOMAKO','MALE','425-556-7921','OS166563', 'OSCAR HEALTH','2000-04-10');

#STAFF #DOCTOR AND NURSE

INSERT INTO STAFF VALUES ('SM34242','WAYNE RONNEY', 'SUNDAY MUJIWA','123 SWANSEA ST,NY', 'DOCTOR','bmuyiwa@citymd.com', '646-555-9681');

INSERT INTO DOCTOR VALUES ('CARDIOLOGY','SM34242');

INSERT INTO STAFF VALUES ('TO31242','SATYA NADELLA', 'TUNJI OLAMUYIWA','466 JAMAICA AVE,NY', 'DOCTOR','TMUYIWA@citymd.com','347-556-7111');

INSERT INTO DOCTOR VALUES ('ER','TO31242');

INSERT INTO STAFF VALUES ('NG14092', 'ELON MUSK','NATHAN GREGORY','123 ONE WAY,REDMOND,NY','DOCTOR','NGREGORY@citymd.com','247-556-7111');

INSERT INTO DOCTOR VALUES ('GENERAL MEDICINE','NG14092');

INSERT INTO STAFF VALUES ('EP10042', 'TOM JOLLY','ETHAN PEYTON','45 MICROSOFT WAY,NY', 'DOCTOR','EPEYTHON@citymd.com','547-556-7111');

INSERT INTO DOCTOR VALUES ('FAMILY MEDICINE','EP10042');

INSERT INTO STAFF VALUES ('LA19042','SCOTT GRAHAM', 'LOLA ASHLEY','869 PULSAKI AVE,NY', 'NURSE','LASHLEY@citymd.com','547-4007-111');

INSERT INTO NURSE VALUES ('TRIAGE','LA19042');

INSERT INTO STAFF VALUES ('TK15542','MANEESH BABLANI', 'TOLA KARI', '456 ORLANDO ST, NY','NURSE','TKARI@citymd.com','718-400-7111');

INSERT INTO NURSE VALUES ('PEDIATRIC','TK15542');

INSERT INTO STAFF VALUES ('MR13442','AMIT KHAN', 'MALANDA RUST','101 FOREST AVE, NY', 'NURSE','MRUST@citymd.com','500-420-7111');

INSERT INTO NURSE VALUES ('TRIAGE','MR13442');

INSERT INTO STAFF VALUES ('SC10742', 'MALA ANAND','SCOTT COTA','189 ALVIN ST,NY', 'NURSE','MANAND@citymd.com','526-400-7111');

INSERT INTO NURSE VALUES ('PEDIATRIC','SC10742');

#TREATMENT

INSERT INTO TREATMENT VALUES ('CMU10101','Immunotherapy','therapy for immuno diseases','\$10000');

INSERT INTO TREATMENT VALUES ('CMU10102','Blood transfusion','2 blood transfusion','\$12000');

INSERT INTO TREATMENT VALUES ('CMU10103','IV fluid administration','dehydration','\$2000');

INSERT INTO TREATMENT VALUES ('CMU10104','Pain management injection','headache and body pain','\$1000');

INSERT INTO TREATMENT VALUES ('CMU10105','Antibiotic therapy','infections through sex','\$7000');

INSERT INTO TREATMENT VALUES ('CMU10106','Steroid treatment','Kidney issues','\$50000');

INSERT INTO TREATMENT VALUES ('CMU10107','Chemotherapy infusion','Cancer of the lungs','\$70000');

INSERT INTO TREATMENT VALUES ('CMU10108','Anticoagulant therapy','Blood clot','\$100000');

INSERT INTO TREATMENT VALUES ('CMU10109','Ultrasound','Pregnancy','\$5000');

INSERT INTO TREATMENT VALUES ('CMU10110','Electrocardiogram','Chest Pain','\$17000');

#VISIT

```
INSERT INTO VISIT VALUES ( 'CMD1001','CM34240', 'TO31242','2025-01-07','URGENT','Pneumonia','Antibiotics azithromycin/ceftriaxone','CMD50010' );

INSERT INTO VISIT VALUES ( 'CMD1002','CM34941','SM34242', '2025-02-09','NOT-URGENT', 'HEADACHE','ASPRIN','CMD50011');

INSERT INTO VISIT VALUES ( 'CMD1003','CM34742','NG14092', '2025-02-20','IMMEDIATE', 'BLEEDING INTERNAL','MRI SCAN','CMD50012');

INSERT INTO VISIT VALUES ( 'CMD1004','CM34012','EP10042', '2025-01-17','EMERGENT', 'BROKEN LEG','CAT SCAN','CMD50013');

INSERT INTO VISIT VALUES ( 'CMD1005','CM34200','EP10042', '2025-01-27','IMMEDIATE', 'INFECTION INTERNAL','Endoscopy with cauterization','CMD50014');

INSERT INTO VISIT VALUES ( 'CMD1006','CM31142','NG14092', '2025-01-14','IMMEDIATE', 'SEPSIS','IV fluids resuscitation','CMD50015');

INSERT INTO VISIT VALUES ( 'CMD1007','CM34542','LA19042', '2025-03-07','EMERGENT', 'Urinary Tract Infection','Phenazopyridine for pain','CMD50016');

INSERT INTO VISIT VALUES ( 'CMD1008','CM34842','TK15542', '2025-03-10','URGENT', 'Rotator Cuff Tear','Physical therapy','CMD50017');

INSERT INTO VISIT VALUES ( 'CMD1009','CM34942','MR13442', '2025-03-22','URGENT', 'Hip Fracture','hemiarthroplasty','CMD50018');

INSERT INTO VISIT VALUES ( 'CMD1010','CM34042','SC10742', '2025-03-27','IMMEDIATE', 'Acute Appendicitis','Appendectomy','CMD50019');
```

#BILLING

```
INSERT INTO BILLING VALUES ( 'CMD50010','CMD1001', 'CIGNA','$2000','PAID', '2024-03-30' );

INSERT INTO BILLING VALUES ( 'CMD50011','CMD1002', 'BLUECROSS','$5000','UNPAID', '2099-12-31' );

INSERT INTO BILLING VALUES ( 'CMD50012','CMD1003', '1199SEIU','$10000','OVERDUE', '2025-03-10' );

INSERT INTO BILLING VALUES ( 'CMD50013','CMD1004', 'AETNA', '$20000','UNPAID', '2099-12-31' );
```

```
INSERT INTO BILLING VALUES ( 'CMD50014','CMD1005', 'AFFINITY',
'$2500','PENDING', '2024-09-01' );

INSERT INTO BILLING VALUES ( 'CMD50015', 'CMD1006','UNITEDHEALTHCARE',
'$12000','PARTIALLY PAID', '2025-02-28' );

INSERT INTO BILLING VALUES ( 'CMD50016','CMD1007', 'EMBLEM','$200','PAID', '2025-
02-14' );

INSERT INTO BILLING VALUES ( 'CMD50017','CMD1008', 'HEALTHFIRST',
'$4000','PAID', '2025-03-31' );

INSERT INTO BILLING VALUES ( 'CMD50018','CMD1009', 'METROPLUS',
'$2000','FAILED', '2099-12-31' );

INSERT INTO BILLING VALUES ( 'CMD50019','CMD1010', 'OSCAR HEALTH',
'$22000','UNPAID', '2099-12-31' );
```

#DIAGNOSTICS

```
INSERT INTO DIAGNOSTICS VALUES ( 'CMD20201','CMD1001','2025-03-21', 'Basic
Metabolic Panel Blood Test', 'High Glucose: Diabetes' );

INSERT INTO DIAGNOSTICS VALUES ( 'CMD20202','CMD1002','2024-03-03', 'X-ray',
'Fracture visible' );

INSERT INTO DIAGNOSTICS VALUES ( 'CMD20203','CMD1003','2025-01-10', 'MRI
','Herniated disc');

INSERT INTO DIAGNOSTICS VALUES ( 'CMD20204','CMD1004','2025-02-03', 'Ultrasound ',
'Fetal heartbeat');

INSERT INTO DIAGNOSTICS VALUES ( 'CMD20205','CMD1005','2025-04-03',
'Echocardiogram ', 'Weak heart valve');

INSERT INTO DIAGNOSTICS VALUES ( 'CMD20206','CMD1006','2025-03-20', 'EEG ',
'Abnormal brain waves');

INSERT INTO DIAGNOSTICS VALUES ( 'CMD20207','CMD1007','2025-03-13', 'Urinalysis ',
'Nitrites: UTI');

INSERT INTO DIAGNOSTICS VALUES ( 'CMD20208','CMD1008', '2024-12-
03','Colonoscopy ','Ulcers');
```

```
INSERT INTO DIAGNOSTICS VALUES ( 'CMD20209','CMD1009','2024-11-28', 'Endoscopy ',  
'Gastritis' );
```

```
INSERT INTO DIAGNOSTICS VALUES ( 'CMD20210','CMD1010','2024-09-22', 'Stool Occult  
Blood ', 'Positive: GI bleeding' );
```

#APPOINTMENT

```
INSERT INTO APPOINTMENT VALUES (  
'CM103031','CM34240','SM34242','TCM10101','2025-07-11','2025-07-30','Chest pain','$1000');
```

```
INSERT INTO APPOINTMENT VALUES (  
'CM103032','CM34941','TO31242','TCM10102','2025-01-11','2025-04-20','Difficulty  
breathing','$5000');
```

```
INSERT INTO APPOINTMENT VALUES (  
'CM103033','CM34742','NG14092','TCM10103','2025-02-13','2025-04-17','Stroke  
symptoms','$800');
```

```
INSERT INTO APPOINTMENT VALUES (  
'CM103034','CM34012','EP10042','TCM10104','2025-01-31','2025-02-12','Severe abdominal  
pain','$900');
```

```
INSERT INTO APPOINTMENT VALUES (   
'CM103035','CM34200','LA19042','TCM10105','2025-01-19','2025-02-08','Bowel  
obstruction','$17000');
```

```
INSERT INTO APPOINTMENT VALUES (   
'CM103036','CM31142','TK15542','TCM10106','2025-02-23','2025-05-16','Uncontrolled  
vomiting','$17600');
```

```
INSERT INTO APPOINTMENT VALUES (   
'CM103037','CM34542','MR13442','TCM10107','2025-04-11','2025-07-11','Severe allergic  
reactions','$10500');
```

```
INSERT INTO APPOINTMENT VALUES (   
'CM103038','CM34842','SC10742','TCM10108','2025-07-11','2025-07-26','Asthma','$1200');
```

```
INSERT INTO APPOINTMENT VALUES (   
'CM103039','CM34942','TO31242','TCM10109','2025-05-13','2025-06-20','Numbness','$19000');
```

```
INSERT INTO APPOINTMENT VALUES (
'CM103040','CM34042','SM34242','TCM10110','2025-07-09','2025-07-17','Severe
migraines','$1050');
```

#ADMINISTRATOR

```
INSERT INTO STAFF VALUES ('NS20242','WAYNE OLIVERA', 'NAZIYA SHAIK','123
OLAIK ST,NY', 'ADMINISTRATOR','NSHAIK@citymd.com', '646-555-3281' );
```

```
INSERT INTO ADMINISTRATOR VALUES ( 'AD10701','NS20242','OFFICE CLERK' );
```

```
INSERT INTO STAFF VALUES ('JW20243','MIGUEL GUT', 'JEREMY WAYLAND','57
PATTERSON ST,NY', 'ADMINISTRATOR','JWAYLAND@citymd.com', '349-552-3081' );
```

```
INSERT INTO ADMINISTRATOR VALUES ( 'AD10702','JW20243','SYSTEM ADMIN' );
```

```
INSERT INTO STAFF VALUES ('AA20244','JAY ELLINGTON', 'ANTHONY ALAINZ','522
ASHLEY AVENUE,NY', 'ADMINISTRATOR','AALAINZ@citymd.com', '718-233-5671' );
```

```
INSERT INTO ADMINISTRATOR VALUES ( 'AD10703','AA20244','SYSTEM ADMIN' );
```

```
INSERT INTO STAFF VALUES ('TO20245','BUSAYO AFOLAYAN', 'TOPE OMIDIJI','13
AUCKLAND AVENUE,NY', 'ADMINISTRATOR','TOMIDIJI@citymd.com', '425-700-5355' );
```

```
INSERT INTO ADMINISTRATOR VALUES ( 'AD10704','TO20245','MANAGER' );
```

```
INSERT INTO STAFF VALUES ('AM20246','MAGGIE EMEFIELE', 'AARON MORALES','11
ELON AVENUE,NY', 'ADMINISTRATOR','AMORALES@citymd.com', '425-727-4002' );
```

```
INSERT INTO ADMINISTRATOR VALUES ( 'AD10705','AM20246','OFFICE CLERK' );
```

```
INSERT INTO STAFF VALUES ('SR20247','BRIAN SAXBERG', 'SUMANTH REDDAY','11
SATYA AVENUE,NY', 'ADMINISTRATOR','SREDDY@citymd.com', '405-727-4222' );
```

```
INSERT INTO ADMINISTRATOR VALUES ( 'AD10706','SR20247','OFFICE CLERK' );
```

TABLES AND RECORDS

PATIENT

desc patient

Field	Type	Null	Key	Default	Extra
PATIENT_ID	varchar(10)	NO	PRI	NULL	
FIRST_NAME	varchar(25)	YES		NULL	
LAST_NAME	varchar(25)	YES		NULL	
GENDER	varchar(10)	YES		NULL	
PHONE_NUMBER	varchar(15)	YES		NULL	
POLICY_NUMBER	varchar(30)	YES		NULL	
INSURANCE_PROVIDER	varchar(25)	YES		NULL	
DOB	date	YES		NULL	

Select * from Patient

PATIENT_ID	FIRST_NAME	LAST_NAME	GENDER	PHONE_NUMBER	POLICY_NUMBER	INSURANCE_PROVIDER	DOB
CM31142	SANDHYA	GOPISETTY	FEMALE	800-556-7111	UN169563	UNITEDHEALTHCARE	1993-03-21
CM34012	TOLA	SEUN	FEMALE	646-800-7111	AT166503	AETNA	1988-09-02
CM34042	CAESAR	ADOMAKO	MALE	425-556-7921	OS166563	OSCAR HEALTH	2000-04-10
CM34200	GBENGA	SEGUN	MALE	347-556-7111	AF106563	AFFINITY	1992-11-15
CM34240	JOHN	MENSAH	MALE	646-506-200	CG166563	CIGNA	1991-07-01
CM34542	ARMINDA	SINGH	MALE	817-556-7111	EB164063	EMBLEM	1987-10-15
CM34742	JOHN	TUNJI	MALE	646-123-7111	SEIU165563	1199SEIU	1981-02-03
CM34842	GOPAL	BOGANA	MALE	600-556-0511	HE168163	HEALTHFIRST	1981-01-13
CM34941	BOLAJI	MUYIWA	MALE	655-556-7111	BC126563	BLUECROSS	1990-12-24
CM34942	CHIKA	UZOKWULW	MALE	247-556-7111	ME067563	METROPLUS	1982-08-10
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

STAFF

Desc Staff

Result Grid Filter Rows: Search Export:

Field	Type	Null	Key	Default	Extra
STAFF_ID	varchar(25)	NO	PRI	NULL	
SUPERVISOR	varchar(25)	YES		NULL	
STAFF_NAME	varchar(25)	YES		NULL	
STAFF_ADDRESS	varchar(30)	YES		NULL	
STAFF_ROLE	varchar(30)	YES		NULL	
EMAIL_ADDRESS	varchar(20)	YES		NULL	
PHONE_NUMBER	varchar(15)	YES		NULL	

Select* from Staff

Result Grid Filter Rows: Search Edit: Export/Import:

STAFF_ID	SUPERVISOR	STAFF_NAME	STAFF_ADDRESS	STAFF_ROLE	EMAIL_ADDRESS	PHONE_NUMBER
AA20244	JAY ELLINGTON	ANTHONY ALAINZ	522 ASHLEY AVENUE,NY	ADMINISTRATOR	AALAINZ@citymd.com	718-233-5671
AM20246	MAGGIE EMEFIELE	AARON MORALES	11 ELON AVENUE,NY	ADMINISTRATOR	AMORALES@citymd.com	425-727-4002
EP10042	TOM JOLLY	ETHAN PEYTON	45 MICROSOFT WAY,NY	DOCTOR	EPEYTHON@citymd.com	547-556-7111
JW20243	MIGUEL GUT	JEREMY WAYLAND	57 PATTERSON ST,NY	ADMINISTRATOR	JWAYLAND@citymd.com	349-552-3081
LA19042	SCOTT GRAHAM	LOLA ASHLEY	869 PULSAKI AVE,NY	NURSE	LASHLEY@citymd.com	547-4007-111
MR13442	AMIT KHAN	MALANDA RUST	101 FOREST AVE, NY	NURSE	MRUST@citymd.com	500-420-7111
NG14092	ELON MUSK	NATHAN GREGORY	123 ONE WAY,REDMOND,NY	DOCTOR	NGREGORY@citymd.com	247-556-7111
NS20242	WAYNE OLIVERA	NAZIYA SHAIK	123 OLAIK ST,NY	ADMINISTRATOR	NSHAIK@citymd.com	646-555-3281
SC10742	MALA ANAND	SCOTT COTA	189 ALVIN ST,NY	NURSE	MANAND@citymd.com	526-400-7111
SM34242	WAYNE RONNEY	SUNDAY MUUYIWA	123 SWANSEA ST,NY	DOCTOR	BMUUYIWA@citymd.com	646-555-9681
SR20247	BRIAN SAXBERG	SUMANTH REDDAY	11 SATYA AVENUE,NY	ADMINISTRATOR	SREDDY@citymd.com	405-727-4222
TK15542	MANEESH BABLANI	TOLA KARI	456 ORLANDO ST, NY	NURSE	TKARI@citymd.com	718-400-7111
TO20245	BUSAYO AFOLAYAN	TOPE OMIDJI	13 AUCKLAND AVENUE,NY	ADMINISTRATOR	TOMIDJI@citymd.com	425-700-5355
TO31242	SATYA NADELLA	TUNJI OLAMUYIWA	466 JAMAICA AVE,NY	DOCTOR	TMUYIWA@citymd.com	347-556-7111
NULL	NULL	NULL	NULL	NULL	NULL	NULL

TREATMENT

Desc Treatment

Result Grid Filter Rows: Search Export:

Field	Type	Null	Key	Default	Extra
TREATMENT_ID	varchar(10)	NO	PRI	NULL	
TREATMENT_NAME	varchar(100)	YES		NULL	
DESCRIPTION	varchar(100)	YES		NULL	
COST	varchar(10)	YES		NULL	

Select* from Treatment

	TREATMENT_ID	TREATMENT_NAME	DESCRIPTION	COST	
	CMU10101	Immunotherapy	therapy for immuno diseases	\$10000	
	CMU10102	Blood transfusion	2 blood transfusion	\$12000	
	CMU10103	IV fluid administration	dehydration	\$2000	
	CMU10104	Pain management injection	headache and body pain	\$1000	
	CMU10105	Antibiotic therapy	infections through sex	\$7000	
	CMU10106	Steroid treatment	Kidney issues	\$50000	
	CMU10107	Chemotherapy infusion	Cancer of the lungs	\$70000	
	CMU10108	Anticoagulant therapy	Blood clot	\$100000	
	CMU10109	Ultrasound	Pregnancy	\$5000	
	CMU10110	Electrocardiogram	Chest Pain	\$17000	
	NULL	NULL	NULL	NULL	

VISIT

Desc Visit

	Field	Type	Null	Key	Default	Extra
	VISIT_ID	varchar(10)	NO	PRI	NULL	
	PATIENT_ID	varchar(10)	NO	MUL	NULL	
	STAFF_ID	varchar(10)	NO	MUL	NULL	
	VISIT_DATE	date	YES		NULL	
	TRIAGE_LEVEL	varchar(10)	YES		NULL	
	DIAGNOSIS	varchar(100)	YES		NULL	
	TREATMENT_D...	varchar(100)	YES		NULL	
	BILLING_CODE	varchar(10)	YES	MUL	NULL	

Select * from Visit

	VISIT_ID	PATIENT_ID	STAFF_ID	VISIT_DATE	TRIAGE_LEVEL	DIAGNOSIS	TREATMENT_DESCRIPTION	BILLING_CODE
	CMD1001	CM34240	TO31242	2025-01-07	URGENT	Pneumonia	Antibiotics azithromycin/ceftriaxone	CMD50010
	CMD1002	CM34941	SM34242	2025-02-09	NOT-URGENT	HEADACHE	ASPRIN	CMD50011
	CMD1003	CM34742	NG14092	2025-02-20	IMMEDIATE	BLEEDING INTERNAL	MRI SCAN	CMD50012
	CMD1004	CM34012	EP10042	2025-01-17	EMERGENT	BROKEN LEG	CAT SCAN	CMD50013
	CMD1005	CM34200	EP10042	2025-01-27	IMMEDIATE	INFECTION INTERNAL	Endoscopy with cauterization	CMD50014
	CMD1006	CM31142	NG14092	2025-01-14	IMMEDIATE	SEPSIS	IV fluids resuscitation	CMD50015
	CMD1007	CM34542	LA19042	2025-03-07	EMERGENT	Urinary Tract Infection	Phenazopyridine for pain	CMD50016
	CMD1008	CM34842	TK15542	2025-03-10	URGENT	Rotator Cuff Tear	Physical therapy	CMD50017
	CMD1009	CM34942	MR13442	2025-03-22	URGENT	Hip Fracture	hemiarthroplasty	CMD50018
	CMD1010	CM34042	SC10742	2025-03-27	IMMEDIATE	Acute Appendicitis	Appendectomy	CMD50019
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

BILLING

Desc Billing

Field	Type	Null	Key	Default	Extra
BILLING_CODE	varchar(10)	NO	PRI	NULL	
VISIT_ID	varchar(10)	NO	PRI	NULL	
INSURANCE_DETAILS	varchar(25)	YES		NULL	
AMOUNT	varchar(10)	YES		NULL	
PAYMENT_STATUS	varchar(25)	YES		NULL	
PAYMENT_DATE	date	YES		NULL	

Select* from Billing

BILLING_CODE	VISIT_ID	INSURANCE_DETAILS	AMOUNT	PAYMENT_STATUS	PAYMENT_DATE
CMD50010	CMD1001	CIGNA	\$2000	PAID	2024-03-30
CMD50011	CMD1002	BLUECROSS	\$5000	UNPAID	2099-12-31
CMD50012	CMD1003	1199SEIU	\$10000	OVERDUE	2025-03-10
CMD50013	CMD1004	AETNA	\$20000	UNPAID	2099-12-31
CMD50014	CMD1005	AFFINITY	\$2500	PENDING	2024-09-01
CMD50015	CMD1006	UNITEDHEALTHCARE	\$12000	PARTIALLY PAID	2025-02-28
CMD50016	CMD1007	EMBLEM	\$200	PAID	2025-02-14
CMD50017	CMD1008	HEALTHFIRST	\$4000	PAID	2025-03-31
CMD50018	CMD1009	METROPLUS	\$2000	FAILED	2099-12-31
CMD50019	CMD1010	OSCAR HEALTH	\$22000	UNPAID	2099-12-31
NULL	NULL	NULL	NULL	NULL	NULL

DIAGNOSTICS

Desc Diagnostics

Field	Type	Null	Key	Default	Extra
DIAGNOSTIC_ID	varchar(10)	NO	PRI	NULL	
VISIT_ID	varchar(10)	NO	PRI	NULL	
TEST_DATE	date	YES		NULL	
TEST_TYPE	varchar(100)	YES		NULL	
TEST_RESULT	varchar(100)	YES		NULL	

Select* from Diagnostics

DIAGNOSTIC_ID	VISIT_ID	TEST_DATE	TEST_TYPE	TEST_RESULT
CMD20201	CMD1001	2025-03-21	Basic Metabolic Panel Blood Test	High Glucose: Diabetes
CMD20202	CMD1002	2024-03-03	X-ray	Fracture visible
CMD20203	CMD1003	2025-01-10	MRI	Herniated disc
CMD20204	CMD1004	2025-02-03	Ultrasound	Fetal heartbeat
CMD20205	CMD1005	2025-04-03	Echocardiogram	Weak heart valve
CMD20206	CMD1006	2025-03-20	EEG	Abnormal brain waves
CMD20207	CMD1007	2025-03-13	Urinalysis	Nitrites: UTI
CMD20208	CMD1008	2024-12-03	Colonoscopy	Ulcers
CMD20209	CMD1009	2024-11-28	Endoscopy	Gastritis
CMD20210	CMD1010	2024-09-22	Stool Occult Blood	Positive: GI bleeding
NULL	NULL	NULL	NULL	NULL

APPOINTMENT

Desc Appointment

Field	Type	Null	Key	Default	Extra
APPOINTMENT_ID	varchar(10)	NO	PRI	NULL	
PATIENT_ID	varchar(10)	NO	MUL	NULL	
STAFF_ID	varchar(10)	NO	MUL	NULL	
TREATMENT_ID	varchar(10)	NO	MUL	NULL	
APPOINTMENT_DATE	date	YES		NULL	
SCHEDULE_DATE	date	YES		NULL	
REASON_FOR_VISIT	varchar(100)	YES		NULL	
COST	varchar(10)	YES		NULL	

Select * from Appointment

APPOINTMENT_ID	PATIENT_ID	STAFF_ID	TREATMENT_ID	APPOINTMENT_DATE	SCHEDULE_DATE	REASON_FOR_VISIT	COST
CM103031	CM34240	SM34242	TCM10101	2025-07-11	2025-07-30	Chest pain	\$1000
CM103032	CM34941	TO31242	TCM10102	2025-01-11	2025-04-20	Difficulty breathing	\$5000
CM103033	CM34742	NG14092	TCM10103	2025-02-13	2025-04-17	Stroke symptoms	\$800
CM103034	CM34012	EP10042	TCM10104	2025-01-31	2025-02-12	Severe abdominal pain	\$900
CM103035	CM34200	LA19042	TCM10105	2025-01-19	2025-02-08	Bowel obstruction	\$17000
CM103036	CM31142	TK15542	TCM10106	2025-02-23	2025-05-16	Uncontrolled vomiting	\$17600
CM103037	CM34542	MR13442	TCM10107	2025-04-11	2025-07-11	Severe allergic reactions	\$10500
CM103038	CM34842	SC10742	TCM10108	2025-07-11	2025-07-26	Asthma	\$1200
CM103039	CM34942	TO31242	TCM10109	2025-05-13	2025-06-20	Numbness	\$19000
CM103040	CM34042	SM34242	TCM10110	2025-07-09	2025-07-17	Severe migraines	\$1050
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

ADMINISTRATOR

Desc Administrator

Field	Type	Null	Key	Default	Extra
ADMIN_ID	varchar(10)	NO	MUL	NULL	
STAFF_ID	varchar(10)	NO	PRI	NULL	
ROLE	varchar(25)	YES		NULL	

Select * from Administrator

	ADMIN_ID	STAFF_ID	ROLE
	AD10703	AA20244	SYSTEM ADMIN
	AD10705	AM20246	OFFICE CLERK
	AD10702	JW20243	SYSTEM ADMIN
	AD10701	NS20242	OFFICE CLERK
	AD10706	SR20247	OFFICE CLERK
	AD10704	TO20245	MANAGER
	NONE	NONE	NONE

DOCTOR

Desc Doctor

Field	Type	Null	Key	Default	Extra
SPECIALIZATION	varchar(25)	YES		NULL	
STAFF_ID	varchar(10)	NO	PRI	NULL	

Select * from Doctor

SPECIALIZATION	STAFF_ID
FAMILY MEDICINE	EP10042
GENERAL MEDICINE	NG14092
CARDIOLOGY	SM34242
ER	TO31242
NONE	NONE

NURSE

Desc Nurse

Field	Type	Null	Key	Default	Extra
DEPARTMENT	varchar(25)	YES		NULL	
STAFF_ID	varchar(10)	NO	PRI	NULL	

Select * from Nurse

DEPARTMENT	STAFF_ID
TRIAGE	LA19042
TRIAGE	MR13442
PEDIATRIC	SC10742
PEDIATRIC	TK15542
NULL	NULL

QUERIES AND JOIN

- Get all patients born after 2000 with their contact info

SELECT

```

PATIENT_ID,
FIRST_NAME AS patient_first_name,
LAST_NAME AS patient_last_name,
GENDER,PHONE_NUMBER

```

FROM PATIENT

WHERE DOB < '2000-01-01'

ORDER BY LAST_NAME, FIRST_NAME;

Result Grid Filter Rows: Search Edit:

PATIENT_ID	patient_first_na...	patient_last_na...	GENDER	PHONE_NUMBER
CM34842	GOPAL	BOGANA	MALE	600-556-0511
CM31142	SANDHYA	GOPISETTY	FEMALE	800-556-7111
CM34240	JOHN	MENSAH	MALE	646-506-200
CM34941	BOLAJI	MUYIWA	MALE	655-556-7111
CM34200	GBENGA	SEGUN	MALE	347-556-7111
CM34012	TOLA	SEUN	FEMALE	646-800-7111
CM34542	ARMINDA	SINGH	MALE	817-556-7111
CM34742	JOHN	TUNJI	MALE	646-123-7111
CM34942	CHIKA	UZOKWULW	MALE	247-556-7111
NULL	NULL	NULL	NULL	NULL

2. List all appointments scheduled for JANUARY

select * from appointment;

SELECT

a.APPOINTMENT_ID,
 p.FIRST_NAME AS patient_first_name,
 s.STAFF_NAME AS doctor_name,
 a.APPOINTMENT_DATE

FROM APPOINTMENT a

JOIN PATIENT p ON a.PATIENT_ID = p.PATIENT_ID

JOIN STAFF s ON a.STAFF_ID = s.STAFF_ID

WHERE MONTH(a.APPOINTMENT_DATE) = 1

ORDER BY a.APPOINTMENT_DATE;

APPOINTMENT_ID	patient_first_na...	doctor_name	APPOINTMENT_DATE
CM103032	BOLAJI	TUNJI OLAMUYIWA	2025-01-11
CM103035	GBENGA	LOLA ASHLEY	2025-01-19
CM103034	TOLA	ETHAN PEYTON	2025-01-31

3. Count how many times each treatment was given

SELECT

```
t.TREATMENT_NAME,
COUNT(a.APPOINTMENT_ID) AS times_used
FROM TREATMENT t
LEFT JOIN APPOINTMENT a ON t.TREATMENT_ID =
a.TREATMENT_ID
GROUP BY t.TREATMENT_NAME
ORDER BY times_used DESC;
```

TREATMENT_NAME	times_used
Immunotherapy	0
Blood transfusion	0
IV fluid administration	0
Pain management injection	0
Antibiotic therapy	0
Steroid treatment	0
Chemotherapy infusion	0
Anticoagulant therapy	0
Ultrasound	0
Electrocardiogram	0

4. Show all unpaid bills with patient info

SELECT

b.BILLING_CODE,
p.FIRST_NAME,
p.LAST_NAME,
b.AMOUNT,
b.PAYMENT_STATUS

FROM BILLING b

JOIN VISIT v ON b.VISIT_ID = v.VISIT_ID

JOIN PATIENT p ON v.PATIENT_ID = p.PATIENT_ID

WHERE b.PAYMENT_STATUS != 'PAID';

BILLING_CODE	FIRST_NAME	LAST_NAME	AMOUNT	PAYMENT_STATUS
CMD50011	BOLAJI	MUYIWA	\$5000	UNPAID
CMD50012	JOHN	TUNJI	\$10000	OVERDUE
CMD50013	TOLA	SEUN	\$20000	UNPAID
CMD50014	GBENGA	SEGUN	\$2500	PENDING
CMD50015	SANDHYA	GOPISETTY	\$12000	PARTIALLY PAID
CMD50018	CHIKA	UZOKWULW	\$2000	FAILED
CMD50019	CAESAR	ADOMAKO	\$22000	UNPAID

5. List all doctors and their specialties

SELECT

```

s.STAFF_NAME AS doctor_name,
d.SPECIALIZATION
FROM DOCTOR d
JOIN STAFF s ON d.STAFF_ID = s.STAFF_ID
ORDER BY SPECIALIZATION;

```

doctor_name	SPECIALIZATION
SUNDAY MUUYIWA	CARDIOLOGY
TUNJI OLAMUYIWA	ER
ETHAN PEYTON	FAMILY MEDICINE
NATHAN GREGORY	GENERAL MEDICINE

6. Count doctors by specialization and show average patients per doctor

```

SELECT
d.SPECIALIZATION,
COUNT(s.STAFF_ID) AS number_of_doctors,
AVG(
(SELECT COUNT(*)
FROM APPOINTMENT a
WHERE a.STAFF_ID = s.STAFF_ID)
) AS avg_patients_per_doctor,

```

```

SUM(
    (SELECT COUNT(*)
     FROM VISIT v
     WHERE v.STAFF_ID = s.STAFF_ID)
) AS total_visits_by_specialty
FROM DOCTOR d
JOIN STAFF s ON d.STAFF_ID = s.STAFF_ID
GROUP BY d.SPECIALIZATION
ORDER BY number_of_doctors DESC;

```

Result Grid			
SPECIALIZATION	number_of_doctors	avg_patients_per_doctor	total_visits_by_specialty
FAMILY MEDICINE	1	1.0000	2
GENERAL MEDICINE	1	1.0000	2
CARDIOLOGY	1	2.0000	1
ER	1	2.0000	1

7. Count the number of doctors in each specialty

```

SELECT
d.SPECIALIZATION,
COUNT(s.STAFF_ID) AS number_of_doctors
FROM DOCTOR d
JOIN STAFF s ON d.STAFF_ID = s.STAFF_ID

```

```
GROUP BY d.SPECIALIZATION  
ORDER BY number_of_doctors DESC;
```

SPECIALIZATION	number_of_doctors
FAMILY MEDICINE	1
GENERAL MEDICINE	1
CARDIOLOGY	1
ER	1

8. Retrieve All Staff Members and Their Roles

```
SELECT STAFF_NAME, STAFF_ROLE, EMAIL_ADDRESS,  
PHONE_NUMBER  
FROM STAFF  
ORDER BY STAFF_ROLE;
```

STAFF_NAME	STAFF_ROLE	EMAIL_ADDRESS	PHONE_NUMBER
ANTHONY ALAINZ	ADMINISTRATOR	AALAINZ@citymd.com	718-233-5671
AARON MORALES	ADMINISTRATOR	AMORALES@citymd.com	425-727-4002
JEREMY WAYLAND	ADMINISTRATOR	JWAYLAND@citymd.com	349-552-3081
NAZIYA SHAIK	ADMINISTRATOR	NSHAIK@citymd.com	646-555-3281
SUMANTH REDDAY	ADMINISTRATOR	SREDDY@citymd.com	405-727-4222
TOPE OMIDIJI	ADMINISTRATOR	TOMIDIJI@citymd.com	425-700-5355
ETHAN PEYTON	DOCTOR	EPEYTHON@citymd.com	547-556-7111
NATHAN GREGORY	DOCTOR	NGREGORY@citymd.com	247-556-7111
SUNDAY MUUYIWA	DOCTOR	bmuyiwa@citymd.com	646-555-9681
TUNJI OLAMUYIWA	DOCTOR	TMUYIWA@citymd.com	347-556-7111
LOLA ASHLEY	NURSE	LASHLEY@citymd.com	547-4007-111
MALANDA RUST	NURSE	MRUST@citymd.com	500-420-7111
SCOTT COTA	NURSE	MANAND@citymd.com	526-400-7111
TOLA KARI	NURSE	TKARI@citymd.com	718-400-7111

9. Count Total Appointments Scheduled

```
SELECT COUNT(APPOINTMENT_ID) AS total_appointments
FROM APPOINTMENT;
```

Result Grid		Filter Rows:
	total_appointments	<input type="text"/>
	10	<input type="button" value="Search"/>

10. Retrieve Patient Details with Their Appointments

```
SELECT p.FIRST_NAME, p.LAST_NAME,
a.APPOINTMENT_DATE, a.REASON_FOR_VISIT
```

```

FROM PATIENT p
JOIN APPOINTMENT a ON p.PATIENT_ID = a.PATIENT_ID
ORDER BY a.APPOINTMENT_DATE DESC;

```

FIRST_NAME	LAST_NAME	APPOINTMENT_DATE	REASON_FOR_VISIT
JOHN	MENSAH	2025-07-11	Chest pain
GOPAL	BOGANA	2025-07-11	Asthma
CAESAR	ADOMAKO	2025-07-09	Severe migraines
CHIKA	UZOKWULW	2025-05-13	Numbness
ARMINDA	SINGH	2025-04-11	Severe allergic reactions
SANDHYA	GOPISETTY	2025-02-23	Uncontrolled vomiting
JOHN	TUNJI	2025-02-13	Stroke symptoms
TOLA	SEUN	2025-01-31	Severe abdominal pain
GBENGA	SEGUN	2025-01-19	Bowel obstruction
BOLAJI	MUYIWA	2025-01-11	Difficulty breathing

11. Find Patients Who Had Diagnostics Tests with Abnormal Results

```

SELECT
P.FIRST_NAME,
P.LAST_NAME,
D.TEST_TYPE,
D.TEST_RESULT
FROM PATIENT P
JOIN VISIT V ON P.PATIENT_ID = V.PATIENT_ID

```

```
JOIN DIAGNOSTICS D ON V.VISIT_ID = D.VISIT_ID  
WHERE D.TEST_RESULT LIKE '%Abnormal%'  
ORDER BY P.LAST_NAME;
```

Result Grid			
LAST_NAME	TEST_TYPE	TEST_RESULT	Search
SANDHYA	EEG	Abnormal brain waves	Export:

12. Count of Appointments per Doctor

```
SELECT S.STAFF_NAME,  
       COUNT(A.APPOINTMENT_ID) AS Appointment_Count  
FROM STAFF S  
JOIN DOCTOR D ON S.STAFF_ID = D.STAFF_ID  
JOIN APPOINTMENT A ON S.STAFF_ID = A.STAFF_ID  
GROUP BY S.STAFF_NAME  
ORDER BY Appointment_Count DESC;
```

Result Grid Filter Rows: Search

STAFF_NAME	Appointment_Count
SUNDAY MUUYIWA	2
TUNJI OLAMUYIWA	2
ETHAN PEYTON	1
NATHAN GREGORY	1

CIDM 6350 WRITTEN AND COMPLETED BY

MUUYIWA BOLAJI

1126843