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Учреждение образования

БЕЛОРУССКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ

ИНФОРМАТИКИ И РАДИОЭЛЕКТРОНИКИ

Факультет компьютерных систем и сетей

Кафедра электронных вычислительных машин

ОТЧЕТ

по лабораторной работе №3

на тему

Реализация SQL-запросов для создания схемы базы данных

Больнциа

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МИНСК 2024

1. **Цель работы**

В лабораторной работе выполняется реализация схемы базы данных по ранее построенной реляционной схеме данных (см. лабораторную работу № 2). Требуется сформировать SQL-запросы для создания таблиц базы данных и выполнить их в СУБД. Требуется заполнить таблицы данными с помощью оператора INSERT.

1. **Порядок выполнения работы**

1) Создать в СУБД новую схему данных для хранения пользовательских объектов (см. часть 2).

2) В этой новой схеме данных с помощью скрипта с запросами на языке DDL SQL реализовать таблицы, соответствующие реляционным отношениям схемы данных полученной в лабораторной работе No2, с помощью одного (желательно) оператора CREATE TABLE для каждой таблицы в следующем порядке:

- реализовать простую структуру таблиц, включающую только набор столбцов с добавлением описаний первичного ключа;

- дополнить описание таблицы реализацией ограничений для описания внешних ключей; для внешних ключей установить свойства контроля целостности данных (каскадное удаление и обновление), если это возможно в целевой СУБД;

- дополнить описание таблицы реализацией ограничений для описания бизнес-правил;

- дополнить описание таблицы реализацией комментариев для значимых элементов таблицы.

3) Заполнить с помощью SQL-скрипта с использованием оператора INSERT таблицы строками данных для проверки правильного выбора первичных ключей и работоспособности ссылок между таблицами:

- строками данных сначала заполнять мастер-таблицы (или таблицы, которые НЕ ссылаются на другие таблицы);

- в каждую таблицу добавить 30 строк осмысленных данных;

- если не удается добавить данные в таблицу по причине нарушения уникальности первичного ключа, то следует перепроверить описание этого первичного ключа и его смысл для реального мира;

‑ если не удается добавить данные в таблицу по причине нарушения ссылочной целостности, то следует убедиться, что целевые данные существуют, иначе перепроверить описание внешнего ключа.

4) Рассмотреть простые действия по изменению структуры таблицы (переименование столбца таблицы, добавление и удаление ограничений на столбец таблицы или всю таблицу) и реализовать их с помощью оператора ALTER TABLE.

5) Создать временную таблицу с помощью оператора CREATE TABLE и удалить ее с помощью оператора DROP TABLE.

6) Экспортировать результаты работы в SQL-скрипт (см. часть 2), сравнить полученный скрипт со скриптами, созданными на этапах 2 и 3.

1. **Выполнение работы**

Реляционная схема данных, построенная в лабораторной работе №2 приведена на рисунке 3.1.

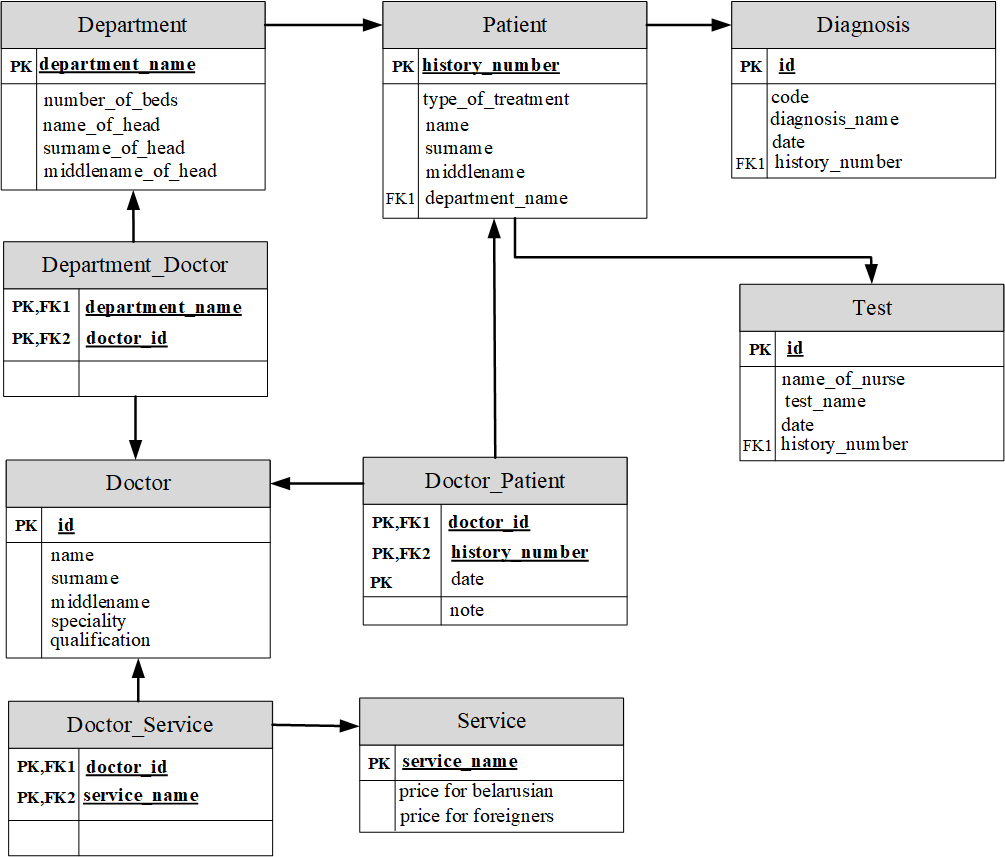


Рисунок 3.1 – Реляционная схема данных

База данных создаётся при помощи запроса CREATE DATABASE hospital.

Для создания таблиц использовался следующий запрос:

CREATE TABLE department (

department\_name text PRIMARY KEY,

number\_of\_beds integer,

surname\_of\_head text,

first\_name\_of\_head text,

middle\_name\_of\_head text

);

CREATE TABLE patient (

history\_number integer PRIMARY KEY,

type\_of\_treatment text,

surname text,

first\_name text,

middle\_name text,

department\_name text references department(department\_name)

);

CREATE TABLE diagnosis(

diagnosis\_id integer PRIMARY KEY,

code text,

diagnosis\_name text,

date\_ date,

history\_number integer references parient(history\_number)

);

CREATE TABLE doctor(

doctor\_id integer PRIMARY KEY

surname text,

first\_name text,

middle\_name text,

speciality text,

qualification text

);

CREATE TABLE service(

service\_name text PRIMARY KEY,

price\_for\_belarusian integer,

price\_for\_foreigners integer

);

CREATE TABLE test(

test\_id integer PRIMARY KEY,

name\_of\_nurse text,

test\_name text,

date\_ date,

history\_number integer references patient(history\_number)

);

CREATE TABLE department\_doctor(

department\_name text references department(department\_name),

doctor\_id integer references doctor(doctor\_id),

PRIMARY KEY(department\_name, doctor\_id)

);

CREATE TABLE doctor\_service(

service\_name text references service(service\_name),

doctor\_id integer references doctor(doctor\_id),

PRIMARY KEY(service\_name, doctor\_id)

);

CREATE TABLE doctor\_patient(

history\_number integer references patient(history\_number),

doctor\_id integer references doctor(doctor\_id),

date\_ date,

note text,

PRIMARY KEY(history\_number, doctor\_id, date\_)

);

Для добавления ограничений используются конструкция ADD CONSTRAINT в связке с оператором ALTER. Пример добавления условия, что ни одно из полей не нулевое, для таблицы service представлен ниже:

ALTER TABLE IF EXISTS service

ADD CONSTRAINT not\_null CHECK(

service\_name IS NOT NULL AND

price\_for\_belarusian IS NOT NULL AND

price\_for\_foreigners IS NOT NULL

);

Пример добавления комментария к таблице department\_doctor:

COMMENT ON TABLE department\_doctor

IS 'Intermediate table between tables department and doctor';

Пример установки свойства контроля целостности данных (каскадное удаление и обновление) в таблице test:

ALTER TABLE test

ADD CONSTRAINT del\_upd

FOREIGN KEY (history\_number)

REFERENCES patient (history\_number)

ON DELETE CASCADE

ON UPDATE CASCADE

Заполнение таблиц test, doctor, diagnosis, patient, department при помощи оператора INSERT INTO:

INSERT INTO department (department\_name, number\_of\_beds, surname\_of\_head, first\_name\_of\_head, middle\_name\_of\_head)

VALUES

('Cardiology', 50, 'Smith', 'John', 'Alexander'),

('Pediatrics', 30, 'Johnson', 'Emily', 'Rose'),

('Orthopedics', 25, 'Williams', 'James', 'Matthew'),

('Ophthalmology', 20, 'Brown', 'Olivia', 'Sophia'),

('Dermatology', 15, 'Jones', 'Emma', 'Grace'),

('Neurology', 40, 'Taylor', 'Daniel', 'Joseph'),

('Gastroenterology', 35, 'Wilson', 'Sophia', 'Elizabeth'),

('Urology', 15, 'Miller', 'Michael', 'David'),

('Otolaryngology', 20, 'Anderson', 'Ava', 'Grace'),

('Psychiatry', 30, 'Thomas', 'Ethan', 'Benjamin'),

('Radiology', 25, 'Martinez', 'Isabella', 'Lily'),

('Endocrinology', 20, 'Harris', 'Mia', 'Charlotte'),

('Rheumatology', 15, 'Clark', 'Abigail', 'Elizabeth'),

('Hematology', 30, 'Lewis', 'Elijah', 'Alexander'),

('Nephrology', 20, 'Lee', 'Amelia', 'Madison'),

('Gynecology', 25, 'Walker', 'Liam', 'Christopher'),

('Pulmonology', 30, 'Green', 'Harper', 'Grace'),

('Oncology', 25, 'Gonzalez', 'Evelyn', 'Victoria'),

('Neonatology', 20, 'Morris', 'Charlotte', 'Rose'),

('Allergy and Immunology', 15, 'Allen', 'Henry', 'William'),

('Infectious Diseases', 20, 'Young', 'Scarlett', 'Isabella'),

('Dentistry', 25, 'King', 'Zoe', 'Elizabeth'),

('Physical Therapy', 30, 'Wright', 'Carter', 'James'),

('Occupational Therapy', 25, 'Hall', 'Grace', 'Ann'),

('Speech-language Pathology', 20, 'Turner', 'Samuel', 'Jacob'),

('Emergency Medicine', 15, 'Baker', 'Lily', 'Grace'),

('General Surgery', 30, 'Hill', 'Lucas', 'Matthew'),

('Plastic Surgery', 25, 'Ward', 'Nora', 'Emily'),

('Anesthesiology', 20, 'Cook', 'Levi', 'Benjamin'),

('Pathology', 15, 'Price', 'Ella', 'Sophia');

INSERT INTO patient (history\_number, type\_of\_treatment, surname, first\_name, middle\_name, department\_name)

VALUES

(1001, 'Consultation', 'Smith', 'John', 'Alexander', 'Cardiology'),

(1002, 'Surgery', 'Johnson', 'Emily', 'Rose', 'Orthopedics'),

(1003, 'Check-up', 'Williams', 'James', 'Matthew', 'Pediatrics'),

(1004, 'Treatment', 'Brown', 'Olivia', 'Sophia', 'Dermatology'),

(1005, 'Consultation', 'Jones', 'Emma', 'Grace', 'Gastroenterology'),

(1006, 'Surgery', 'Taylor', 'Daniel', 'Joseph', 'Neurology'),

(1007, 'Check-up', 'Wilson', 'Sophia', 'Elizabeth', 'Gynecology'),

(1008, 'Treatment', 'Miller', 'Michael', 'David', 'Urology'),

(1009, 'Consultation', 'Anderson', 'Ava', 'Grace', 'Otolaryngology'),

(1010, 'Surgery', 'Thomas', 'Ethan', 'Benjamin', 'Radiology'),

(1011, 'Check-up', 'Martinez', 'Isabella', 'Lily', 'Endocrinology'),

(1012, 'Treatment', 'Harris', 'Mia', 'Charlotte', 'Rheumatology'),

(1013, 'Consultation', 'Clark', 'Abigail', 'Elizabeth', 'Hematology'),

(1014, 'Surgery', 'Lewis', 'Elijah', 'Alexander', 'Nephrology'),

(1015, 'Check-up', 'Lee', 'Amelia', 'Madison', 'Oncology'),

(1016, 'Treatment', 'Walker', 'Liam', 'Christopher', 'Neonatology'),

(1017, 'Consultation', 'Green', 'Harper', 'Grace', 'Allergy and Immunology'),

(1018, 'Surgery', 'Gonzalez', 'Evelyn', 'Victoria', 'Infectious Diseases'),

(1019, 'Check-up', 'Morris', 'Charlotte', 'Rose', 'Dentistry'),

(1020, 'Treatment', 'Allen', 'Henry', 'William', 'Physical Therapy'),

(1021, 'Consultation', 'Smith', 'Sophia', 'Grace', 'Cardiology'),

(1022, 'Surgery', 'Johnson', 'Liam', 'James', 'Orthopedics'),

(1023, 'Check-up', 'Williams', 'Ava', 'Elizabeth', 'Pediatrics'),

(1024, 'Treatment', 'Brown', 'Oliver', 'Matthew', 'Dermatology'),

(1025, 'Consultation', 'Jones', 'Mia', 'Grace', 'Gastroenterology'),

(1026, 'Surgery', 'Taylor', 'Noah', 'Joseph', 'Neurology'),

(1027, 'Check-up', 'Wilson', 'Olivia', 'Rose', 'Gynecology'),

(1028, 'Treatment', 'Miller', 'James', 'David', 'Urology'),

(1029, 'Consultation', 'Anderson', 'Emma', 'Grace', 'Otolaryngology'),

(1030, 'Surgery', 'Thomas', 'Liam', 'Benjamin', 'Radiology');

INSERT INTO diagnosis (diagnosis\_id, code, diagnosis\_name, date\_, history\_number)

VALUES

(1, 'A001', 'Common Cold', '2023-10-05', 1001),

(2, 'B352', 'Pneumonia', '2023-08-15', 1002),

(3, 'C526', 'Gastroenteritis', '2023-09-22', 1003),

(4, 'D723', 'Skin Infection', '2023-11-10', 1004),

(5, 'E905', 'Allergic Rhinitis', '2023-07-29', 1005),

(6, 'F201', 'Migraine', '2023-12-02', 1006),

(7, 'G431', 'Urinary Tract Infection', '2023-10-18', 1007),

(8, 'H821', 'Otitis Media', '2023-06-14', 1008),

(9, 'I509', 'Hypertension', '2023-09-01', 1009),

(10, 'J303', 'Bronchitis', '2023-11-26', 1010),

(11, 'A001', 'Common Cold', '2023-08-28', 1001),

(12, 'B352', 'Pneumonia', '2023-10-12', 1012),

(13, 'C526', 'Gastroenteritis', '2023-07-17', 1003),

(14, 'D723', 'Skin Infection', '2023-09-05', 1014),

(15, 'E905', 'Allergic Rhinitis', '2023-11-21', 1005),

(16, 'F201', 'Migraine', '2023-08-08', 1016),

(17, 'G431', 'Urinary Tract Infection', '2023-10-25', 1007),

(18, 'H821', 'Otitis Media', '2023-12-19', 1018),

(19, 'I509', 'Hypertension', '2023-09-15', 1009),

(20, 'J303', 'Bronchitis', '2023-06-30', 1020),

(21, 'A001', 'Common Cold', '2023-11-15', 1021),

(22, 'B352', 'Pneumonia', '2023-07-04', 1022),

(23, 'C526', 'Gastroenteritis', '2023-09-09', 1023),

(24, 'D723', 'Skin Infection', '2023-12-25', 1024),

(25, 'E905', 'Allergic Rhinitis', '2023-10-02', 1025),

(26, 'F201', 'Migraine', '2023-08-20', 1026),

(27, 'G431', 'Urinary Tract Infection', '2023-11-06', 1027),

(28, 'H821', 'Otitis Media', '2023-07-23', 1028),

(29, 'I509', 'Hypertension', '2023-09-29', 1029),

(30, 'J303', 'Bronchitis', '2023-06-07', 1030);

INSERT INTO doctor (doctor\_id, surname, first\_name, middle\_name, speciality, qualification)

VALUES

(1, 'Smith', 'John', 'Michael', 'Cardiology', 'First'),

(2, 'Johnson', 'Robert', 'David', 'Orthopedics', 'Second'),

(3, 'Williams', 'James', 'Thomas', 'Dermatology', 'Higher'),

(4, 'Jones', 'William', 'Christopher', 'Pediatrics', 'First'),

(5, 'Brown', 'David', 'Joseph', 'Ophthalmology', 'Second'),

(6, 'Davis', 'Charles', 'Daniel', 'Gastroenterology', 'Higher'),

(7, 'Miller', 'Daniel', 'Matthew', 'Neurology', 'First'),

(8, 'Wilson', 'Joseph', 'Anthony', 'Otolaryngology', 'Second'),

(9, 'Moore', 'Thomas', 'Andrew', 'Urology', 'Higher'),

(10, 'Taylor', 'Mark', 'Jason', 'Psychiatry', 'First'),

(11, 'Anderson', 'Michael', 'Timothy', 'Cardiology', 'Second'),

(12, 'Thomas', 'David', 'Richard', 'Orthopedics', 'Higher'),

(13, 'Jackson', 'Charles', 'Edward', 'Dermatology', 'First'),

(14, 'White', 'Robert', 'William', 'Pediatrics', 'Second'),

(15, 'Harris', 'Matthew', 'George', 'Ophthalmology', 'Higher'),

(16, 'Martin', 'Brian', 'Scott', 'Gastroenterology', 'First'),

(17, 'Thompson', 'Jason', 'Alexander', 'Neurology', 'Second'),

(18, 'Garcia', 'Kevin', 'Joseph', 'Otolaryngology', 'Higher'),

(19, 'Martinez', 'Edward', 'Ryan', 'Urology', 'First'),

(20, 'Robinson', 'William', 'Benjamin', 'Psychiatry', 'Second'),

(21, 'Clark', 'Joshua', 'Samuel', 'Cardiology', 'Higher'),

(22, 'Rodriguez', 'Daniel', 'Stephen', 'Orthopedics', 'First'),

(23, 'Lewis', 'Andrew', 'Peter', 'Dermatology', 'Second'),

(24, 'Lee', 'Christopher', 'Frank', 'Pediatrics', 'Higher'),

(25, 'Walker', 'Matthew', 'Raymond', 'Ophthalmology', 'First'),

(26, 'Hall', 'Joseph', 'Patrick', 'Gastroenterology', 'Second'),

(27, 'Allen', 'David', 'Jack', 'Neurology', 'Higher'),

(28, 'Young', 'Daniel', 'Henry', 'Otolaryngology', 'First'),

(29, 'Hernandez', 'Anthony', 'Ronald', 'Urology', 'Second'),

(30, 'King', 'Thomas', 'Edward', 'Psychiatry', 'Higher');

INSERT INTO test (test\_id, name\_of\_nurse, test\_name, date\_, history\_number)

VALUES

(1, 'Johnson', 'Blood Test', '2024-01-01', 1001),

(2, 'Smith', 'X-ray', '2024-01-02', 1002),

(3, 'Williams', 'Ultrasound', '2024-01-03', 1003),

(4, 'Brown', 'MRI', '2024-01-04', 1004),

(5, 'Jones', 'CT Scan', '2024-01-05', 1001),

(6, 'Davis', 'Blood Test', '2024-01-06', 1005),

(7, 'Miller', 'X-ray', '2024-01-07', 1017),

(8, 'Wilson', 'Ultrasound', '2024-01-08', 1017),

(9, 'Moore', 'MRI', '2024-01-09', 1018),

(10, 'Taylor', 'CT Scan', '2024-01-10', 1020),

(11, 'Johnson', 'Blood Test', '2024-01-11', 1008),

(12, 'Thomas', 'X-ray', '2024-01-12', 1009),

(13, 'Johnson', 'Ultrasound', '2024-01-13', 1002),

(14, 'White', 'MRI', '2024-01-14', 1010),

(15, 'Johnson', 'CT Scan', '2024-01-15', 1010),

(16, 'Martin', 'Blood Test', '2024-01-16', 1011),

(17, 'Johnson', 'X-ray', '2024-01-17', 1012),

(18, 'Garcia', 'Ultrasound', '2024-01-18', 1013),

(19, 'Johnson', 'MRI', '2024-01-19', 1014),

(20, 'Robinson', 'CT Scan', '2024-01-20', 1013),

(21, 'Clark', 'Blood Test', '2024-01-21', 1015),

(22, 'Rodriguez', 'X-ray', '2024-01-22', 1018),

(23, 'Lewis', 'Ultrasound', '2024-01-23', 1021),

(24, 'Lee', 'MRI', '2024-01-24', 1022),

(25, 'Walker', 'CT Scan', '2024-01-25', 1023),

(26, 'Hall', 'Blood Test', '2024-01-26', 1024),

(27, 'Johnson', 'X-ray', '2024-01-27', 1025),

(28, 'Young', 'Ultrasound', '2024-01-28', 1025),

(29, 'Hernandez', 'MRI', '2024-01-29', 1027),

(30, 'King', 'CT Scan', '2024-01-30', 1026);

Таблицы service, department\_doctor, doctor\_service и doctor\_patient были заполнены вручную.

Для заполнения вручную необходимо выбрать нужную таблицу, далее выбрать View/Edit Data, потом выбрать All Rows.

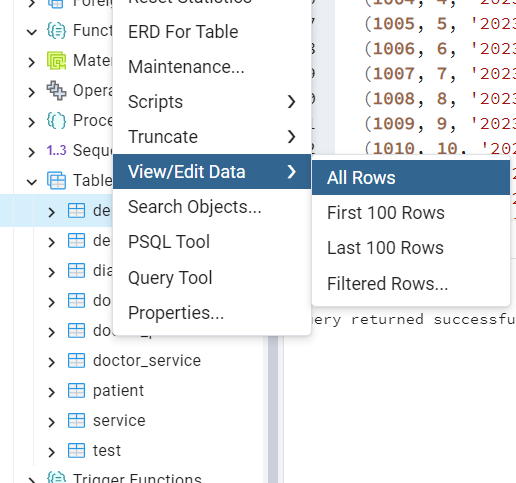
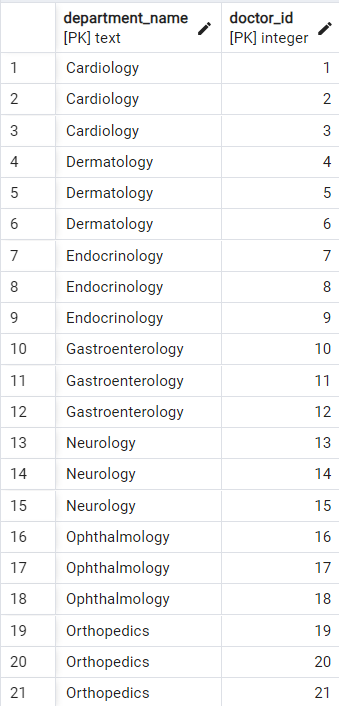


Рисунок 3.2 – Открытие окна для ручного ввода значений.





Рисунок 3.3 – Заполненная таблица department.



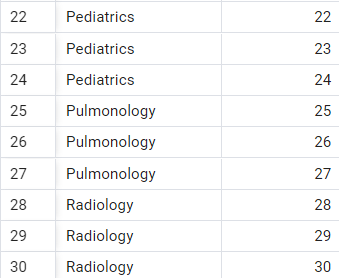


Рисунок 3.4 – Заполненная таблица department-doctor.

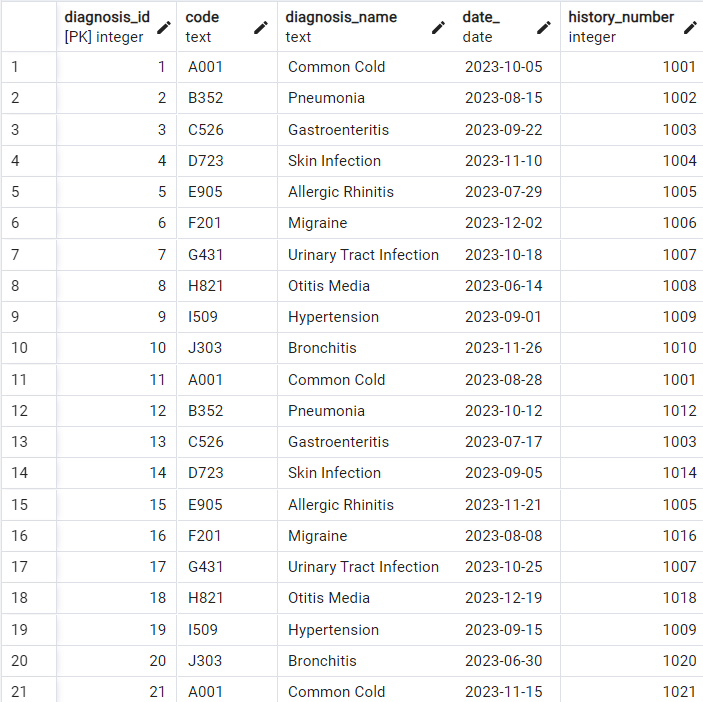
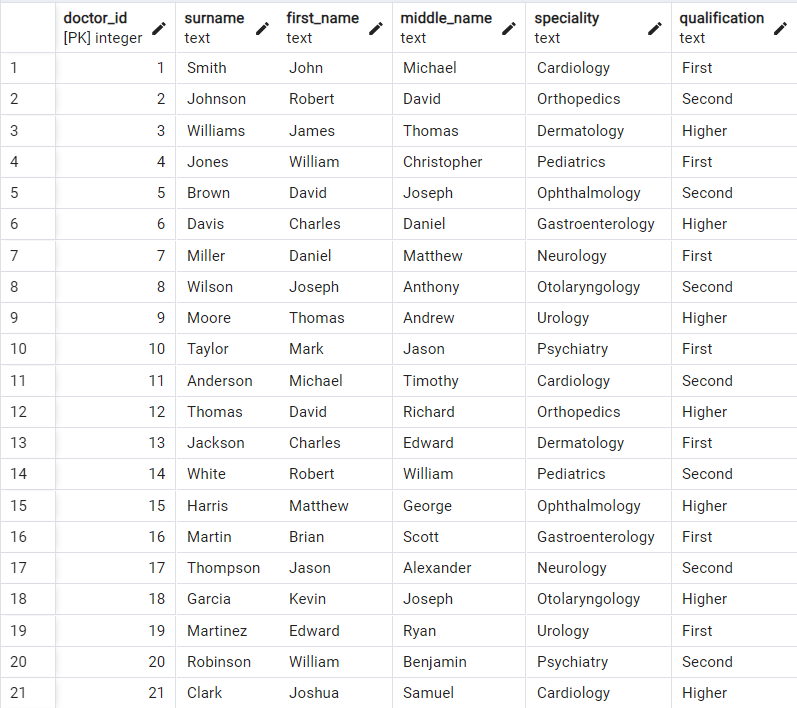




Рисунок 3.5 – Заполненная таблица diagnosis.



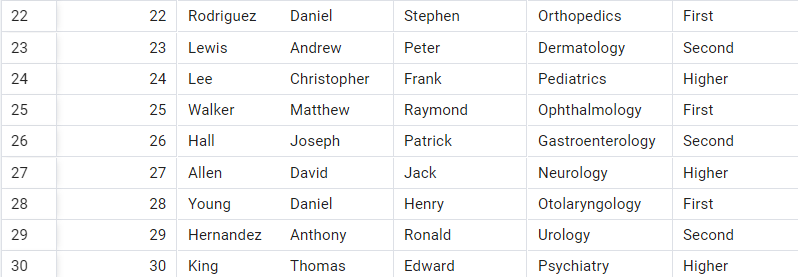
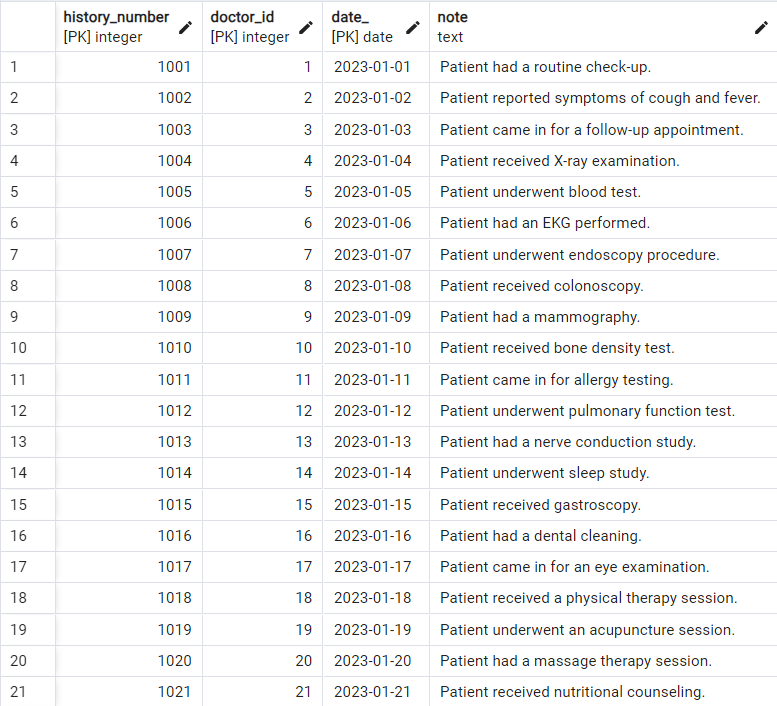


Рисунок 3.6 – Заполненная таблица doctor.



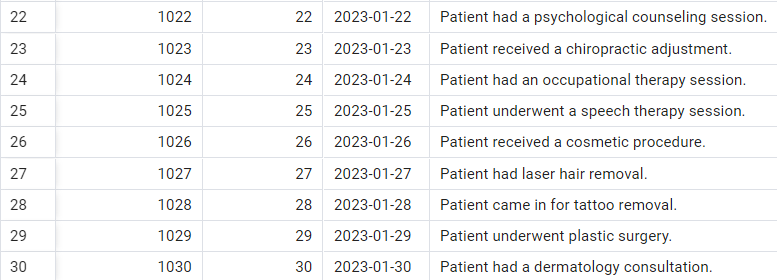


Рисунок 3.7 – Заполненная таблица doctor-patient.



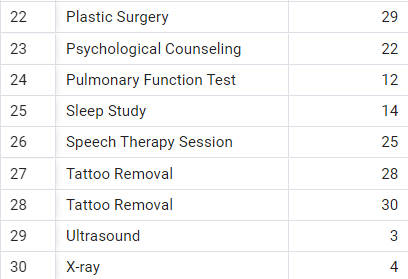


Рисунок 3.8 – Заполненная таблица doctor-service.



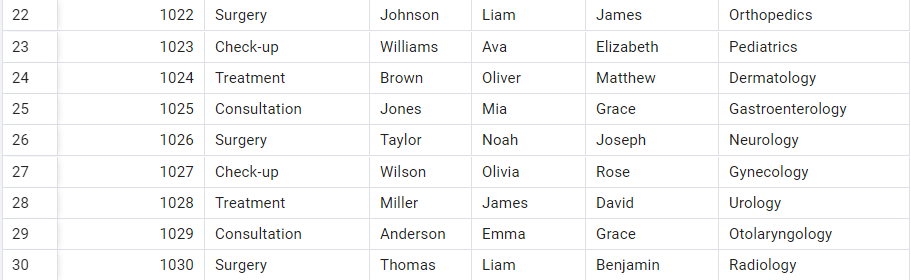


Рисунок 3.9 – Заполненная таблица pacient.



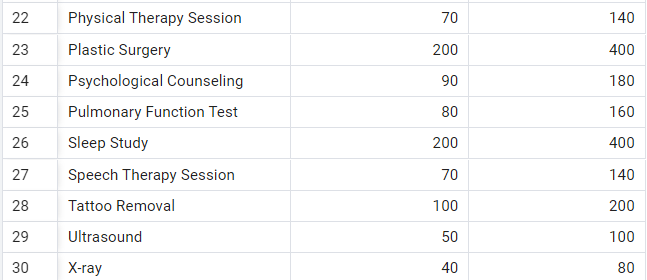


Рисунок 3.10 – Заполненная таблица service.

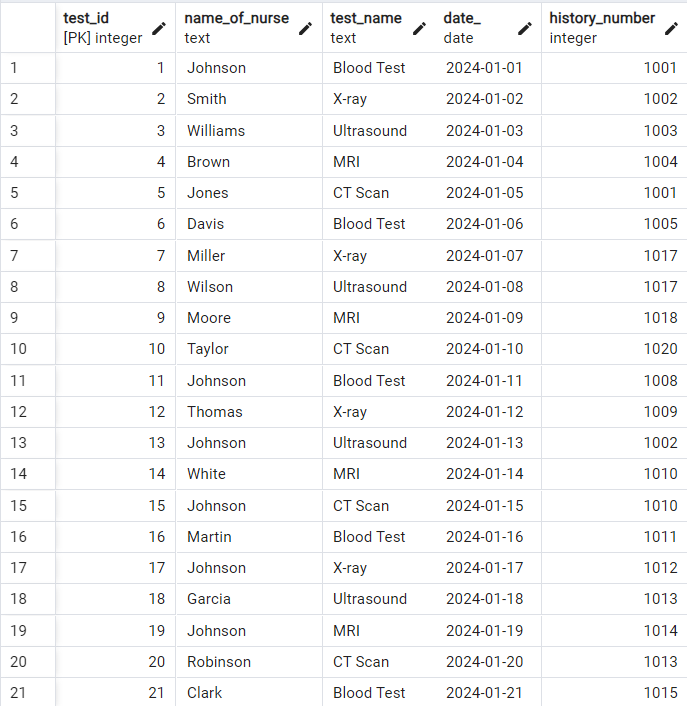




Рисунок 3.11 – Заполненная таблица test.

Также была создана реляционная диаграмма, приведенная на рисунке 3.12.

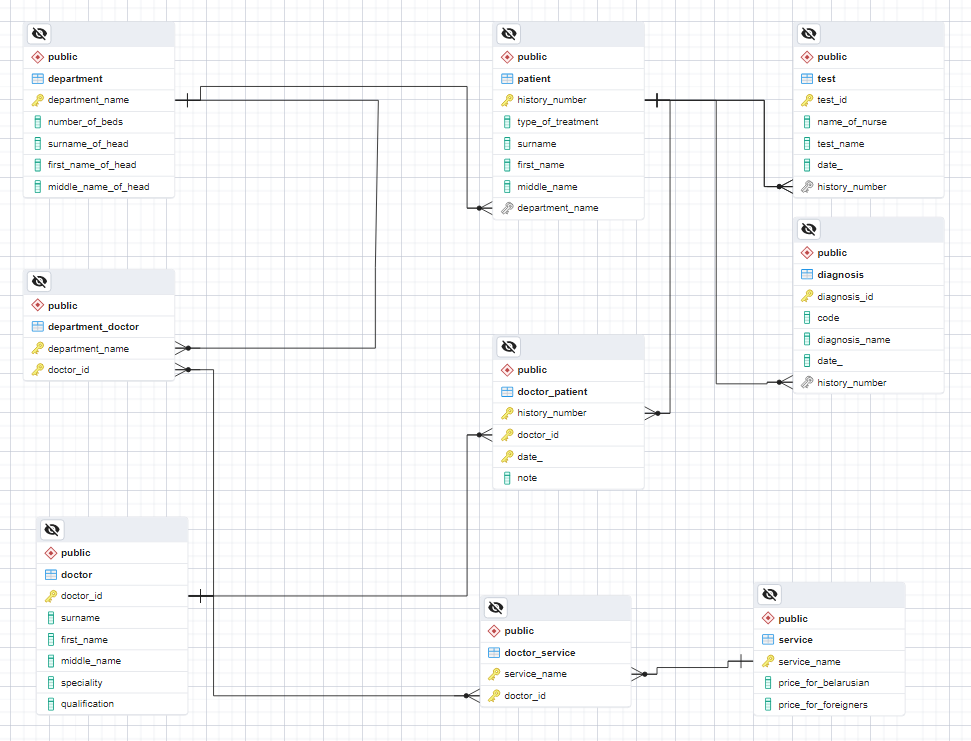


Рисунок 3.12 – Реляционная модель «Больница» в «PgAdmin 4»

После сравнения полученной диаграммы и схемы реляционной модели из отчета по лабораторной работе №2 различий в структуре этих диаграмм не было обнаружено.

Результатом выполнения шага 6 является нижепреведенный SQL-скрипт:

SET statement\_timeout = 0;

SET lock\_timeout = 0;

SET idle\_in\_transaction\_session\_timeout = 0;

SET client\_encoding = 'UTF8';

SET standard\_conforming\_strings = on;

SELECT pg\_catalog.set\_config('search\_path', '', false);

SET check\_function\_bodies = false;

SET xmloption = content;

SET client\_min\_messages = warning;

SET row\_security = off;

CREATE DATABASE hospital WITH TEMPLATE = template0 ENCODING = 'UTF8' LOCALE\_PROVIDER = libc LOCALE = 'en\_US.UTF-8';

ALTER DATABASE hospital OWNER TO postgres;

\connect hospital

SET statement\_timeout = 0;

SET lock\_timeout = 0;

SET idle\_in\_transaction\_session\_timeout = 0;

SET client\_encoding = 'UTF8';

SET standard\_conforming\_strings = on;

SELECT pg\_catalog.set\_config('search\_path', '', false);

SET check\_function\_bodies = false;

SET xmloption = content;

SET client\_min\_messages = warning;

SET row\_security = off;

SET default\_tablespace = '';

SET default\_table\_access\_method = heap;

CREATE TABLE public.department (

department\_name text NOT NULL,

number\_of\_beds integer,

surname\_of\_head text,

first\_name\_of\_head text,

middle\_name\_of\_head text

);

ALTER TABLE public.department OWNER TO postgres;

CREATE TABLE public.department\_doctor (

department\_name text NOT NULL,

doctor\_id integer NOT NULL

);

ALTER TABLE public.department\_doctor OWNER TO postgres;

COMMENT ON TABLE public.department\_doctor IS 'Intermediate table between tables department and doctor';

CREATE TABLE public.diagnosis (

diagnosis\_id integer NOT NULL,

code text,

diagnosis\_name text,

date\_ date,

history\_number integer

);

ALTER TABLE public.diagnosis OWNER TO postgres;

CREATE TABLE public.doctor (

doctor\_id integer NOT NULL,

surname text,

first\_name text,

middle\_name text,

speciality text,

qualification text

);

ALTER TABLE public.doctor OWNER TO postgres;

CREATE TABLE public.doctor\_patient (

history\_number integer NOT NULL,

doctor\_id integer NOT NULL,

date\_ date NOT NULL,

note text

);

ALTER TABLE public.doctor\_patient OWNER TO postgres;

CREATE TABLE public.doctor\_service (

service\_name text NOT NULL,

doctor\_id integer NOT NULL

);

ALTER TABLE public.doctor\_service OWNER TO postgres;

CREATE TABLE public.patient (

history\_number integer NOT NULL,

type\_of\_treatment text,

surname text,

first\_name text,

middle\_name text,

department\_name text

);

ALTER TABLE public.patient OWNER TO postgres;

CREATE TABLE public.service (

service\_name text NOT NULL,

price\_for\_belarusian integer,

price\_for\_foreigners integer,

CONSTRAINT not\_null CHECK (((service\_name IS NOT NULL) AND (price\_for\_belarusian IS NOT NULL) AND (price\_for\_foreigners IS NOT NULL)))

);

ALTER TABLE public.service OWNER TO postgres;

CREATE TABLE public.test (

test\_id integer NOT NULL,

name\_of\_nurse text,

test\_name text,

date\_ date,

history\_number integer

);

ALTER TABLE public.test OWNER TO postgres;

INSERT INTO public.department VALUES ('Cardiology', 50, 'Smith', 'John', 'Alexander') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Pediatrics', 30, 'Johnson', 'Emily', 'Rose') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Orthopedics', 25, 'Williams', 'James', 'Matthew') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Ophthalmology', 20, 'Brown', 'Olivia', 'Sophia') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Dermatology', 15, 'Jones', 'Emma', 'Grace') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Neurology', 40, 'Taylor', 'Daniel', 'Joseph') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Gastroenterology', 35, 'Wilson', 'Sophia', 'Elizabeth') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Urology', 15, 'Miller', 'Michael', 'David') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Otolaryngology', 20, 'Anderson', 'Ava', 'Grace') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Psychiatry', 30, 'Thomas', 'Ethan', 'Benjamin') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Radiology', 25, 'Martinez', 'Isabella', 'Lily') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Endocrinology', 20, 'Harris', 'Mia', 'Charlotte') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Rheumatology', 15, 'Clark', 'Abigail', 'Elizabeth') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Hematology', 30, 'Lewis', 'Elijah', 'Alexander') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Nephrology', 20, 'Lee', 'Amelia', 'Madison') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Gynecology', 25, 'Walker', 'Liam', 'Christopher') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Pulmonology', 30, 'Green', 'Harper', 'Grace') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Oncology', 25, 'Gonzalez', 'Evelyn', 'Victoria') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Neonatology', 20, 'Morris', 'Charlotte', 'Rose') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Allergy and Immunology', 15, 'Allen', 'Henry', 'William') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Infectious Diseases', 20, 'Young', 'Scarlett', 'Isabella') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Dentistry', 25, 'King', 'Zoe', 'Elizabeth') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Physical Therapy', 30, 'Wright', 'Carter', 'James') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Occupational Therapy', 25, 'Hall', 'Grace', 'Ann') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Speech-language Pathology', 20, 'Turner', 'Samuel', 'Jacob') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Emergency Medicine', 15, 'Baker', 'Lily', 'Grace') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('General Surgery', 30, 'Hill', 'Lucas', 'Matthew') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Plastic Surgery', 25, 'Ward', 'Nora', 'Emily') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Anesthesiology', 20, 'Cook', 'Levi', 'Benjamin') ON CONFLICT DO NOTHING;

INSERT INTO public.department VALUES ('Pathology', 15, 'Price', 'Ella', 'Sophia') ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Cardiology', 1) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Cardiology', 2) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Cardiology', 3) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Dermatology', 4) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Dermatology', 5) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Dermatology', 6) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Endocrinology', 7) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Endocrinology', 8) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Endocrinology', 9) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Gastroenterology', 10) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Gastroenterology', 11) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Gastroenterology', 12) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Neurology', 13) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Neurology', 14) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Neurology', 15) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Ophthalmology', 16) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Ophthalmology', 17) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Ophthalmology', 18) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Orthopedics', 19) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Orthopedics', 20) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Orthopedics', 21) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Pediatrics', 22) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Pediatrics', 23) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Pediatrics', 24) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Pulmonology', 25) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Pulmonology', 26) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Pulmonology', 27) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Radiology', 28) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Radiology', 29) ON CONFLICT DO NOTHING;

INSERT INTO public.department\_doctor VALUES ('Radiology', 30) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (1, 'A001', 'Common Cold', '2023-10-05', 1001) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (2, 'B352', 'Pneumonia', '2023-08-15', 1002) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (3, 'C526', 'Gastroenteritis', '2023-09-22', 1003) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (4, 'D723', 'Skin Infection', '2023-11-10', 1004) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (5, 'E905', 'Allergic Rhinitis', '2023-07-29', 1005) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (6, 'F201', 'Migraine', '2023-12-02', 1006) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (7, 'G431', 'Urinary Tract Infection', '2023-10-18', 1007) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (8, 'H821', 'Otitis Media', '2023-06-14', 1008) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (9, 'I509', 'Hypertension', '2023-09-01', 1009) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (10, 'J303', 'Bronchitis', '2023-11-26', 1010) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (11, 'A001', 'Common Cold', '2023-08-28', 1001) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (12, 'B352', 'Pneumonia', '2023-10-12', 1012) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (13, 'C526', 'Gastroenteritis', '2023-07-17', 1003) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (14, 'D723', 'Skin Infection', '2023-09-05', 1014) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (15, 'E905', 'Allergic Rhinitis', '2023-11-21', 1005) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (16, 'F201', 'Migraine', '2023-08-08', 1016) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (17, 'G431', 'Urinary Tract Infection', '2023-10-25', 1007) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (18, 'H821', 'Otitis Media', '2023-12-19', 1018) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (19, 'I509', 'Hypertension', '2023-09-15', 1009) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (20, 'J303', 'Bronchitis', '2023-06-30', 1020) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (21, 'A001', 'Common Cold', '2023-11-15', 1021) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (22, 'B352', 'Pneumonia', '2023-07-04', 1022) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (23, 'C526', 'Gastroenteritis', '2023-09-09', 1023) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (24, 'D723', 'Skin Infection', '2023-12-25', 1024) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (25, 'E905', 'Allergic Rhinitis', '2023-10-02', 1025) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (26, 'F201', 'Migraine', '2023-08-20', 1026) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (27, 'G431', 'Urinary Tract Infection', '2023-11-06', 1027) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (28, 'H821', 'Otitis Media', '2023-07-23', 1028) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (29, 'I509', 'Hypertension', '2023-09-29', 1029) ON CONFLICT DO NOTHING;

INSERT INTO public.diagnosis VALUES (30, 'J303', 'Bronchitis', '2023-06-07', 1030) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (1, 'Smith', 'John', 'Michael', 'Cardiology', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (2, 'Johnson', 'Robert', 'David', 'Orthopedics', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (3, 'Williams', 'James', 'Thomas', 'Dermatology', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (4, 'Jones', 'William', 'Christopher', 'Pediatrics', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (5, 'Brown', 'David', 'Joseph', 'Ophthalmology', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (6, 'Davis', 'Charles', 'Daniel', 'Gastroenterology', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (7, 'Miller', 'Daniel', 'Matthew', 'Neurology', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (8, 'Wilson', 'Joseph', 'Anthony', 'Otolaryngology', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (9, 'Moore', 'Thomas', 'Andrew', 'Urology', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (10, 'Taylor', 'Mark', 'Jason', 'Psychiatry', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (11, 'Anderson', 'Michael', 'Timothy', 'Cardiology', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (12, 'Thomas', 'David', 'Richard', 'Orthopedics', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (13, 'Jackson', 'Charles', 'Edward', 'Dermatology', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (14, 'White', 'Robert', 'William', 'Pediatrics', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (15, 'Harris', 'Matthew', 'George', 'Ophthalmology', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (16, 'Martin', 'Brian', 'Scott', 'Gastroenterology', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (17, 'Thompson', 'Jason', 'Alexander', 'Neurology', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (18, 'Garcia', 'Kevin', 'Joseph', 'Otolaryngology', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (19, 'Martinez', 'Edward', 'Ryan', 'Urology', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (20, 'Robinson', 'William', 'Benjamin', 'Psychiatry', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (21, 'Clark', 'Joshua', 'Samuel', 'Cardiology', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (22, 'Rodriguez', 'Daniel', 'Stephen', 'Orthopedics', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (23, 'Lewis', 'Andrew', 'Peter', 'Dermatology', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (24, 'Lee', 'Christopher', 'Frank', 'Pediatrics', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (25, 'Walker', 'Matthew', 'Raymond', 'Ophthalmology', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (26, 'Hall', 'Joseph', 'Patrick', 'Gastroenterology', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (27, 'Allen', 'David', 'Jack', 'Neurology', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (28, 'Young', 'Daniel', 'Henry', 'Otolaryngology', 'First') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (29, 'Hernandez', 'Anthony', 'Ronald', 'Urology', 'Second') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor VALUES (30, 'King', 'Thomas', 'Edward', 'Psychiatry', 'Higher') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1001, 1, '2023-01-01', 'Patient had a routine check-up.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1002, 2, '2023-01-02', 'Patient reported symptoms of cough and fever.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1003, 3, '2023-01-03', 'Patient came in for a follow-up appointment.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1004, 4, '2023-01-04', 'Patient received X-ray examination.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1005, 5, '2023-01-05', 'Patient underwent blood test.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1006, 6, '2023-01-06', 'Patient had an EKG performed.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1007, 7, '2023-01-07', 'Patient underwent endoscopy procedure.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1008, 8, '2023-01-08', 'Patient received colonoscopy.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1009, 9, '2023-01-09', 'Patient had a mammography.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1010, 10, '2023-01-10', 'Patient received bone density test.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1011, 11, '2023-01-11', 'Patient came in for allergy testing.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1012, 12, '2023-01-12', 'Patient underwent pulmonary function test.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1013, 13, '2023-01-13', 'Patient had a nerve conduction study.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1014, 14, '2023-01-14', 'Patient underwent sleep study.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1015, 15, '2023-01-15', 'Patient received gastroscopy.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1016, 16, '2023-01-16', 'Patient had a dental cleaning.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1017, 17, '2023-01-17', 'Patient came in for an eye examination.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1018, 18, '2023-01-18', 'Patient received a physical therapy session.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1019, 19, '2023-01-19', 'Patient underwent an acupuncture session.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1020, 20, '2023-01-20', 'Patient had a massage therapy session.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1021, 21, '2023-01-21', 'Patient received nutritional counseling.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1022, 22, '2023-01-22', 'Patient had a psychological counseling session.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1023, 23, '2023-01-23', 'Patient received a chiropractic adjustment.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1024, 24, '2023-01-24', 'Patient had an occupational therapy session.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1025, 25, '2023-01-25', 'Patient underwent a speech therapy session.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1026, 26, '2023-01-26', 'Patient received a cosmetic procedure.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1027, 27, '2023-01-27', 'Patient had laser hair removal.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1028, 28, '2023-01-28', 'Patient came in for tattoo removal.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1029, 29, '2023-01-29', 'Patient underwent plastic surgery.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_patient VALUES (1030, 30, '2023-01-30', 'Patient had a dermatology consultation.') ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('MRI', 1) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('CT Scan', 2) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Ultrasound', 3) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('X-ray', 4) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Blood Test', 5) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('EKG', 6) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Endoscopy', 7) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Colonoscopy', 8) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Mammography', 9) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Bone Density Test', 10) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Allergy Testing', 11) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Pulmonary Function Test', 12) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Nerve Conduction Study', 13) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Sleep Study', 14) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Gastroscopy', 15) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Dental Cleaning', 16) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Eye Examination', 17) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Physical Therapy Session', 18) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Acupuncture Session', 19) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Massage Therapy Session', 20) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Nutritional Counseling', 21) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Psychological Counseling', 22) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Chiropractic Adjustment', 23) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Occupational Therapy Session', 24) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Speech Therapy Session', 25) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Cosmetic Procedure', 26) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Laser Hair Removal', 27) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Tattoo Removal', 28) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Plastic Surgery', 29) ON CONFLICT DO NOTHING;

INSERT INTO public.doctor\_service VALUES ('Tattoo Removal', 30) ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1001, 'Consultation', 'Smith', 'John', 'Alexander', 'Cardiology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1002, 'Surgery', 'Johnson', 'Emily', 'Rose', 'Orthopedics') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1003, 'Check-up', 'Williams', 'James', 'Matthew', 'Pediatrics') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1004, 'Treatment', 'Brown', 'Olivia', 'Sophia', 'Dermatology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1005, 'Consultation', 'Jones', 'Emma', 'Grace', 'Gastroenterology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1006, 'Surgery', 'Taylor', 'Daniel', 'Joseph', 'Neurology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1007, 'Check-up', 'Wilson', 'Sophia', 'Elizabeth', 'Gynecology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1008, 'Treatment', 'Miller', 'Michael', 'David', 'Urology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1009, 'Consultation', 'Anderson', 'Ava', 'Grace', 'Otolaryngology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1010, 'Surgery', 'Thomas', 'Ethan', 'Benjamin', 'Radiology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1011, 'Check-up', 'Martinez', 'Isabella', 'Lily', 'Endocrinology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1012, 'Treatment', 'Harris', 'Mia', 'Charlotte', 'Rheumatology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1013, 'Consultation', 'Clark', 'Abigail', 'Elizabeth', 'Hematology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1014, 'Surgery', 'Lewis', 'Elijah', 'Alexander', 'Nephrology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1015, 'Check-up', 'Lee', 'Amelia', 'Madison', 'Oncology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1016, 'Treatment', 'Walker', 'Liam', 'Christopher', 'Neonatology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1017, 'Consultation', 'Green', 'Harper', 'Grace', 'Allergy and Immunology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1018, 'Surgery', 'Gonzalez', 'Evelyn', 'Victoria', 'Infectious Diseases') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1019, 'Check-up', 'Morris', 'Charlotte', 'Rose', 'Dentistry') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1020, 'Treatment', 'Allen', 'Henry', 'William', 'Physical Therapy') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1021, 'Consultation', 'Smith', 'Sophia', 'Grace', 'Cardiology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1022, 'Surgery', 'Johnson', 'Liam', 'James', 'Orthopedics') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1023, 'Check-up', 'Williams', 'Ava', 'Elizabeth', 'Pediatrics') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1024, 'Treatment', 'Brown', 'Oliver', 'Matthew', 'Dermatology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1025, 'Consultation', 'Jones', 'Mia', 'Grace', 'Gastroenterology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1026, 'Surgery', 'Taylor', 'Noah', 'Joseph', 'Neurology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1027, 'Check-up', 'Wilson', 'Olivia', 'Rose', 'Gynecology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1028, 'Treatment', 'Miller', 'James', 'David', 'Urology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1029, 'Consultation', 'Anderson', 'Emma', 'Grace', 'Otolaryngology') ON CONFLICT DO NOTHING;

INSERT INTO public.patient VALUES (1030, 'Surgery', 'Thomas', 'Liam', 'Benjamin', 'Radiology') ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('MRI', 100, 200) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('CT Scan', 80, 160) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Ultrasound', 50, 100) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('X-ray', 40, 80) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Blood Test', 20, 40) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('EKG', 30, 60) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Endoscopy', 150, 300) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Colonoscopy', 120, 240) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Mammography', 70, 140) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Bone Density Test', 60, 120) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Allergy Testing', 50, 100) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Pulmonary Function Test', 80, 160) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Nerve Conduction Study', 90, 180) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Sleep Study', 200, 400) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Gastroscopy', 100, 200) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Dental Cleaning', 40, 80) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Eye Examination', 30, 60) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Physical Therapy Session', 70, 140) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Acupuncture Session', 60, 120) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Massage Therapy Session', 80, 160) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Nutritional Counseling', 50, 100) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Psychological Counseling', 90, 180) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Chiropractic Adjustment', 100, 200) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Occupational Therapy Session', 80, 160) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Speech Therapy Session', 70, 140) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Cosmetic Procedure', 150, 300) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Laser Hair Removal', 120, 240) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Tattoo Removal', 100, 200) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Plastic Surgery', 200, 400) ON CONFLICT DO NOTHING;

INSERT INTO public.service VALUES ('Hypnosis session', 130, 300) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (1, 'Johnson', 'Blood Test', '2024-01-01', 1001) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (2, 'Smith', 'X-ray', '2024-01-02', 1002) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (3, 'Williams', 'Ultrasound', '2024-01-03', 1003) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (4, 'Brown', 'MRI', '2024-01-04', 1004) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (5, 'Jones', 'CT Scan', '2024-01-05', 1001) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (6, 'Davis', 'Blood Test', '2024-01-06', 1005) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (7, 'Miller', 'X-ray', '2024-01-07', 1017) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (8, 'Wilson', 'Ultrasound', '2024-01-08', 1017) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (9, 'Moore', 'MRI', '2024-01-09', 1018) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (10, 'Taylor', 'CT Scan', '2024-01-10', 1020) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (11, 'Johnson', 'Blood Test', '2024-01-11', 1008) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (12, 'Thomas', 'X-ray', '2024-01-12', 1009) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (13, 'Johnson', 'Ultrasound', '2024-01-13', 1002) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (14, 'White', 'MRI', '2024-01-14', 1010) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (15, 'Johnson', 'CT Scan', '2024-01-15', 1010) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (16, 'Martin', 'Blood Test', '2024-01-16', 1011) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (17, 'Johnson', 'X-ray', '2024-01-17', 1012) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (18, 'Garcia', 'Ultrasound', '2024-01-18', 1013) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (19, 'Johnson', 'MRI', '2024-01-19', 1014) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (20, 'Robinson', 'CT Scan', '2024-01-20', 1013) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (21, 'Clark', 'Blood Test', '2024-01-21', 1015) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (22, 'Rodriguez', 'X-ray', '2024-01-22', 1018) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (23, 'Lewis', 'Ultrasound', '2024-01-23', 1021) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (24, 'Lee', 'MRI', '2024-01-24', 1022) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (25, 'Walker', 'CT Scan', '2024-01-25', 1023) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (26, 'Hall', 'Blood Test', '2024-01-26', 1024) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (27, 'Johnson', 'X-ray', '2024-01-27', 1025) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (28, 'Young', 'Ultrasound', '2024-01-28', 1025) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (29, 'Hernandez', 'MRI', '2024-01-29', 1027) ON CONFLICT DO NOTHING;

INSERT INTO public.test VALUES (30, 'King', 'CT Scan', '2024-01-30', 1026) ON CONFLICT DO NOTHING;

ALTER TABLE ONLY public.department\_doctor

ADD CONSTRAINT department\_doctor\_pkey PRIMARY KEY (department\_name, doctor\_id);

ALTER TABLE ONLY public.department

ADD CONSTRAINT department\_pkey PRIMARY KEY (department\_name);

ALTER TABLE ONLY public.diagnosis

ADD CONSTRAINT diagnosis\_pkey PRIMARY KEY (diagnosis\_id);

ALTER TABLE ONLY public.doctor\_patient

ADD CONSTRAINT doctor\_patient\_pkey PRIMARY KEY (history\_number, doctor\_id, date\_);

ALTER TABLE ONLY public.doctor

ADD CONSTRAINT doctor\_pkey PRIMARY KEY (doctor\_id);

ALTER TABLE ONLY public.doctor\_service

ADD CONSTRAINT doctor\_service\_pkey PRIMARY KEY (service\_name, doctor\_id);

ALTER TABLE ONLY public.patient

ADD CONSTRAINT patient\_pkey PRIMARY KEY (history\_number);

ALTER TABLE ONLY public.service

ADD CONSTRAINT service\_pkey PRIMARY KEY (service\_name);

ALTER TABLE ONLY public.test

ADD CONSTRAINT test\_pkey PRIMARY KEY (test\_id);

ALTER TABLE ONLY public.test

ADD CONSTRAINT del\_upd FOREIGN KEY (history\_number) REFERENCES public.patient(history\_number) ON UPDATE CASCADE ON DELETE CASCADE;

ALTER TABLE ONLY public.department\_doctor

ADD CONSTRAINT department\_doctor\_department\_name\_fkey FOREIGN KEY (department\_name) REFERENCES public.department(department\_name);

ALTER TABLE ONLY public.department\_doctor

ADD CONSTRAINT department\_doctor\_doctor\_id\_fkey FOREIGN KEY (doctor\_id) REFERENCES public.doctor(doctor\_id);

ALTER TABLE ONLY public.diagnosis

ADD CONSTRAINT diagnosis\_history\_number\_fkey FOREIGN KEY (history\_number) REFERENCES public.patient(history\_number);

ALTER TABLE ONLY public.doctor\_patient

ADD CONSTRAINT doctor\_patient\_doctor\_id\_fkey FOREIGN KEY (doctor\_id) REFERENCES public.doctor(doctor\_id);

ALTER TABLE ONLY public.doctor\_patient

ADD CONSTRAINT doctor\_patient\_history\_number\_fkey FOREIGN KEY (history\_number) REFERENCES public.patient(history\_number);

ALTER TABLE ONLY public.doctor\_service

ADD CONSTRAINT doctor\_service\_doctor\_id\_fkey FOREIGN KEY (doctor\_id) REFERENCES public.doctor(doctor\_id);

ALTER TABLE ONLY public.doctor\_service

ADD CONSTRAINT doctor\_service\_service\_name\_fkey FOREIGN KEY (service\_name) REFERENCES public.service(service\_name);

ALTER TABLE ONLY public.patient

ADD CONSTRAINT patient\_department\_name\_fkey FOREIGN KEY (department\_name) REFERENCES public.department(department\_name);

ALTER TABLE ONLY public.test

ADD CONSTRAINT test\_history\_number\_fkey FOREIGN KEY (history\_number) REFERENCES public.patient(history\_number);

**4 Вывод**

В ходе лабораторной работы было выполнена реализация схемы базы данных по ранее построенной реляционной схеме данных, были сформированы SQL-запросы для создания таблиц базы данных и выполнены их в СУБД, также были заполнены эти таблицы.