

**Министерство образования и науки Российской Федерации
ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ
“САНКТ-ПЕТЕРБУРГСКИЙ НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ
УНИВЕРСИТЕТ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ,
МЕХАНИКИ И ОПТИКИ”**

ФАКУЛЬТЕТ СРЕДНЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ

**ОТЧЕТ
ПО ЛАБОРАТОРНОЙ РАБОТЕ № 4
«СОЗДАНИЕ БАЗЫ В POSTGRESQL»**

Специальность 09.02.03 «Программирование в компьютерных системах»

ПМ.02 Разработка и администрирование баз данных

МДК.02.02 Технология разработки и защиты баз данных

Преподаватель:

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«_____» _____ 2020г.

Оценка _____

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1 ХОД РАБОТЫ

1.1 ЦЕЛЬ РАБОТЫ

Овладеть практическими навыками создания базы данных в PostgreSQL.

1.2 ИНДИВИДУАЛЬНОЕ ЗАДАНИЕ

Вариант №10: создать программную систему, предназначенную для администрации лечебной клиники.

2 ВЫПОЛНЕНИЕ

2.1. ОПИСАНИЕ ПРЕДМЕТНОЙ ОБЛАСТИ ДЛЯ ВЫДЕЛЕНИЯ ФУНКЦИОНАЛЬНОЙ ЗАВИСИМОСТИ

Прием пациентов ведут несколько врачей различных специализаций. На каждого пациента клиники заводится медицинская карта, в которой отражается вся информация по личным данным больного и истории его заболеваний (диагнозы). При очередном посещении врача в карте отражается дата и время приема, диагноз, текущее состояние больного, рекомендации по лечению. Так как прием ведется только на коммерческой основе, после очередного посещения пациент должен оплатить медицинские услуги (каждый прием оплачивается отдельно). Расчет стоимости посещения определяется врачом согласно прейскуранту по клинике. Для ведения внутренней отчетности необходима следующая информация о врачах: фамилия, имя, отчество, специальность, образование, пол, дата рождения и дата начала и окончания работы в клинике, данные по трудовому договору. Для каждого врача составляется график работы с указанием рабочих и выходных дней. Прием пациентов врачи могут вести в разных кабинетах. Каждый кабинет имеет определенный режим работы, ответственного и внутренний телефон.

2.2. SQL КОД

```
--
-- PostgreSQL database dump
--

-- Dumped from database version 10.11
-- Dumped by pg_dump version 10.11

-- Started on 2020-10-28 02:48:08

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;

--
-- TOC entry 2843 (class 1262 OID 25011)
-- Name: Private_clinic; Type: DATABASE; Schema: -; Owner: postgres
--
```

```
CREATE DATABASE "Private_clinic" WITH TEMPLATE = template0 ENCODING =
'UTF8' LC_COLLATE = 'Russian_Russia.1251' LC_CTYPE =
'Russian_Russia.1251';
```

```
ALTER DATABASE "Private_clinic" OWNER TO postgres;
```

```
\connect "Private_clinic"
```

```
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;
```

```
--
-- TOC entry 2844 (class 0 OID 0)
-- Dependencies: 2843
-- Name: DATABASE "Private_clinic"; Type: COMMENT; Schema: -; Owner:
postgres
--
```

```
COMMENT ON DATABASE "Private_clinic" IS 'A database for a private
clinic.';
```

```
--
-- TOC entry 4 (class 2615 OID 25012)
-- Name: Clinic1; Type: SCHEMA; Schema: -; Owner: postgres
--
```

```
CREATE SCHEMA "Clinic1";
```

```
ALTER SCHEMA "Clinic1" OWNER TO postgres;
```

```
--
-- TOC entry 1 (class 3079 OID 12924)
-- Name: plpgsql; Type: EXTENSION; Schema: -; Owner:
--
```

```
CREATE EXTENSION IF NOT EXISTS plpgsql WITH SCHEMA pg_catalog;
```

```
--
-- TOC entry 2846 (class 0 OID 0)
-- Dependencies: 1
-- Name: EXTENSION plpgsql; Type: COMMENT; Schema: -; Owner:
--
```

```
COMMENT ON EXTENSION plpgsql IS 'PL/pgSQL procedural language';
```

```
SET default_tablespace = '';
```

```
SET default_with_oids = false;
```

```

--
-- TOC entry 201 (class 1259 OID 25108)
-- Name: appointment; Type: TABLE; Schema: Clinic1; Owner: postgres
--

CREATE TABLE "Clinic1".appointment (
    a_id integer NOT NULL,
    a_doctor integer NOT NULL,
    a_patient integer NOT NULL,
    a_cabinet integer NOT NULL,
    a_date date NOT NULL,
    a_payment integer NOT NULL,
    a_time_start time without time zone NOT NULL,
    a_time_end time without time zone NOT NULL,
    a_diagnosis text,
    a_recepy text
);

ALTER TABLE "Clinic1".appointment OWNER TO postgres;

--
-- TOC entry 2847 (class 0 OID 0)
-- Dependencies: 201
-- Name: TABLE appointment; Type: COMMENT; Schema: Clinic1; Owner:
postgres
--

COMMENT ON TABLE "Clinic1".appointment IS 'Table containing information
about every appointment, including the doctor, the patient, etc.';

--
-- TOC entry 199 (class 1259 OID 25029)
-- Name: cabinet; Type: TABLE; Schema: Clinic1; Owner: postgres
--

CREATE TABLE "Clinic1".cabinet (
    c_number integer NOT NULL,
    c_wt_start time without time zone NOT NULL,
    c_wt_end time without time zone NOT NULL,
    c_phone_num integer NOT NULL
);

ALTER TABLE "Clinic1".cabinet OWNER TO postgres;

--
-- TOC entry 2848 (class 0 OID 0)
-- Dependencies: 199
-- Name: TABLE cabinet; Type: COMMENT; Schema: Clinic1; Owner: postgres
--

COMMENT ON TABLE "Clinic1".cabinet IS 'Information about the cabinet:
number, working time and phone number.';

--
-- TOC entry 200 (class 1259 OID 25098)
-- Name: d_schedule; Type: TABLE; Schema: Clinic1; Owner: postgres
--

```

```

CREATE TABLE "Clinic1".d_schedule (
    mn_start time without time zone,
    mn_end time without time zone,
    tu_start time without time zone,
    tu_end time without time zone,
    wed_start time without time zone,
    wed_end time without time zone,
    th_start time without time zone,
    th_end time without time zone,
    fr_start time without time zone,
    fr_end time without time zone,
    sat_start time without time zone,
    sat_end time without time zone,
    sun_start time without time zone,
    sun_end time with time zone,
    doctor integer NOT NULL
);

ALTER TABLE "Clinic1".d_schedule OWNER TO postgres;

--
-- TOC entry 2849 (class 0 OID 0)
-- Dependencies: 200
-- Name: TABLE d_schedule; Type: COMMENT; Schema: Clinic1; Owner:
postgres
--

COMMENT ON TABLE "Clinic1".d_schedule IS 'Doctor''s schedule: long and
confusing.';

--
-- TOC entry 198 (class 1259 OID 25021)
-- Name: doctor; Type: TABLE; Schema: Clinic1; Owner: postgres
--

CREATE TABLE "Clinic1".doctor (
    d_id integer NOT NULL,
    d_full_name text NOT NULL,
    d_gender boolean NOT NULL,
    d_dob date NOT NULL,
    d_education text NOT NULL,
    d_profession text NOT NULL,
    d_phone_num integer NOT NULL,
    d_address text NOT NULL
);

ALTER TABLE "Clinic1".doctor OWNER TO postgres;

--
-- TOC entry 2850 (class 0 OID 0)
-- Dependencies: 198
-- Name: TABLE doctor; Type: COMMENT; Schema: Clinic1; Owner: postgres
--

COMMENT ON TABLE "Clinic1".doctor IS 'Information on doctor: id, name,
profession, etc.';

--

```

```

-- TOC entry 197 (class 1259 OID 25013)
-- Name: medical_card; Type: TABLE; Schema: Clinic1; Owner: postgres
--

CREATE TABLE "Clinic1".medical_card (
    mc_id integer NOT NULL,
    mc_full_name text NOT NULL,
    mc_gender boolean NOT NULL,
    mc_dob date NOT NULL,
    mc_address text NOT NULL,
    mc_phone_num integer NOT NULL
);

ALTER TABLE "Clinic1".medical_card OWNER TO postgres;

--
-- TOC entry 2851 (class 0 OID 0)
-- Dependencies: 197
-- Name: TABLE medical_card; Type: COMMENT; Schema: Clinic1; Owner:
postgres
--

COMMENT ON TABLE "Clinic1".medical_card IS 'Information about patient:
id, name, gender, etc.';

--
-- TOC entry 202 (class 1259 OID 25133)
-- Name: payment; Type: TABLE; Schema: Clinic1; Owner: postgres
--

CREATE TABLE "Clinic1".payment (
    p_id integer NOT NULL,
    p_sum integer NOT NULL,
    p_date_opened date NOT NULL,
    p_date_closed date
);

ALTER TABLE "Clinic1".payment OWNER TO postgres;

--
-- TOC entry 2852 (class 0 OID 0)
-- Dependencies: 202
-- Name: TABLE payment; Type: COMMENT; Schema: Clinic1; Owner: postgres
--

COMMENT ON TABLE "Clinic1".payment IS 'Information on payment: id, sum,
opened and closed.';

--
-- TOC entry 2836 (class 0 OID 25108)
-- Dependencies: 201
-- Data for Name: appointment; Type: TABLE DATA; Schema: Clinic1; Owner:
postgres
--

INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)

```

```

VALUES (2, 1, 5, 5, '2020-02-02', 2, '09:30:00', '11:30:00',
'Depression', 'sdshjtrol');
INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)
VALUES (3, 6, 2, 1, '2020-02-02', 3, '10:00:00', '11:00:00', NULL, NULL);
INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)
VALUES (6, 8, 3, 4, '2020-02-05', 6, '10:00:00', '11:00:00', 'acne',
'cream');
INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)
VALUES (5, 5, 8, 8, '2020-02-04', 5, '10:00:00', '11:00:00', 'anxiety',
'pills');
INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)
VALUES (1, 2, 1, 5, '2020-02-01', 1, '10:00:00', '11:00:00', 'chlamidia',
NULL);
INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)
VALUES (7, 7, 7, 7, '2020-02-05', 7, '12:00:00', '12:30:00', 'miossis',
'drops');
INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)
VALUES (8, 8, 3, 5, '2020-02-06', 8, '11:00:00', '13:00:00', 'vitiligo',
NULL);
INSERT INTO "Clinic1".appointment (a_id, a_doctor, a_patient, a_cabinet,
a_date, a_payment, a_time_start, a_time_end, a_diagnosis, a_recepy)
VALUES (4, 3, 3, 2, '2020-02-03', 4, '09:30:00', '11:30:00', 'miossis',
'glasses');

```

```

--
-- TOC entry 2834 (class 0 OID 25029)
-- Dependencies: 199
-- Data for Name: cabinet; Type: TABLE DATA; Schema: Clinic1; Owner:
postgres
--

```

```

INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (1, '10:30:00', '17:45:00', 1111111);
INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (2, '08:00:00', '20:45:00', 2222222);
INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (3, '09:15:00', '20:45:00', 3333333);
INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (4, '11:30:00', '18:45:00', 4444444);
INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (5, '09:15:00', '20:45:00', 5555555);
INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (6, '11:30:00', '18:45:00', 6666666);
INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (7, '09:15:00', '20:45:00', 7777777);
INSERT INTO "Clinic1".cabinet (c_number, c_wt_start, c_wt_end,
c_phone_num) VALUES (8, '11:30:00', '18:45:00', 8888888);

```

```

--
-- TOC entry 2835 (class 0 OID 25098)
-- Dependencies: 200
-- Data for Name: d_schedule; Type: TABLE DATA; Schema: Clinic1; Owner:
postgres
--

```



```

INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('08:00:00', '19:00:00',
NULL, NULL, '10:00:00', '19:00:00', NULL, NULL, NULL, NULL, '08:00:00',
'19:00:00', NULL, NULL, 1);
INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('11:00:00', '19:00:00',
'11:00:00', '19:00:00', '11:00:00', '19:00:00', '11:00:00', '19:00:00',
'11:00:00', '19:00:00', NULL, NULL, NULL, NULL, 2);
INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('11:00:00', '19:00:00',
'11:00:00', '19:00:00', '11:00:00', '19:00:00', '11:00:00', '19:00:00',
'11:00:00', '19:00:00', NULL, NULL, NULL, NULL, 3);
INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('11:00:00', '19:00:00',
'11:00:00', '19:00:00', '11:00:00', '19:00:00', '11:00:00', '19:00:00',
'11:00:00', '19:00:00', NULL, NULL, NULL, NULL, 4);
INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('11:00:00', '19:00:00',
'11:00:00', '19:00:00', '11:00:00', '19:00:00', '11:00:00', '19:00:00',
'11:00:00', '19:00:00', NULL, NULL, NULL, NULL, 5);
INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('11:00:00', '19:00:00',
'11:00:00', '19:00:00', '11:00:00', '19:00:00', '11:00:00', '19:00:00',
'11:00:00', '19:00:00', NULL, NULL, NULL, NULL, 6);
INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('11:00:00', '19:00:00',
'11:00:00', '19:00:00', '11:00:00', '19:00:00', '11:00:00', '19:00:00',
'11:00:00', '19:00:00', NULL, NULL, NULL, NULL, 7);
INSERT INTO "Clinic1".d_schedule (mn_start, mn_end, tu_start, tu_end,
wed_start, wed_end, th_start, th_end, fr_start, fr_end, sat_start,
sat_end, sun_start, sun_end, doctor) VALUES ('08:00:00', '19:00:00',
NULL, NULL, '10:00:00', '19:00:00', NULL, NULL, NULL, NULL, '08:00:00',
'19:00:00', NULL, NULL, 8);

```

```
--
```

```
-- TOC entry 2833 (class 0 OID 25021)
```

```
-- Dependencies: 198
```

```
-- Data for Name: doctor; Type: TABLE DATA; Schema: Clinic1; Owner:
postgres
```

```
--
```

```

INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (1, 'Doctor 1',
true, '1978-01-01', '8 years', 'psychologist', 1265522, 'Street 5 home 5
flat 5');
INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (2, 'Doctor 2',
false, '1983-03-03', '10 years', 'gynecologist', 1234244, 'Street 6 home
6 flat 6');
INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (3, 'Doctor 3',
false, '1989-04-01', '6 years', 'optometrist', 5623447, 'Street 7 home 7
flat 7');

```

```

INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (4, 'Doctor 4',
true, '1967-09-02', '12 years', 'endocrinologist', 1238899, 'Street 8
home 8 flat 8');
INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (5, 'Doctor 5',
true, '1977-01-01', '8 years', 'psychologist', 1265521, 'Street 5 home 5
flat 4');
INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (6, 'Doctor 6',
false, '1982-03-03', '10 years', 'gynecologist', 1234243, 'Street 6 home
6 flat 5');
INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (7, 'Doctor 7',
false, '1988-04-01', '6 years', 'optometrist', 5623446, 'Street 7 home 7
flat 6');
INSERT INTO "Clinic1".doctor (d_id, d_full_name, d_gender, d_dob,
d_education, d_profession, d_phone_num, d_address) VALUES (8, 'Doctor 8',
true, '1966-09-02', '12 years', 'endocrinologist', 1238898, 'Street 8
home 8 flat 7');

```

```

--
-- TOC entry 2832 (class 0 OID 25013)
-- Dependencies: 197
-- Data for Name: medical_card; Type: TABLE DATA; Schema: Clinic1; Owner:
postgres
--

```

```

INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (1, 'Patient 1', true, '1990-12-
20', 'Street 1 home 1 flat 1', 1532789);
INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (2, 'Patient 2', true, '1990-10-
20', 'Street 2 home 1 flat 1', 1532718);
INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (3, 'Patient 3', false, '1970-
01-01', 'Street 3 home 1 flat 1', 1532234);
INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (4, 'Patient 4', false, '2001-
02-20', 'Street 4 home 1 flat 1', 3445119);
INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (5, 'Patient 5', false, '1989-
12-20', 'Street 10 home 1 flat 1', 1532727);
INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (6, 'Patient 6', false, '1970-
04-13', 'Street 11 home 11 flat 1', 3482328);
INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (7, 'Patient 7', true, '1964-11-
10', 'Street 9 home 2 flat 1', 4321000);
INSERT INTO "Clinic1".medical_card (mc_id, mc_full_name, mc_gender,
mc_dob, mc_address, mc_phone_num) VALUES (8, 'Patient 8', false, '1994-
09-05', 'Street 13 home 1 flat 1', 3432899);

```

```

--
-- TOC entry 2837 (class 0 OID 25133)
-- Dependencies: 202
-- Data for Name: payment; Type: TABLE DATA; Schema: Clinic1; Owner:
postgres
--

```

```

INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (1, 1000, '2020-02-01', '2020-02-01');
INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (2, 3000, '2020-02-02', '2020-02-05');
INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (3, 500, '2020-02-02', '2020-02-02');
INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (4, 1000, '2020-02-03', '2020-02-05');
INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (6, 600, '2020-02-05', '2020-02-12');
INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (7, 3000, '2020-02-05', '2020-03-01');
INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (5, 3000, '2020-02-04', '2020-02-15');
INSERT INTO "Clinic1".payment (p_id, p_sum, p_date_opened, p_date_closed)
VALUES (8, 1000, '2020-02-06', NULL);

```

```

--
-- TOC entry 2701 (class 2606 OID 25117)
-- Name: appointment a_payment; Type: CONSTRAINT; Schema: Clinic1; Owner:
postgres
--

```

```

ALTER TABLE ONLY "Clinic1".appointment
    ADD CONSTRAINT a_payment UNIQUE (a_payment);

```

```

--
-- TOC entry 2703 (class 2606 OID 25115)
-- Name: appointment appointment_pkey; Type: CONSTRAINT; Schema: Clinic1;
Owner: postgres
--

```

```

ALTER TABLE ONLY "Clinic1".appointment
    ADD CONSTRAINT appointment_pkey PRIMARY KEY (a_id);

```

```

--
-- TOC entry 2697 (class 2606 OID 25033)
-- Name: cabinet cabinet_pkey; Type: CONSTRAINT; Schema: Clinic1; Owner:
postgres
--

```

```

ALTER TABLE ONLY "Clinic1".cabinet
    ADD CONSTRAINT cabinet_pkey PRIMARY KEY (c_number);

```

```

--
-- TOC entry 2699 (class 2606 OID 25102)
-- Name: d_schedule d_schedule_pkey; Type: CONSTRAINT; Schema: Clinic1;
Owner: postgres
--

```

```

ALTER TABLE ONLY "Clinic1".d_schedule
    ADD CONSTRAINT d_schedule_pkey PRIMARY KEY (doctor);

```

```

--
-- TOC entry 2695 (class 2606 OID 25028)
-- Name: doctor doctor_pkey; Type: CONSTRAINT; Schema: Clinic1; Owner:
postgres

```

--

```
ALTER TABLE ONLY "Clinic1".doctor
    ADD CONSTRAINT doctor_pkey PRIMARY KEY (d_id);
```

--

```
-- TOC entry 2693 (class 2606 OID 25020)
-- Name: medical_card patient_pkey; Type: CONSTRAINT; Schema: Clinic1;
Owner: postgres
--
```

```
ALTER TABLE ONLY "Clinic1".medical_card
    ADD CONSTRAINT patient_pkey PRIMARY KEY (mc_id);
```

--

```
-- TOC entry 2705 (class 2606 OID 25137)
-- Name: payment payment_pkey; Type: CONSTRAINT; Schema: Clinic1; Owner:
postgres
--
```

```
ALTER TABLE ONLY "Clinic1".payment
    ADD CONSTRAINT payment_pkey PRIMARY KEY (p_id);
```

--

```
-- TOC entry 2709 (class 2606 OID 25128)
-- Name: appointment a_cabinte_fkey; Type: FK CONSTRAINT; Schema:
Clinic1; Owner: postgres
--
```

```
ALTER TABLE ONLY "Clinic1".appointment
    ADD CONSTRAINT a_cabinte_fkey FOREIGN KEY (a_cabinet) REFERENCES
"Clinic1".cabinet(c_number);
```

--

```
-- TOC entry 2708 (class 2606 OID 25123)
-- Name: appointment a_doctor_fkey; Type: FK CONSTRAINT; Schema: Clinic1;
Owner: postgres
--
```

```
ALTER TABLE ONLY "Clinic1".appointment
    ADD CONSTRAINT a_doctor_fkey FOREIGN KEY (a_doctor) REFERENCES
"Clinic1".doctor(d_id);
```

--

```
-- TOC entry 2707 (class 2606 OID 25118)
-- Name: appointment a_patient_fkey; Type: FK CONSTRAINT; Schema:
Clinic1; Owner: postgres
--
```

```
ALTER TABLE ONLY "Clinic1".appointment
    ADD CONSTRAINT a_patient_fkey FOREIGN KEY (a_patient) REFERENCES
"Clinic1".medical_card(mc_id);
```

--

```
-- TOC entry 2706 (class 2606 OID 25103)
```

```
-- Name: d_schedule doctor_fkey; Type: FK CONSTRAINT; Schema: Clinic1;
Owner: postgres
--

ALTER TABLE ONLY "Clinic1".d_schedule
    ADD CONSTRAINT doctor_fkey FOREIGN KEY (doctor) REFERENCES
"Clinic1".doctor(d_id) NOT VALID;

--
-- TOC entry 2710 (class 2606 OID 25138)
-- Name: payment p_id_fkey; Type: FK CONSTRAINT; Schema: Clinic1; Owner:
postgres
--

ALTER TABLE ONLY "Clinic1".payment
    ADD CONSTRAINT p_id_fkey FOREIGN KEY (p_id) REFERENCES
"Clinic1".appointment(a_payment);

-- Completed on 2020-10-28 02:48:08

--
-- PostgreSQL database dump complete
--
```

3 ВЫВОД

Вывод: в ходе выполнения лабораторной работы №4 было получены практические навыки создания таблиц базы данных PostgreSQL 12, заполнения их рабочими данными, резервного копирования и восстановления баз данных.