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высшего образования
**«НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ
ИТМО»**

Отчет

по лабораторной работе **Создание таблиц базы данных PostgreSQL.**
Заполнение таблиц рабочими данными

по дисциплине **«Базы данных»**

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Цель работы

Овладеть практическими навыками создания таблиц базы данных PostgreSQL 1X, заполнения их рабочими данными, резервного копирования и восстановления БД.

Практическое задание

1. Создать базу данных с использованием pgAdmin 4 (согласно индивидуальному заданию).
2. Создать схему в составе базы данных.
3. Создать таблицы базы данных.
4. Установить ограничения на данные: *Primary Key, Unique, Check, Foreign Key*.
5. Заполнить таблицы БД рабочими данными.
6. Создать резервную копию БД.

Указание:

Создать две резервные копии:

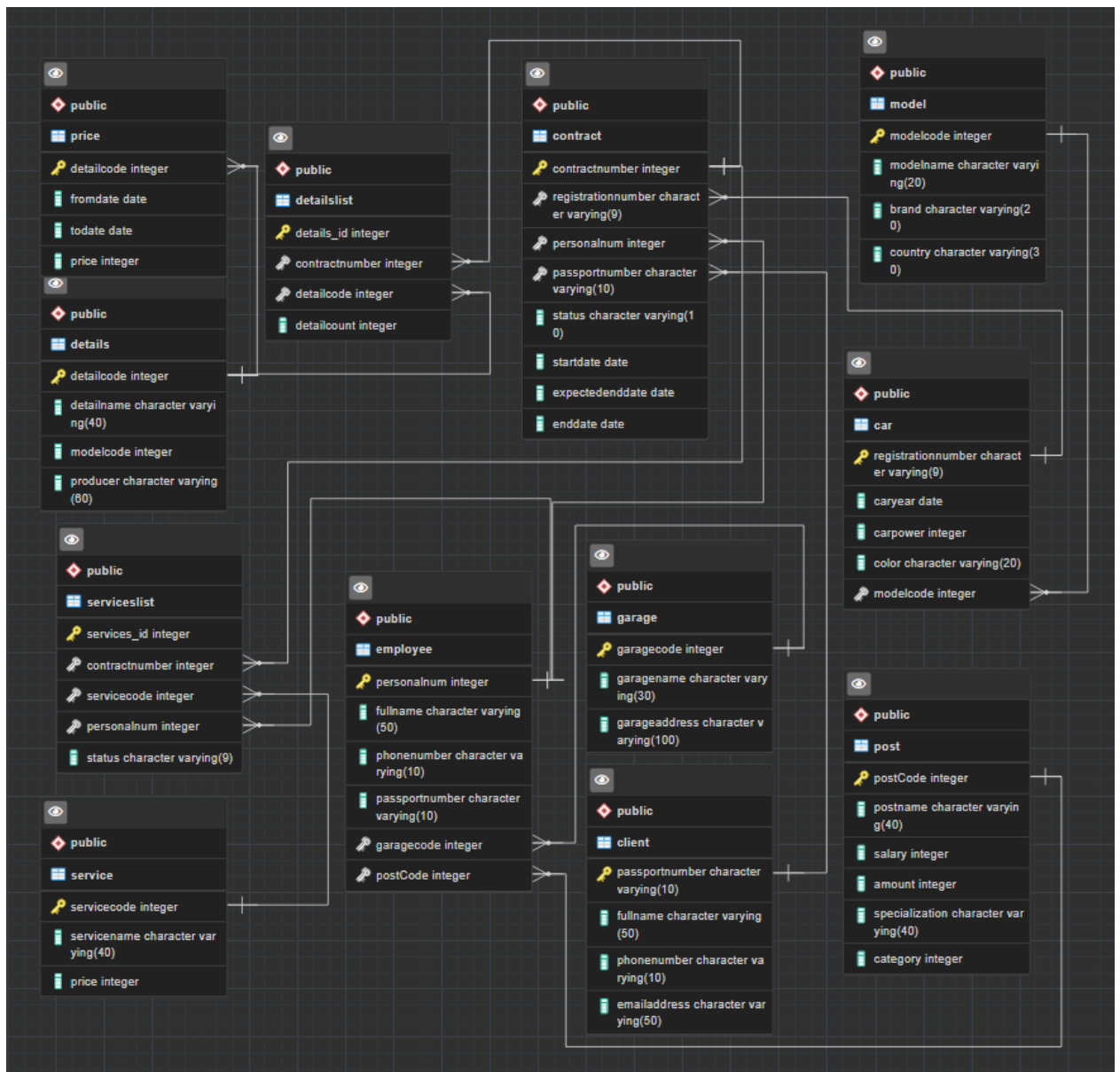
- с расширением *CUSTOM* для восстановления БД;
- с расширением *PLAIN* для листинга (в отчете);
- при создании резервных копий БД настроить параметры *Dump options* для *Type of objects* и *Queries* .

7. Восстановить БД.

Выполнение

База Данных: Garage

ER схема базы данных, сгенерированная при помощи pgAdmin:



Создание дб:

Create Database Garage;

dump бд:

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

-- Dumped from database version 14.5
-- Dumped by pg_dump version 14.5

-- Started on 2023-03-24 16:44:47

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;

--
-- TOC entry 220 (class 1259 OID 19104)
-- Name: car; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.car (
    registrationnumber character varying(9) NOT NULL,
    caryear date NOT NULL,
    carpower integer NOT NULL,
    color character varying(20) NOT NULL,
    modelcode integer NOT NULL,
    CONSTRAINT car_carpower_check CHECK ((carpower > 0)),
```

```

CONSTRAINT car_caryear_check CHECK ((caryear <= CURRENT_DATE)),
CONSTRAINT car_color_check CHECK (((color)::text ~ '[a-яA-Я]+'::text)),
CONSTRAINT car_registrationnumber_check CHECK (((registrationnumber)::text ~
'^[0-9A-Z]+'::text))
);

```

```

ALTER TABLE public.car OWNER TO postgres;

```

```

--
-- TOC entry 211 (class 1259 OID 19064)
-- Name: client; Type: TABLE; Schema: public; Owner: postgres
--

```

```

CREATE TABLE public.client (
    passportnumber character varying(10) NOT NULL,
    fullname character varying(50) NOT NULL,
    phonenumber character varying(10) NOT NULL,
    emailaddress character varying(50) NOT NULL,
    CONSTRAINT client_fullname_check CHECK (((fullname)::text ~ '[a-яA-Я]+'::text)),
    CONSTRAINT client_passportnumber_check CHECK (((passportnumber)::text ~
'^[0-9a-zA-Z]+'::text)),
    CONSTRAINT client_phonenumber_check CHECK (((phonenumber)::text ~ '[0-9]+'::text))
);

```

```

ALTER TABLE public.client OWNER TO postgres;

```

```

--
-- TOC entry 225 (class 1259 OID 19141)
-- Name: contract; Type: TABLE; Schema: public; Owner: postgres
--

```

```

CREATE TABLE public.contract (
    contractnumber integer NOT NULL,
    registrationnumber character varying(9) NOT NULL,
    personalnum integer NOT NULL,
    passportnumber character varying(10) NOT NULL,
    status character varying(10) NOT NULL,
    startdate date NOT NULL,
    expectedenddate date NOT NULL,
    enddate date NOT NULL,
    CONSTRAINT contract_check CHECK ((expectedenddate >= startdate)),
    CONSTRAINT contract_check1 CHECK ((enddate >= startdate)),
    CONSTRAINT contract_status_check CHECK (((status)::text = ANY ((ARRAY['Заключен'::character
varying, 'В работе'::character varying, 'Расторгнут'::character varying, 'Завершен'::character
varying]))::text[])))
);

```

```

ALTER TABLE public.contract OWNER TO postgres;

```

```

--
-- TOC entry 224 (class 1259 OID 19140)
-- Name: contract_contractnumber_seq; Type: SEQUENCE; Schema: public; Owner: postgres
--

```

```

CREATE SEQUENCE public.contract_contractnumber_seq
AS integer

```

```

START WITH 1
INCREMENT BY 1
NO MINVALUE
NO MAXVALUE
CACHE 1;

ALTER TABLE public.contract_contractnumber_seq OWNER TO postgres;

--
-- TOC entry 3452 (class 0 OID 0)
-- Dependencies: 224
-- Name: contract_contractnumber_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
--

ALTER SEQUENCE public.contract_contractnumber_seq OWNED BY public.contract.contractnumber;

--
-- TOC entry 217 (class 1259 OID 19091)
-- Name: details; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.details (
    detailcode integer NOT NULL,
    detailname character varying(40) NOT NULL,
    modelcode integer NOT NULL,
    producer character varying(60) NOT NULL
);

ALTER TABLE public.details OWNER TO postgres;

--
-- TOC entry 216 (class 1259 OID 19090)
-- Name: details_detailcode_seq; Type: SEQUENCE; Schema: public; Owner: postgres
--

CREATE SEQUENCE public.details_detailcode_seq
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;

ALTER TABLE public.details_detailcode_seq OWNER TO postgres;

--
-- TOC entry 3453 (class 0 OID 0)
-- Dependencies: 216
-- Name: details_detailcode_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
--

ALTER SEQUENCE public.details_detailcode_seq OWNED BY public.details.detailcode;

```

```

--
-- TOC entry 228 (class 1259 OID 19178)
-- Name: detailslist; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.detailslist (
    details_id integer NOT NULL,
    contractnumber integer NOT NULL,
    detailcode integer NOT NULL,
    detailcount integer NOT NULL,
    CONSTRAINT detailslist_detailcount_check CHECK ((detailcount >= 0))
);

ALTER TABLE public.detailslist OWNER TO postgres;

--
-- TOC entry 227 (class 1259 OID 19177)
-- Name: detailslist_details_id_seq; Type: SEQUENCE; Schema: public; Owner: postgres
--

CREATE SEQUENCE public.detailslist_details_id_seq
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;

ALTER TABLE public.detailslist_details_id_seq OWNER TO postgres;

--
-- TOC entry 3454 (class 0 OID 0)
-- Dependencies: 227
-- Name: detailslist_details_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
--

ALTER SEQUENCE public.detailslist_details_id_seq OWNED BY public.detailslist.details_id;

--
-- TOC entry 223 (class 1259 OID 19120)
-- Name: employee; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.employee (
    personalnum integer NOT NULL,
    fullname character varying(50) NOT NULL,
    phonenumber character varying(10) NOT NULL,
    passportnumber character varying(10) NOT NULL,
    garagecode integer NOT NULL,
    "postCode" integer NOT NULL,
    CONSTRAINT employee_fullname_check CHECK (((fullname)::text ~ '[a-яA-Я ]+$'::text)),
    CONSTRAINT employee_passportnumber_check CHECK (((passportnumber)::text ~
'^[0-9a-zA-Z]+$'::text)),
    CONSTRAINT employee_phonenumber_check CHECK (((phonenumber)::text ~ '[0-9]+$'::text))
);

```

```
ALTER TABLE public.employee OWNER TO postgres;
```

```
--  
-- TOC entry 222 (class 1259 OID 19119)  
-- Name: employee_garagecode_seq; Type: SEQUENCE; Schema: public; Owner: postgres  
--
```

```
CREATE SEQUENCE public.employee_garagecode_seq  
    AS integer  
    START WITH 1  
    INCREMENT BY 1  
    NO MINVALUE  
    NO MAXVALUE  
    CACHE 1;
```

```
ALTER TABLE public.employee_garagecode_seq OWNER TO postgres;
```

```
--  
-- TOC entry 3455 (class 0 OID 0)  
-- Dependencies: 222  
-- Name: employee_garagecode_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres  
--
```

```
ALTER SEQUENCE public.employee_garagecode_seq OWNED BY public.employee.garagecode;
```

```
--  
-- TOC entry 221 (class 1259 OID 19118)  
-- Name: employee_personalnum_seq; Type: SEQUENCE; Schema: public; Owner: postgres  
--
```

```
CREATE SEQUENCE public.employee_personalnum_seq  
    AS integer  
    START WITH 1  
    INCREMENT BY 1  
    NO MINVALUE  
    NO MAXVALUE  
    CACHE 1;
```

```
ALTER TABLE public.employee_personalnum_seq OWNER TO postgres;
```

```
--  
-- TOC entry 3456 (class 0 OID 0)  
-- Dependencies: 221  
-- Name: employee_personalnum_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres  
--
```

```
ALTER SEQUENCE public.employee_personalnum_seq OWNED BY public.employee.personalnum;
```

```
--  
-- TOC entry 219 (class 1259 OID 19098)  
-- Name: garage; Type: TABLE; Schema: public; Owner: postgres  
--
```



```
CREATE TABLE public.garage (
    garagecode integer NOT NULL,
    garagename character varying(30) NOT NULL,
    garageaddress character varying(100) NOT NULL
);
```

```
ALTER TABLE public.garage OWNER TO postgres;
```

```
--
-- TOC entry 218 (class 1259 OID 19097)
-- Name: garage_garagecode_seq; Type: SEQUENCE; Schema: public; Owner: postgres
--
```

```
CREATE SEQUENCE public.garage_garagecode_seq
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;
```

```
ALTER TABLE public.garage_garagecode_seq OWNER TO postgres;
```

```
--
-- TOC entry 3457 (class 0 OID 0)
-- Dependencies: 218
-- Name: garage_garagecode_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
--
```

```
ALTER SEQUENCE public.garage_garagecode_seq OWNED BY public.garage.garagecode;
```

```
--
-- TOC entry 210 (class 1259 OID 19056)
-- Name: model; Type: TABLE; Schema: public; Owner: postgres
--
```

```
CREATE TABLE public.model (
    modelcode integer NOT NULL,
    modelname character varying(20) NOT NULL,
    brand character varying(20) NOT NULL,
    country character varying(30) NOT NULL,
    CONSTRAINT model_country_check CHECK (((country)::text ~ '^[a-zA-Z ]+$'::text)),
    CONSTRAINT model_modelname_check CHECK (((modelname)::text ~ '^[0-9a-zA-Z ]+$'::text))
);
```

```
ALTER TABLE public.model OWNER TO postgres;
```

```
--
-- TOC entry 209 (class 1259 OID 19055)
-- Name: model_modelcode_seq; Type: SEQUENCE; Schema: public; Owner: postgres
--
```

```
CREATE SEQUENCE public.model_modelcode_seq
    AS integer
    START WITH 1
```

```

INCREMENT BY 1
NO MINVALUE
NO MAXVALUE
CACHE 1;

ALTER TABLE public.model_modelcode_seq OWNER TO postgres;

--
-- TOC entry 3458 (class 0 OID 0)
-- Dependencies: 209
-- Name: model_modelcode_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
--

ALTER SEQUENCE public.model_modelcode_seq OWNED BY public.model.modelcode;

--
-- TOC entry 213 (class 1259 OID 19073)
-- Name: post; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.post (
    "postCode" integer NOT NULL,
    postname character varying(40) NOT NULL,
    salary integer NOT NULL,
    amount integer NOT NULL,
    specialization character varying(40) NOT NULL,
    category integer NOT NULL,
    CONSTRAINT post_amount_check CHECK ((amount >= 0)),
    CONSTRAINT post_category_check CHECK ((category > 0)),
    CONSTRAINT post_salary_check CHECK ((salary > 0))
);

ALTER TABLE public.post OWNER TO postgres;

--
-- TOC entry 212 (class 1259 OID 19072)
-- Name: post_postCode_seq; Type: SEQUENCE; Schema: public; Owner: postgres
--

CREATE SEQUENCE public."post_postCode_seq"
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;

ALTER TABLE public."post_postCode_seq" OWNER TO postgres;

--
-- TOC entry 3459 (class 0 OID 0)
-- Dependencies: 212
-- Name: post_postCode_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
--

```

```
ALTER SEQUENCE public."post_postCode_seq" OWNED BY public.post."postCode";
```

```
--  
-- TOC entry 226 (class 1259 OID 19165)  
-- Name: price; Type: TABLE; Schema: public; Owner: postgres  
--
```

```
CREATE TABLE public.price (  
    detailcode integer NOT NULL,  
    fromdate date NOT NULL,  
    todate date NOT NULL,  
    price integer NOT NULL,  
    CONSTRAINT price_check CHECK ((todate >= fromdate)),  
    CONSTRAINT price_price_check CHECK ((price >= 0))  
);
```

```
ALTER TABLE public.price OWNER TO postgres;
```

```
--  
-- TOC entry 215 (class 1259 OID 19083)  
-- Name: service; Type: TABLE; Schema: public; Owner: postgres  
--
```

```
CREATE TABLE public.service (  
    servicecode integer NOT NULL,  
    servicename character varying(40) NOT NULL,  
    price integer NOT NULL,  
    CONSTRAINT service_price_check CHECK ((price > 0))  
);
```

```
ALTER TABLE public.service OWNER TO postgres;
```

```
--  
-- TOC entry 214 (class 1259 OID 19082)  
-- Name: service_servicecode_seq; Type: SEQUENCE; Schema: public; Owner: postgres  
--
```

```
CREATE SEQUENCE public.service_servicecode_seq  
    AS integer  
    START WITH 1  
    INCREMENT BY 1  
    NO MINVALUE  
    NO MAXVALUE  
    CACHE 1;
```

```
ALTER TABLE public.service_servicecode_seq OWNER TO postgres;
```

```
--  
-- TOC entry 3460 (class 0 OID 0)  
-- Dependencies: 214  
-- Name: service_servicecode_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres  
--
```

```
ALTER SEQUENCE public.service_servicecode_seq OWNED BY public.service.servicecode;
```

```

--
-- TOC entry 230 (class 1259 OID 19196)
-- Name: serviceslist; Type: TABLE; Schema: public; Owner: postgres
--

CREATE TABLE public.serviceslist (
    services_id integer NOT NULL,
    contractnumber integer NOT NULL,
    servicecode integer NOT NULL,
    personalnum integer NOT NULL,
    status character varying(9) NOT NULL,
    CONSTRAINT serviceslist_status_check CHECK (((status)::text = ANY ((ARRAY['В работе'::character
varying, 'Отменено'::character varying, 'Выполнено'::character varying]))::text[])))
);

ALTER TABLE public.serviceslist OWNER TO postgres;

--
-- TOC entry 229 (class 1259 OID 19195)
-- Name: serviceslist_services_id_seq; Type: SEQUENCE; Schema: public; Owner: postgres
--

CREATE SEQUENCE public.serviceslist_services_id_seq
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;

ALTER TABLE public.serviceslist_services_id_seq OWNER TO postgres;

--
-- TOC entry 3461 (class 0 OID 0)
-- Dependencies: 229
-- Name: serviceslist_services_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
--

ALTER SEQUENCE public.serviceslist_services_id_seq OWNED BY public.serviceslist.services_id;

--
-- TOC entry 3240 (class 2604 OID 19144)
-- Name: contract contractnumber; Type: DEFAULT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.contract ALTER COLUMN contractnumber SET DEFAULT
nextval('public.contract_contractnumber_seq'::regclass);

--
-- TOC entry 3229 (class 2604 OID 19094)
-- Name: details detailcode; Type: DEFAULT; Schema: public; Owner: postgres
--

```

```
ALTER TABLE ONLY public.details ALTER COLUMN detailcode SET DEFAULT
nextval('public.details_detailcode_seq'::regclass);
```

```
--
-- TOC entry 3246 (class 2604 OID 19181)
-- Name: detailslist details_id; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.detailslist ALTER COLUMN details_id SET DEFAULT
nextval('public.detailslist_details_id_seq'::regclass);
```

```
--
-- TOC entry 3235 (class 2604 OID 19123)
-- Name: employee personalnum; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.employee ALTER COLUMN personalnum SET DEFAULT
nextval('public.employee_personalnum_seq'::regclass);
```

```
--
-- TOC entry 3236 (class 2604 OID 19124)
-- Name: employee garagecode; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.employee ALTER COLUMN garagecode SET DEFAULT
nextval('public.employee_garagecode_seq'::regclass);
```

```
--
-- TOC entry 3230 (class 2604 OID 19101)
-- Name: garage garagecode; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.garage ALTER COLUMN garagecode SET DEFAULT
nextval('public.garage_garagecode_seq'::regclass);
```

```
--
-- TOC entry 3217 (class 2604 OID 19059)
-- Name: model modelcode; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.model ALTER COLUMN modelcode SET DEFAULT
nextval('public.model_modelcode_seq'::regclass);
```

```
--
-- TOC entry 3223 (class 2604 OID 19076)
-- Name: post postCode; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.post ALTER COLUMN "postCode" SET DEFAULT
nextval('public."post_postCode_seq"'::regclass);
```

```
--
```

```
-- TOC entry 3227 (class 2604 OID 19086)
-- Name: service servicecode; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.service ALTER COLUMN servicecode SET DEFAULT
nextval('public.service_servicecode_seq'::regclass);
```

```
--
-- TOC entry 3248 (class 2604 OID 19199)
-- Name: serviceslist services_id; Type: DEFAULT; Schema: public; Owner: postgres
--
```

```
ALTER TABLE ONLY public.serviceslist ALTER COLUMN services_id SET DEFAULT
nextval('public.serviceslist_services_id_seq'::regclass);
```

```
--
-- TOC entry 3436 (class 0 OID 19104)
-- Dependencies: 220
-- Data for Name: car; Type: TABLE DATA; Schema: public; Owner: postgres
--
```

```
INSERT INTO public.car (registrationnumber, caryear, carpower, color, modelcode) VALUES
('A123BC456', '2020-01-01', 150, 'Черный', 1);
```

```
--
-- TOC entry 3427 (class 0 OID 19064)
-- Dependencies: 211
-- Data for Name: client; Type: TABLE DATA; Schema: public; Owner: postgres
--
```

```
INSERT INTO public.client (passportnumber, fullname, phonenumber, emailaddress) VALUES
('1234567890', 'Иванов Иван Иванович', '1234567890', 'ivanov@example.com');
```

```
--
-- TOC entry 3441 (class 0 OID 19141)
-- Dependencies: 225
-- Data for Name: contract; Type: TABLE DATA; Schema: public; Owner: postgres
--
```

```
INSERT INTO public.contract (contractnumber, registrationnumber, personalnum, passportnumber,
status, startdate, expectedenddate, enddate) VALUES (1, 'A123BC456', 1, '1234567890', 'Заклучен',
'2023-03-05', '2023-04-05', '2023-04-05');
```

```
--
-- TOC entry 3433 (class 0 OID 19091)
-- Dependencies: 217
-- Data for Name: details; Type: TABLE DATA; Schema: public; Owner: postgres
--
```

```
INSERT INTO public.details (detailcode, detailname, modelcode, producer) VALUES (1, 'Тормозные
колодки', 1, 'Brembo');
```

```
--
```

```

-- TOC entry 3444 (class 0 OID 19178)
-- Dependencies: 228
-- Data for Name: detailslist; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.detailslist (details_id, contractnumber, detailcode, detailcount) VALUES (1, 1, 1, 2);

--

-- TOC entry 3439 (class 0 OID 19120)
-- Dependencies: 223
-- Data for Name: employee; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.employee (personalnum, fullname, phonenumber, passportnumber, garagecode,
"postCode") VALUES (1, 'Петров Петр Петрович', '1234567890', '0987654321', 1, 1);

--

-- TOC entry 3435 (class 0 OID 19098)
-- Dependencies: 219
-- Data for Name: garage; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.garage (garagecode, garagename, garageaddress) VALUES (1, 'Автомастерская
"Механик"', 'ул. Пушкина, д. 10');

--

-- TOC entry 3426 (class 0 OID 19056)
-- Dependencies: 210
-- Data for Name: model; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.model (modelcode, modelname, brand, country) VALUES (1, 'Model X', 'Tesla',
'USA');

--

-- TOC entry 3429 (class 0 OID 19073)
-- Dependencies: 213
-- Data for Name: post; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.post ("postCode", postname, salary, amount, specialization, category) VALUES (1,
'Мастер-механик', 30000, 5, 'Ремонт автомобилей', 1);

--

-- TOC entry 3442 (class 0 OID 19165)
-- Dependencies: 226
-- Data for Name: price; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.price (detailcode, fromdate, todate, price) VALUES (1, '2023-01-01', '2023-12-31',
1000);

--

```

```

-- TOC entry 3431 (class 0 OID 19083)
-- Dependencies: 215
-- Data for Name: service; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.service (servicecode, servicename, price) VALUES (1, 'Замена масла', 500);

--

-- TOC entry 3446 (class 0 OID 19196)
-- Dependencies: 230
-- Data for Name: serviceslist; Type: TABLE DATA; Schema: public; Owner: postgres
--

INSERT INTO public.serviceslist (services_id, contractnumber, servicecode, personalnum, status)
VALUES (1, 1, 1, 1, 'В работе');

--

-- TOC entry 3462 (class 0 OID 0)
-- Dependencies: 224
-- Name: contract_contractnumber_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.contract_contractnumber_seq', 1, true);

--

-- TOC entry 3463 (class 0 OID 0)
-- Dependencies: 216
-- Name: details_detailcode_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.details_detailcode_seq', 1, true);

--

-- TOC entry 3464 (class 0 OID 0)
-- Dependencies: 227
-- Name: detailslist_details_id_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.detailslist_details_id_seq', 1, true);

--

-- TOC entry 3465 (class 0 OID 0)
-- Dependencies: 222
-- Name: employee_garagecode_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.employee_garagecode_seq', 1, false);

--

-- TOC entry 3466 (class 0 OID 0)
-- Dependencies: 221
-- Name: employee_personalnum_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

```



```

SELECT pg_catalog.setval('public.employee_personalnum_seq', 1, true);

--
-- TOC entry 3467 (class 0 OID 0)
-- Dependencies: 218
-- Name: garage_garagecode_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.garage_garagecode_seq', 1, true);

--
-- TOC entry 3468 (class 0 OID 0)
-- Dependencies: 209
-- Name: model_modelcode_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.model_modelcode_seq', 1, true);

--
-- TOC entry 3469 (class 0 OID 0)
-- Dependencies: 212
-- Name: post_postCode_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public."post_postCode_seq"', 1, true);

--
-- TOC entry 3470 (class 0 OID 0)
-- Dependencies: 214
-- Name: service_servicecode_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.service_servicecode_seq', 1, true);

--
-- TOC entry 3471 (class 0 OID 0)
-- Dependencies: 229
-- Name: serviceslist_services_id_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
--

SELECT pg_catalog.setval('public.serviceslist_services_id_seq', 1, true);

--
-- TOC entry 3263 (class 2606 OID 19112)
-- Name: car car_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.car
  ADD CONSTRAINT car_pkey PRIMARY KEY (registrationnumber);

--

```

```

-- TOC entry 3253 (class 2606 OID 19071)
-- Name: client client_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.client
    ADD CONSTRAINT client_pkey PRIMARY KEY (passportnumber);

--

-- TOC entry 3267 (class 2606 OID 19149)
-- Name: contract contract_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.contract
    ADD CONSTRAINT contract_pkey PRIMARY KEY (contractnumber);

--

-- TOC entry 3259 (class 2606 OID 19096)
-- Name: details details_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.details
    ADD CONSTRAINT details_pkey PRIMARY KEY (detailcode);

--

-- TOC entry 3271 (class 2606 OID 19184)
-- Name: detailslist detailslist_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.detailslist
    ADD CONSTRAINT detailslist_pkey PRIMARY KEY (details_id);

--

-- TOC entry 3265 (class 2606 OID 19129)
-- Name: employee employee_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.employee
    ADD CONSTRAINT employee_pkey PRIMARY KEY (personalnum);

--

-- TOC entry 3261 (class 2606 OID 19103)
-- Name: garage garage_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.garage
    ADD CONSTRAINT garage_pkey PRIMARY KEY (garagecode);

--

-- TOC entry 3251 (class 2606 OID 19063)
-- Name: model model_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.model

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ADD CONSTRAINT model_pkey PRIMARY KEY (modelcode);

--
-- TOC entry 3255 (class 2606 OID 19081)
-- Name: post post_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.post
    ADD CONSTRAINT post_pkey PRIMARY KEY ("postCode");

--
-- TOC entry 3269 (class 2606 OID 19171)
-- Name: price price_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.price
    ADD CONSTRAINT price_pkey PRIMARY KEY (detailcode);

--
-- TOC entry 3257 (class 2606 OID 19089)
-- Name: service service_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.service
    ADD CONSTRAINT service_pkey PRIMARY KEY (servicecode);

--
-- TOC entry 3273 (class 2606 OID 19202)
-- Name: serviceslist serviceslist_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.serviceslist
    ADD CONSTRAINT serviceslist_pkey PRIMARY KEY (services_id);

--
-- TOC entry 3274 (class 2606 OID 19113)
-- Name: car car_modelcode_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.car
    ADD CONSTRAINT car_modelcode_fkey FOREIGN KEY (modelcode) REFERENCES
public.model(modelcode);

--
-- TOC entry 3277 (class 2606 OID 19160)
-- Name: contract contract_passportnumber_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.contract
    ADD CONSTRAINT contract_passportnumber_fkey FOREIGN KEY (passportnumber) REFERENCES
public.client(passportnumber);

```

```

--
-- TOC entry 3278 (class 2606 OID 19155)
-- Name: contract contract_personalnum_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.contract
  ADD CONSTRAINT contract_personalnum_fkey FOREIGN KEY (personalnum) REFERENCES
public.employee(personalnum);

--
-- TOC entry 3279 (class 2606 OID 19150)
-- Name: contract contract_registrationnumber_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.contract
  ADD CONSTRAINT contract_registrationnumber_fkey FOREIGN KEY (registrationnumber)
REFERENCES public.car(registrationnumber);

--
-- TOC entry 3281 (class 2606 OID 19185)
-- Name: detailslist detailslist_contractnumber_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.detailslist
  ADD CONSTRAINT detailslist_contractnumber_fkey FOREIGN KEY (contractnumber) REFERENCES
public.contract(contractnumber);

--
-- TOC entry 3282 (class 2606 OID 19190)
-- Name: detailslist detailslist_detailcode_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.detailslist
  ADD CONSTRAINT detailslist_detailcode_fkey FOREIGN KEY (detailcode) REFERENCES
public.details(detailcode);

--
-- TOC entry 3275 (class 2606 OID 19130)
-- Name: employee employee_garagecode_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.employee
  ADD CONSTRAINT employee_garagecode_fkey FOREIGN KEY (garagecode) REFERENCES
public.garage(garagecode);

--
-- TOC entry 3276 (class 2606 OID 19135)
-- Name: employee employee_postCode_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres

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```

--

ALTER TABLE ONLY public.employee
  ADD CONSTRAINT "employee_postCode_fkey" FOREIGN KEY ("postCode") REFERENCES
public.post("postCode");

--

-- TOC entry 3280 (class 2606 OID 19172)
-- Name: price price_detailcode_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres
--

ALTER TABLE ONLY public.price
  ADD CONSTRAINT price_detailcode_fkey FOREIGN KEY (detailcode) REFERENCES
public.details(detailcode);

--

-- TOC entry 3283 (class 2606 OID 19203)
-- Name: serviceslist serviceslist_contractnumber_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.serviceslist
  ADD CONSTRAINT serviceslist_contractnumber_fkey FOREIGN KEY (contractnumber)
REFERENCES public.contract(contractnumber);

--

-- TOC entry 3284 (class 2606 OID 19213)
-- Name: serviceslist serviceslist_personalnum_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.serviceslist
  ADD CONSTRAINT serviceslist_personalnum_fkey FOREIGN KEY (personalnum) REFERENCES
public.employee(personalnum);

--

-- TOC entry 3285 (class 2606 OID 19208)
-- Name: serviceslist serviceslist_servicecode_fkey; Type: FK CONSTRAINT; Schema: public; Owner:
postgres
--

ALTER TABLE ONLY public.serviceslist
  ADD CONSTRAINT serviceslist_servicecode_fkey FOREIGN KEY (servicecode) REFERENCES
public.service(servicecode);

-- Completed on 2023-03-24 16:44:48

--

-- PostgreSQL database dump complete
--

--

```

Вывод:

В ходе проделанной работы были изучены и использованы на практике стандартные инструменты графического интерфейса для СУБД PostgreSQL, также инструменты резервного копирования и восстановления БД. В итоге работы была создана и заполнена БД, а также была создана ее резервная копия.