Лабораторная работа №3

«Создание таблиц базы данных Postgresql. Заполнение таблиц рабочими данными»

по дисциплине

«Проектирование и реализация баз данных»

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2021

Цель лабораторной работы: овладеть практическими навыками создания таблиц базы данных PostgreSQL 1X, заполнения их рабочими данными, резервного копирования и восстановления БД.

Выполнение практического задания:

Наименование БД: db_lab3.

Схема логической модели базы данных: рисунок 1.

Dump, содержащий скрипты работы с бд:

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

-- Dumped from database version 12.3
-- Dumped by pg_dump version 13.2

-- Started on 2021-04-19 17:22:50

-- Создание базы данных
CREATE DATABASE db_lab3
    WITH
    OWNER = admin
    ENCODING = 'UTF8'
    LC_COLLATE = 'Russian_Russia.1251'
    LC_CTYPE = 'Russian_Russia.1251'
    TABLESPACE = pg_default
    CONNECTION LIMIT = -1;

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;

-- Создаём таблицы


--
-- TOC entry 203 (class 1259 OID 55210)
-- Name: lab_models_accident; Type: TABLE; Schema: public; Owner:
admin
--
```

```sql
CREATE TABLE public.lab_models_accident (
    id integer NOT NULL,
    "desc" text NOT NULL,
    contract_id integer NOT NULL
);


ALTER TABLE public.lab_models_accident OWNER TO admin;

--
-- TOC entry 202 (class 1259 OID 55208)
-- Name: lab_models_accident_id_seq; Type: SEQUENCE; Schema: public;
Owner: admin
--

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


ALTER TABLE public.lab_models_accident_id_seq OWNER TO admin;

--
-- TOC entry 2976 (class 0 OID 0)
-- Dependencies: 202
-- Name: lab_models_accident_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--

ALTER SEQUENCE public.lab_models_accident_id_seq OWNED BY
public.lab_models_accident.id;



--
-- TOC entry 205 (class 1259 OID 55221)
-- Name: lab_models_car; Type: TABLE; Schema: public; Owner: admin
--

-- Таблица машин вместе с ограничениями на поля

CREATE TABLE public.lab_models_car (
    id integer NOT NULL,
    registration_code character varying(64) NOT NULL,
    body_code character varying(64) NOT NULL,
    engine_code character varying(64) NOT NULL,
    release_year smallint NOT NULL,
    mileage integer NOT NULL,
```

```
    price numeric(12,2) NOT NULL,
    last_maintenance timestamp with time zone NOT NULL,
    special_notes text NOT NULL,
    status boolean NOT NULL,
    model_id integer NOT NULL,
    CONSTRAINT car_last_maintenance_gte CHECK ((last_maintenance >=
'1950-01-01 03:00:00+03'::timestamp with time zone)),
    CONSTRAINT car_last_maintenance_lte CHECK ((last_maintenance <=
'2101-01-01 02:59:59.999999+03'::timestamp with time zone)),
    CONSTRAINT car_price CHECK ((price > (0)::numeric)),
    CONSTRAINT car_year_gte CHECK ((release_year >= 1900)),
    CONSTRAINT car_year_lte CHECK ((release_year <= 2100)),
    CONSTRAINT lab_models_car_mileage_check CHECK ((mileage >= 0)),
    CONSTRAINT lab_models_car_release_year_check CHECK ((release_year
>= 0))
);


ALTER TABLE public.lab_models_car OWNER TO admin;

--
-- TOC entry 204 (class 1259 OID 55219)
-- Name: lab_models_car_id_seq; Type: SEQUENCE; Schema: public; Owner:
admin
--

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


ALTER TABLE public.lab_models_car_id_seq OWNER TO admin;

--
-- TOC entry 2977 (class 0 OID 0)
-- Dependencies: 204
-- Name: lab_models_car_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--

ALTER SEQUENCE public.lab_models_car_id_seq OWNED BY
public.lab_models_car.id;



--
-- TOC entry 207 (class 1259 OID 55240)
-- Name: lab_models_carmodel; Type: TABLE; Schema: public; Owner:
admin
```

```
--
-- В этой таблице ограничение на выбор бренда из списка

CREATE TABLE public.lab_models_carmodel (
    id integer NOT NULL,
    brand character varying(32) NOT NULL,
    name character varying(128) NOT NULL,
    "desc" text NOT NULL,
    CONSTRAINT car_model_brand CHECK (((brand)::text = ANY
((ARRAY['honda'::character varying, 'mazda'::character varying,
'ford'::character varying, 'chevrolet'::character varying])::text[])))
);


ALTER TABLE public.lab_models_carmodel OWNER TO admin;

--
-- TOC entry 206 (class 1259 OID 55238)
-- Name: lab_models_carmodel_id_seq; Type: SEQUENCE; Schema: public;
Owner: admin
--

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


ALTER TABLE public.lab_models_carmodel_id_seq OWNER TO admin;

--
-- TOC entry 2978 (class 0 OID 0)
-- Dependencies: 206
-- Name: lab_models_carmodel_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--

ALTER SEQUENCE public.lab_models_carmodel_id_seq OWNED BY
public.lab_models_carmodel.id;



--
-- TOC entry 209 (class 1259 OID 55251)
-- Name: lab_models_client; Type: TABLE; Schema: public; Owner: admin
--

CREATE TABLE public.lab_models_client (
    id integer NOT NULL,
```

```
    name character varying(64) NOT NULL,
    address character varying(64) NOT NULL,
    phone bigint NOT NULL,
    status boolean NOT NULL,
    passport_number bigint NOT NULL,
    passport_when timestamp with time zone NOT NULL,
    passport_by character varying(256) NOT NULL,
    CONSTRAINT client_passport_number_gte CHECK ((passport_number >=
1000000000)),
    CONSTRAINT client_passport_number_lt CHECK ((passport_number <
'10000000000'::bigint)),
    CONSTRAINT client_passport_when_gte CHECK ((passport_when >=
'1950-01-01 03:00:00+03'::timestamp with time zone)),
    CONSTRAINT client_passport_when_lte CHECK ((passport_when <=
'2101-01-01 02:59:59.999999+03'::timestamp with time zone)),
    CONSTRAINT client_phone_gte CHECK ((phone >=
'10000000000'::bigint)),
    CONSTRAINT client_phone_lt CHECK ((phone <
'100000000000'::bigint)),
    CONSTRAINT lab_models_client_passport_number_4972ded4_check CHECK
((passport_number >= 0)),
    CONSTRAINT lab_models_client_phone_check CHECK ((phone >= 0))
);


ALTER TABLE public.lab_models_client OWNER TO admin;

--
-- TOC entry 208 (class 1259 OID 55249)
-- Name: lab_models_client_id_seq; Type: SEQUENCE; Schema: public;
Owner: admin
--

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


ALTER TABLE public.lab_models_client_id_seq OWNER TO admin;

--
-- TOC entry 2979 (class 0 OID 0)
-- Dependencies: 208
-- Name: lab_models_client_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--
```

```sql
ALTER SEQUENCE public.lab_models_client_id_seq OWNED BY
public.lab_models_client.id;


--
-- TOC entry 211 (class 1259 OID 55260)
-- Name: lab_models_employee; Type: TABLE; Schema: public; Owner:
admin
--

CREATE TABLE public.lab_models_employee (
    id integer NOT NULL,
    name character varying(64) NOT NULL,
    passport_number bigint NOT NULL,
    passport_when timestamp with time zone NOT NULL,
    passport_by character varying(256) NOT NULL,
    position_id integer NOT NULL,
    CONSTRAINT employee_passport_number_gte CHECK ((passport_number >=
1000000000)),
    CONSTRAINT employee_passport_number_lt CHECK ((passport_number <
'10000000000'::bigint)),
    CONSTRAINT employee_passport_when_gte CHECK ((passport_when >=
'1950-01-01 03:00:00+03'::timestamp with time zone)),
    CONSTRAINT employee_passport_when_lte CHECK ((passport_when <=
'2101-01-01 02:59:59.999999+03'::timestamp with time zone)),
    CONSTRAINT lab_models_employee_passport_number_98445d24_check
CHECK ((passport_number >= 0))
);


ALTER TABLE public.lab_models_employee OWNER TO admin;

--
-- TOC entry 210 (class 1259 OID 55258)
-- Name: lab_models_employee_id_seq; Type: SEQUENCE; Schema: public;
Owner: admin
--

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


ALTER TABLE public.lab_models_employee_id_seq OWNER TO admin;

--
-- TOC entry 2980 (class 0 OID 0)
-- Dependencies: 210
```

```
--
-- Name: lab_models_employee_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--

ALTER SEQUENCE public.lab_models_employee_id_seq OWNED BY
public.lab_models_employee.id;


--
-- TOC entry 213 (class 1259 OID 55270)
-- Name: lab_models_extension; Type: TABLE; Schema: public; Owner:
admin
--

CREATE TABLE public.lab_models_extension (
    id integer NOT NULL,
    datetime timestamp with time zone NOT NULL,
    hours smallint NOT NULL,
    contract_id integer NOT NULL,
    CONSTRAINT extension_datetime_gte CHECK ((datetime >= '1900-01-01
02:30:17+02:30:17'::timestamp with time zone)),
    CONSTRAINT extension_datetime_lte CHECK ((datetime <= '2101-01-01
02:59:59.999999+03'::timestamp with time zone)),
    CONSTRAINT lab_models_extension_hours_check CHECK ((hours >= 0))
);


ALTER TABLE public.lab_models_extension OWNER TO admin;

--
-- TOC entry 212 (class 1259 OID 55268)
-- Name: lab_models_extension_id_seq; Type: SEQUENCE; Schema: public;
Owner: admin
--

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


ALTER TABLE public.lab_models_extension_id_seq OWNER TO admin;

--
-- TOC entry 2981 (class 0 OID 0)
-- Dependencies: 212
-- Name: lab_models_extension_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--
```

```sql
ALTER SEQUENCE public.lab_models_extension_id_seq OWNED BY
public.lab_models_extension.id;


--
-- TOC entry 215 (class 1259 OID 55279)
-- Name: lab_models_position; Type: TABLE; Schema: public; Owner:
admin
--

CREATE TABLE public.lab_models_position (
    id integer NOT NULL,
    wage numeric(10,2) NOT NULL,
    responsibilities text NOT NULL,
    name character varying(128) NOT NULL,
    CONSTRAINT position_wage CHECK ((wage > (0)::numeric))
);


ALTER TABLE public.lab_models_position OWNER TO admin;

--
-- TOC entry 214 (class 1259 OID 55277)
-- Name: lab_models_position_id_seq; Type: SEQUENCE; Schema: public;
Owner: admin
--

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


ALTER TABLE public.lab_models_position_id_seq OWNER TO admin;

--
-- TOC entry 2982 (class 0 OID 0)
-- Dependencies: 214
-- Name: lab_models_position_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--

ALTER SEQUENCE public.lab_models_position_id_seq OWNED BY
public.lab_models_position.id;


--
-- TOC entry 217 (class 1259 OID 55290)
```

```
--
-- Name: lab_models_rentcontract; Type: TABLE; Schema: public; Owner:
admin
--

CREATE TABLE public.lab_models_rentcontract (
    id integer NOT NULL,
    rent_start timestamp with time zone NOT NULL,
    hours smallint NOT NULL,
    rent_end timestamp with time zone,
    car_id integer NOT NULL,
    client_id integer NOT NULL,
    give_employee_id integer NOT NULL,
    return_employee_id integer NOT NULL,
    CONSTRAINT lab_models_rentcontract_hours_check CHECK ((hours >=
0)),
    CONSTRAINT rentcontract_rent_end_gte CHECK ((rent_end >
rent_start)),
    CONSTRAINT rentcontract_rent_end_lte CHECK ((rent_end <= '2101-01-
01 02:59:59.999999+03'::timestamp with time zone)),
    CONSTRAINT rentcontract_rent_start_gte CHECK ((rent_start >=
'1900-01-01 02:30:17+02:30:17'::timestamp with time zone)),
    CONSTRAINT rentcontract_rent_start_lte CHECK ((rent_start <=
'2101-01-01 02:59:59.999999+03'::timestamp with time zone))
);


ALTER TABLE public.lab_models_rentcontract OWNER TO admin;

--
-- TOC entry 216 (class 1259 OID 55288)
-- Name: lab_models_rentcontract_id_seq; Type: SEQUENCE; Schema:
public; Owner: admin
--

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


ALTER TABLE public.lab_models_rentcontract_id_seq OWNER TO admin;

--
-- TOC entry 2983 (class 0 OID 0)
-- Dependencies: 216
-- Name: lab_models_rentcontract_id_seq; Type: SEQUENCE OWNED BY;
Schema: public; Owner: admin
--
```

```
ALTER SEQUENCE public.lab_models_rentcontract_id_seq OWNED BY
public.lab_models_rentcontract.id;


--
-- TOC entry 219 (class 1259 OID 55299)
-- Name: lab_models_violation; Type: TABLE; Schema: public; Owner:
admin
--

CREATE TABLE public.lab_models_violation (
    id integer NOT NULL,
    "desc" text NOT NULL,
    fine_value numeric(11,2) NOT NULL,
    contract_id integer NOT NULL,
    CONSTRAINT violation_fine CHECK ((fine_value > (0)::numeric))
);


ALTER TABLE public.lab_models_violation OWNER TO admin;

--
-- TOC entry 218 (class 1259 OID 55297)
-- Name: lab_models_violation_id_seq; Type: SEQUENCE; Schema: public;
Owner: admin
--

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


ALTER TABLE public.lab_models_violation_id_seq OWNER TO admin;

--
-- TOC entry 2984 (class 0 OID 0)
-- Dependencies: 218
-- Name: lab_models_violation_id_seq; Type: SEQUENCE OWNED BY; Schema:
public; Owner: admin
--

ALTER SEQUENCE public.lab_models_violation_id_seq OWNED BY
public.lab_models_violation.id;


--
-- TOC entry 2740 (class 2604 OID 55213)
```

```sql
-- Name: lab_models_accident id; Type: DEFAULT; Schema: public; Owner:
admin
--

ALTER TABLE ONLY public.lab_models_accident ALTER COLUMN id SET
DEFAULT nextval('public.lab_models_accident_id_seq'::regclass);


--
-- TOC entry 2741 (class 2604 OID 55224)
-- Name: lab_models_car id; Type: DEFAULT; Schema: public; Owner:
admin
--

ALTER TABLE ONLY public.lab_models_car ALTER COLUMN id SET DEFAULT
nextval('public.lab_models_car_id_seq'::regclass);


--
-- TOC entry 2749 (class 2604 OID 55243)
-- Name: lab_models_carmodel id; Type: DEFAULT; Schema: public; Owner:
admin
--

ALTER TABLE ONLY public.lab_models_carmodel ALTER COLUMN id SET
DEFAULT nextval('public.lab_models_carmodel_id_seq'::regclass);


--
-- TOC entry 2751 (class 2604 OID 55254)
-- Name: lab_models_client id; Type: DEFAULT; Schema: public; Owner:
admin
--

ALTER TABLE ONLY public.lab_models_client ALTER COLUMN id SET DEFAULT
nextval('public.lab_models_client_id_seq'::regclass);


--
-- TOC entry 2760 (class 2604 OID 55263)
-- Name: lab_models_employee id; Type: DEFAULT; Schema: public; Owner:
admin
--

ALTER TABLE ONLY public.lab_models_employee ALTER COLUMN id SET
DEFAULT nextval('public.lab_models_employee_id_seq'::regclass);


--
-- TOC entry 2766 (class 2604 OID 55273)
-- Name: lab_models_extension id; Type: DEFAULT; Schema: public;
Owner: admin
```

```
--

ALTER TABLE ONLY public.lab_models_extension ALTER COLUMN id SET
DEFAULT nextval('public.lab_models_extension_id_seq'::regclass);


--
-- TOC entry 2770 (class 2604 OID 55282)
-- Name: lab_models_position id; Type: DEFAULT; Schema: public; Owner:
admin
--

ALTER TABLE ONLY public.lab_models_position ALTER COLUMN id SET
DEFAULT nextval('public.lab_models_position_id_seq'::regclass);


--
-- TOC entry 2772 (class 2604 OID 55293)
-- Name: lab_models_rentcontract id; Type: DEFAULT; Schema: public;
Owner: admin
--

ALTER TABLE ONLY public.lab_models_rentcontract ALTER COLUMN id SET
DEFAULT nextval('public.lab_models_rentcontract_id_seq'::regclass);


--
-- TOC entry 2778 (class 2604 OID 55302)
-- Name: lab_models_violation id; Type: DEFAULT; Schema: public;
Owner: admin
--

ALTER TABLE ONLY public.lab_models_violation ALTER COLUMN id SET
DEFAULT nextval('public.lab_models_violation_id_seq'::regclass);


--
-- TOC entry 2954 (class 0 OID 55210)
-- Dependencies: 203
-- Data for Name: lab_models_accident; Type: TABLE DATA; Schema:
public; Owner: admin
--

-- Заполнение бд данными

COPY public.lab_models_accident (id, "desc", contract_id) FROM stdin;
1    врезался в столб1
\.


--
-- TOC entry 2956 (class 0 OID 55221)
```

```
-- Dependencies: 205
-- Data for Name: lab_models_car; Type: TABLE DATA; Schema: public;
Owner: admin
--

COPY public.lab_models_car (id, registration_code, body_code,
engine_code, release_year, mileage, price, last_maintenance,
special_notes, status, model_id) FROM stdin;
1	6315487asd	284fgs9d5	qe321sadf4	2005	300000	500000.00	2021-
04-15 12:43:25+03	Не была в авариях	t	2
\.


--
-- TOC entry 2958 (class 0 OID 55240)
-- Dependencies: 207
-- Data for Name: lab_models_carmodel; Type: TABLE DATA; Schema:
public; Owner: admin
--

COPY public.lab_models_carmodel (id, brand, name, "desc") FROM stdin;
2	honda	Civic VIII	С октября 2015 года выпускается десятое поколение
модели. Автомобиль получил 2,0-литровый двигатель DOHC i-VTEC (158 л.
с., 187 Н·м) от кроссовера Honda CR-V с бесступенчатой трансмиссией
CVT или механической 6-ступенчатой коробкой передач. А также с
двигателем объёмом 1,5 литра Earth Dreams (174 л. с., 220 Н·м) с
турбокомпрессором Mitsubishi и непосредственным впрыском, работающим в
паре только с вариатором.
\.


--
-- TOC entry 2960 (class 0 OID 55251)
-- Dependencies: 209
-- Data for Name: lab_models_client; Type: TABLE DATA; Schema: public;
Owner: admin
--

COPY public.lab_models_client (id, name, address, phone, status,
passport_number, passport_when, passport_by) FROM stdin;
1	Клиент Клиентович	г. Санкт-Петербург ул. Биржевая д. 14
	89111111111	t	7111111111	1980-04-19 12:54:41+03
	отделом УФМС России по гор. Москва
\.


--
-- TOC entry 2962 (class 0 OID 55260)
-- Dependencies: 211
-- Data for Name: lab_models_employee; Type: TABLE DATA; Schema:
public; Owner: admin
--
```

```
COPY public.lab_models_employee (id, name, passport_number,
passport_when, passport_by, position_id) FROM stdin;
1	Иван Иванов	1111111111 1987-04-19 13:46:48+04	отделом
УФМС России по гор. Москва 1
2	Федор Федоров	7114222222 1999-04-19 13:49:57+04	отделом
УФМС России по гор. Москва 2
\.


--
-- TOC entry 2964 (class 0 OID 55270)
-- Dependencies: 213
-- Data for Name: lab_models_extension; Type: TABLE DATA; Schema:
public; Owner: admin
--

COPY public.lab_models_extension (id, datetime, hours, contract_id)
FROM stdin;
1	2021-04-19 12:57:07+03	3	1
\.


--
-- TOC entry 2966 (class 0 OID 55279)
-- Dependencies: 215
-- Data for Name: lab_models_position; Type: TABLE DATA; Schema:
public; Owner: admin
--

COPY public.lab_models_position (id, wage, responsibilities, name)
FROM stdin;
1	40000.00	Принимать авто	Приёмщик авто
2	50000.00	Выдавать авто	выдаватель авто
\.


--
-- TOC entry 2968 (class 0 OID 55290)
-- Dependencies: 217
-- Data for Name: lab_models_rentcontract; Type: TABLE DATA; Schema:
public; Owner: admin
--

COPY public.lab_models_rentcontract (id, rent_start, hours, rent_end,
car_id, client_id, give_employee_id, return_employee_id) FROM stdin;
1	2021-04-19 12:55:51+03	24	\N	1	1	1	2
\.


--
-- TOC entry 2970 (class 0 OID 55299)
```

```
--
-- Dependencies: 219
-- Data for Name: lab_models_violation; Type: TABLE DATA; Schema:
public; Owner: admin
--

COPY public.lab_models_violation (id, "desc", fine_value, contract_id)
FROM stdin;
1	превышение скорости	1000.00	1
\.


--
-- TOC entry 2985 (class 0 OID 0)
-- Dependencies: 202
-- Name: lab_models_accident_id_seq; Type: SEQUENCE SET; Schema:
public; Owner: admin
--

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


--
-- TOC entry 2986 (class 0 OID 0)
-- Dependencies: 204
-- Name: lab_models_car_id_seq; Type: SEQUENCE SET; Schema: public;
Owner: admin
--

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


--
-- TOC entry 2987 (class 0 OID 0)
-- Dependencies: 206
-- Name: lab_models_carmodel_id_seq; Type: SEQUENCE SET; Schema:
public; Owner: admin
--

SELECT pg_catalog.setval('public.lab_models_carmodel_id_seq', 2,
true);


--
-- TOC entry 2988 (class 0 OID 0)
-- Dependencies: 208
-- Name: lab_models_client_id_seq; Type: SEQUENCE SET; Schema: public;
Owner: admin
--

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

```
--
-- TOC entry 2989 (class 0 OID 0)
-- Dependencies: 210
-- Name: lab_models_employee_id_seq; Type: SEQUENCE SET; Schema:
public; Owner: admin
--

SELECT pg_catalog.setval('public.lab_models_employee_id_seq', 2,
true);


--
-- TOC entry 2990 (class 0 OID 0)
-- Dependencies: 212
-- Name: lab_models_extension_id_seq; Type: SEQUENCE SET; Schema:
public; Owner: admin
--

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


--
-- TOC entry 2991 (class 0 OID 0)
-- Dependencies: 214
-- Name: lab_models_position_id_seq; Type: SEQUENCE SET; Schema:
public; Owner: admin
--

SELECT pg_catalog.setval('public.lab_models_position_id_seq', 2,
true);


--
-- TOC entry 2992 (class 0 OID 0)
-- Dependencies: 216
-- Name: lab_models_rentcontract_id_seq; Type: SEQUENCE SET; Schema:
public; Owner: admin
--

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


--
-- TOC entry 2993 (class 0 OID 0)
-- Dependencies: 218
-- Name: lab_models_violation_id_seq; Type: SEQUENCE SET; Schema:
public; Owner: admin
--
```

```sql
SELECT pg_catalog.setval('public.lab_models_violation_id_seq', 1,
true);


--
-- TOC entry 2782 (class 2606 OID 55218)
-- Name: lab_models_accident lab_models_accident_pkey; Type:
CONSTRAINT; Schema: public; Owner: admin
--

-- Установление primary key и unique

ALTER TABLE ONLY public.lab_models_accident
    ADD CONSTRAINT lab_models_accident_pkey PRIMARY KEY (id);


--
-- TOC entry 2785 (class 2606 OID 55235)
-- Name: lab_models_car lab_models_car_body_code_key; Type:
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_car
    ADD CONSTRAINT lab_models_car_body_code_key UNIQUE (body_code);


--
-- TOC entry 2788 (class 2606 OID 55237)
-- Name: lab_models_car lab_models_car_engine_code_key; Type:
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_car
    ADD CONSTRAINT lab_models_car_engine_code_key UNIQUE
(engine_code);


--
-- TOC entry 2791 (class 2606 OID 55231)
-- Name: lab_models_car lab_models_car_pkey; Type: CONSTRAINT; Schema:
public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_car
    ADD CONSTRAINT lab_models_car_pkey PRIMARY KEY (id);


--
-- TOC entry 2794 (class 2606 OID 55233)
-- Name: lab_models_car lab_models_car_registration_code_key; Type:
CONSTRAINT; Schema: public; Owner: admin
--
```

```
ALTER TABLE ONLY public.lab_models_car
    ADD CONSTRAINT lab_models_car_registration_code_key UNIQUE
(registration_code);



--
-- TOC entry 2796 (class 2606 OID 55248)
-- Name: lab_models_carmodel lab_models_carmodel_pkey; Type:
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_carmodel
    ADD CONSTRAINT lab_models_carmodel_pkey PRIMARY KEY (id);



--
-- TOC entry 2798 (class 2606 OID 55257)
-- Name: lab_models_client lab_models_client_pkey; Type: CONSTRAINT;
Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_client
    ADD CONSTRAINT lab_models_client_pkey PRIMARY KEY (id);



--
-- TOC entry 2800 (class 2606 OID 55416)
-- Name: lab_models_employee lab_models_employee_passport_number_key;
Type: CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_employee
    ADD CONSTRAINT lab_models_employee_passport_number_key UNIQUE
(passport_number);



--
-- TOC entry 2802 (class 2606 OID 55265)
-- Name: lab_models_employee lab_models_employee_pkey; Type:
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_employee
    ADD CONSTRAINT lab_models_employee_pkey PRIMARY KEY (id);



--
-- TOC entry 2806 (class 2606 OID 55276)
-- Name: lab_models_extension lab_models_extension_pkey; Type:
CONSTRAINT; Schema: public; Owner: admin
--
```

```
ALTER TABLE ONLY public.lab_models_extension
    ADD CONSTRAINT lab_models_extension_pkey PRIMARY KEY (id);


--
-- TOC entry 2808 (class 2606 OID 55287)
-- Name: lab_models_position lab_models_position_pkey; Type:
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_position
    ADD CONSTRAINT lab_models_position_pkey PRIMARY KEY (id);


--
-- TOC entry 2813 (class 2606 OID 55296)
-- Name: lab_models_rentcontract lab_models_rentcontract_pkey; Type:
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_rentcontract
    ADD CONSTRAINT lab_models_rentcontract_pkey PRIMARY KEY (id);


--
-- TOC entry 2817 (class 2606 OID 55307)
-- Name: lab_models_violation lab_models_violation_pkey; Type:
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_violation
    ADD CONSTRAINT lab_models_violation_pkey PRIMARY KEY (id);


--
-- TOC entry 2780 (class 1259 OID 55388)
-- Name: lab_models_accident_contract_id_d953f484; Type: INDEX;
Schema: public; Owner: admin
--

CREATE INDEX lab_models_accident_contract_id_d953f484 ON
public.lab_models_accident USING btree (contract_id);


--
-- TOC entry 2783 (class 1259 OID 55353)
-- Name: lab_models_car_body_code_231c5448_like; Type: INDEX; Schema:
public; Owner: admin
--
```

```
CREATE INDEX lab_models_car_body_code_231c5448_like ON
public.lab_models_car USING btree (body_code varchar_pattern_ops);



--
-- TOC entry 2786 (class 1259 OID 55354)
-- Name: lab_models_car_engine_code_441a607b_like; Type: INDEX;
Schema: public; Owner: admin
--

CREATE INDEX lab_models_car_engine_code_441a607b_like ON
public.lab_models_car USING btree (engine_code varchar_pattern_ops);



--
-- TOC entry 2789 (class 1259 OID 55387)
-- Name: lab_models_car_model_id_fdba4fb4; Type: INDEX; Schema:
public; Owner: admin
--

CREATE INDEX lab_models_car_model_id_fdba4fb4 ON public.lab_models_car
USING btree (model_id);



--
-- TOC entry 2792 (class 1259 OID 55352)
-- Name: lab_models_car_registration_code_1fd98ec1_like; Type: INDEX;
Schema: public; Owner: admin
--

CREATE INDEX lab_models_car_registration_code_1fd98ec1_like ON
public.lab_models_car USING btree (registration_code
varchar_pattern_ops);



--
-- TOC entry 2803 (class 1259 OID 55386)
-- Name: lab_models_employee_position_id_0c063bea; Type: INDEX;
Schema: public; Owner: admin
--

CREATE INDEX lab_models_employee_position_id_0c063bea ON
public.lab_models_employee USING btree (position_id);



--
-- TOC entry 2804 (class 1259 OID 55385)
-- Name: lab_models_extension_contract_id_2c782c1a; Type: INDEX;
Schema: public; Owner: admin
--
```

```
CREATE INDEX lab_models_extension_contract_id_2c782c1a ON
public.lab_models_extension USING btree (contract_id);


--
-- TOC entry 2809 (class 1259 OID 55375)
-- Name: lab_models_rentcontract_car_id_2926fbfd; Type: INDEX; Schema:
public; Owner: admin
--

CREATE INDEX lab_models_rentcontract_car_id_2926fbfd ON
public.lab_models_rentcontract USING btree (car_id);


--
-- TOC entry 2810 (class 1259 OID 55376)
-- Name: lab_models_rentcontract_client_id_4e19f8b8; Type: INDEX;
Schema: public; Owner: admin
--

CREATE INDEX lab_models_rentcontract_client_id_4e19f8b8 ON
public.lab_models_rentcontract USING btree (client_id);


--
-- TOC entry 2811 (class 1259 OID 55377)
-- Name: lab_models_rentcontract_give_employee_id_6d554f86; Type:
INDEX; Schema: public; Owner: admin
--

CREATE INDEX lab_models_rentcontract_give_employee_id_6d554f86 ON
public.lab_models_rentcontract USING btree (give_employee_id);


--
-- TOC entry 2814 (class 1259 OID 55378)
-- Name: lab_models_rentcontract_return_employee_id_f53210b9; Type:
INDEX; Schema: public; Owner: admin
--

CREATE INDEX lab_models_rentcontract_return_employee_id_f53210b9 ON
public.lab_models_rentcontract USING btree (return_employee_id);


--
-- TOC entry 2815 (class 1259 OID 55384)
-- Name: lab_models_violation_contract_id_558d63b7; Type: INDEX;
Schema: public; Owner: admin
--

CREATE INDEX lab_models_violation_contract_id_558d63b7 ON
public.lab_models_violation USING btree (contract_id);
```

```
--
-- TOC entry 2818 (class 2606 OID 55331)
-- Name: lab_models_accident
lab_models_accident_contract_id_d953f484_fk_lab_model; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--

-- Создание Foreign key

ALTER TABLE ONLY public.lab_models_accident
    ADD CONSTRAINT
lab_models_accident_contract_id_d953f484_fk_lab_model FOREIGN KEY
(contract_id) REFERENCES public.lab_models_rentcontract(id) DEFERRABLE
INITIALLY DEFERRED;


--
-- TOC entry 2819 (class 2606 OID 55326)
-- Name: lab_models_car
lab_models_car_model_id_fdba4fb4_fk_lab_models_carmodel_id; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_car
    ADD CONSTRAINT
lab_models_car_model_id_fdba4fb4_fk_lab_models_carmodel_id FOREIGN KEY
(model_id) REFERENCES public.lab_models_carmodel(id) DEFERRABLE
INITIALLY DEFERRED;


--
-- TOC entry 2820 (class 2606 OID 55314)
-- Name: lab_models_employee
lab_models_employee_position_id_0c063bea_fk_lab_model; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_employee
    ADD CONSTRAINT
lab_models_employee_position_id_0c063bea_fk_lab_model FOREIGN KEY
(position_id) REFERENCES public.lab_models_position(id) DEFERRABLE
INITIALLY DEFERRED;


--
-- TOC entry 2821 (class 2606 OID 55309)
-- Name: lab_models_extension
lab_models_extension_contract_id_2c782c1a_fk_lab_model; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--
```

```
ALTER TABLE ONLY public.lab_models_extension
    ADD CONSTRAINT
lab_models_extension_contract_id_2c782c1a_fk_lab_model FOREIGN KEY
(contract_id) REFERENCES public.lab_models_rentcontract(id) DEFERRABLE
INITIALLY DEFERRED;


--
-- TOC entry 2823 (class 2606 OID 55360)
-- Name: lab_models_rentcontract
lab_models_rentcontr_client_id_4e19f8b8_fk_lab_model; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_rentcontract
    ADD CONSTRAINT
lab_models_rentcontr_client_id_4e19f8b8_fk_lab_model FOREIGN KEY
(client_id) REFERENCES public.lab_models_client(id) DEFERRABLE
INITIALLY DEFERRED;


--
-- TOC entry 2824 (class 2606 OID 55365)
-- Name: lab_models_rentcontract
lab_models_rentcontr_give_employee_id_6d554f86_fk_lab_model; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_rentcontract
    ADD CONSTRAINT
lab_models_rentcontr_give_employee_id_6d554f86_fk_lab_model FOREIGN
KEY (give_employee_id) REFERENCES public.lab_models_employee(id)
DEFERRABLE INITIALLY DEFERRED;


--
-- TOC entry 2825 (class 2606 OID 55370)
-- Name: lab_models_rentcontract
lab_models_rentcontr_return_employee_id_f53210b9_fk_lab_model; Type:
FK CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_rentcontract
    ADD CONSTRAINT
lab_models_rentcontr_return_employee_id_f53210b9_fk_lab_model FOREIGN
KEY (return_employee_id) REFERENCES public.lab_models_employee(id)
DEFERRABLE INITIALLY DEFERRED;


--
-- TOC entry 2822 (class 2606 OID 55355)
```

```
-- Name: lab_models_rentcontract
lab_models_rentcontract_car_id_2926fbfd_fk_lab_models_car_id; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_rentcontract
    ADD CONSTRAINT
lab_models_rentcontract_car_id_2926fbfd_fk_lab_models_car_id FOREIGN
KEY (car_id) REFERENCES public.lab_models_car(id) DEFERRABLE INITIALLY
DEFERRED;


--
-- TOC entry 2826 (class 2606 OID 55379)
-- Name: lab_models_violation
lab_models_violation_contract_id_558d63b7_fk_lab_model; Type: FK
CONSTRAINT; Schema: public; Owner: admin
--

ALTER TABLE ONLY public.lab_models_violation
    ADD CONSTRAINT
lab_models_violation_contract_id_558d63b7_fk_lab_model FOREIGN KEY
(contract_id) REFERENCES public.lab_models_rentcontract(id) DEFERRABLE
INITIALLY DEFERRED;


-- Completed on 2021-04-19 17:22:51

--
-- PostgreSQL database dump complete
--
```
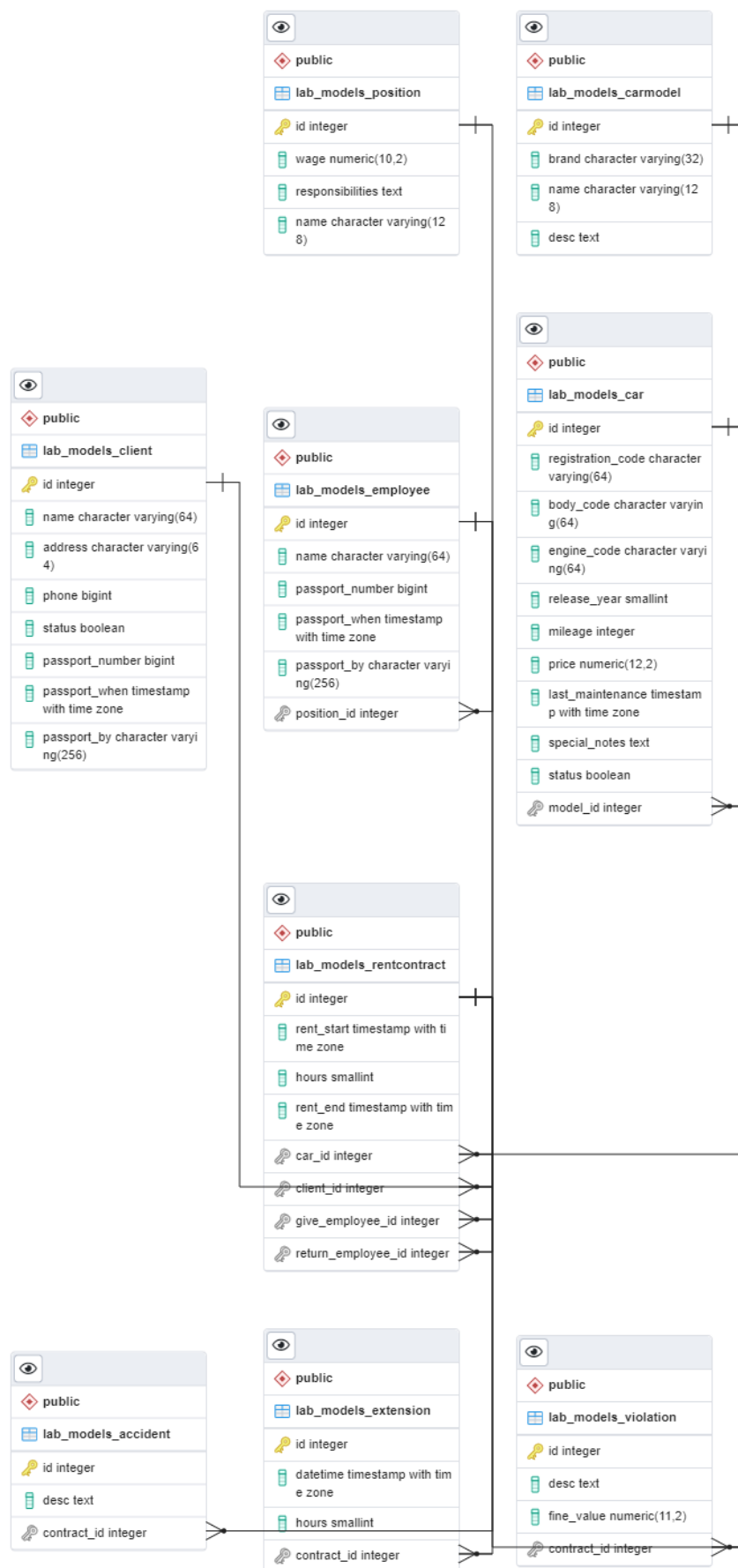
Рисунок 1 – логическая модель базы данных

Вывод: в ходе выполнения работы была создана база данных в Postgresql, созданы таблицы и ограничения на значения столбцов, в базу данных были занесены рабочие данные, а также была создана логическая модель базы данных и dump.