Министерство науки и высшего образования Российской Федерации

федеральное государственное автономное образовательное учреждение высшего образования

«НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО»

Отчет

по лабораторной работе №3 «СОЗДАНИЕ ТАБЛИЦ БАЗЫ ДАННЫХ POSTGRESQL. ЗАПОЛНЕНИЕ ТАБЛИЦ РАБОЧИМИ ДАННЫМИ»

по дисциплине «Проектирование и реализация баз данных»

Автор: Оспельников А. В.

Факультет: ИКТ

Группа: К3240

Преподаватель: Говорова М.М.



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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

Создать базу данных с использованием pgAdmin 4 (согласно индивидуальному заданию).

- 1. Создать схему в составе базы данных.
- 2. Создать таблицы базы данных.
- 3. Установить ограничения на данные: *Primary Key, Unique, Check, Foreign Key*.
- 4. Заполнить таблицы БД рабочими данными.
- 5. 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.

Вариант 18. БД «ГИБДД»

Описание предметной области:

Описание предметной области: ГИБДД производит регистрацию автомобилей и следит за безопасностью дорожного движения. БД служит для ведения статистики нарушений правил дорожного движения и аварий. В одной аварии водитель может нарушить несколько ПДД. У одной аварии может быть несколько участников — виновников и потерпевших. Статус участника аварии может быть неопределенным. В системе должна храниться история штрафов водителей за нарушения ППД и статус их оплаты.

БД должна содержать следующий минимальный набор сведений: Номер водительского удостоверения. ФИО водителя. Адрес. Номер телефона. Номер автомобиля. Марка автомобиля. Модель автомобиля. Год выпуска. Дата регистрации в ГИБДД. Код нарушения. Вид нарушения. Сумма штрафа. Срок лишения прав управления автомобилем. Дата нарушения. Время нарушения. Район аварии/нарушения. Улица аварии/нарушения.

Личный номер инспектора. ФИО инспектора. Дата аварии. Виновность владельца. Описание аварии.

Выполнение

Название создаваемой БД – «ГИБДД» («Police department»)

Схема логической модели базы данных, сгенерированная в Generate ERD, находится на рисунке 1.

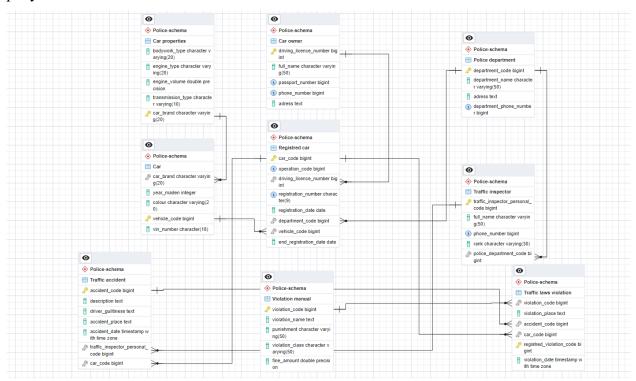


Рисунок 1 — ERD-схема базы данных

Plain-dump в конце отчета

После создания базы данных ГИБДД, содержащей 9 таблиц, была сделана ее резервная копия. Составные ключи были переделаны с помощью новых суррогатных.

Вывод

В данной лабораторной работе выполнен перенос базы данных с нотации IDEF1X в PGAdmin 4. По ходу данной работы я изучил основы языка SQL, заполнил таблицы несколькими строками данных, создал 2 резервных копии своей базы данных, затем восстановил одну из них, тем самым проверил ее работоспособность. С помощью другой копии можно быстро найти код для создания/восстановления таблиц или базы данных.

```
-- PostgreSQL database dump
-- Dumped from database version 16.0
-- Dumped by pg_dump version 16.0
-- Started on 2023-10-28 16:24:38
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 6 (class 2615 OID 16404)
-- Name: Police-schema; Type: SCHEMA; Schema: -; Owner: postgres
CREATE SCHEMA "Police-schema";
ALTER SCHEMA "Police-schema" OWNER TO postgres;
SET default_tablespace = ";
SET default_table_access_method = heap;
-- TOC entry 232 (class 1259 OID 16641)
-- Name: Car; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Car" (
```

```
car brand character varying(20) NOT NULL,
  year_maden integer NOT NULL,
  colour character varying(20) NOT NULL,
  vehicle_code bigint NOT NULL,
  vin_number character(18),
  CONSTRAINT "Car_vehicle_code_check" CHECK ((vehicle_code > 0)),
  CONSTRAINT "Car_vin_number_check" CHECK ((vin_number ~ '[0123456789ABCDEFGHJKLMNPRSTUVWXYZ]{17}'::text)),
  CONSTRAINT "Car_year_maden_check" CHECK ((year_maden > ((1800 - 1) - 1)))
);
ALTER TABLE "Police-schema". "Car" OWNER TO postgres;
-- TOC entry 4991 (class 0 OID 0)
-- Dependencies: 232
-- Name: TABLE "Car"; Type: COMMENT; Schema: Police-schema; Owner: postgres
COMMENT ON TABLE "Police-schema". "Car" IS 'Info about driver"s vehicle';
-- TOC entry 216 (class 1259 OID 16412)
-- Name: Car owner; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Car owner" (
  driving_licence_number bigint NOT NULL,
  full_name character varying(50) NOT NULL,
  passport_number bigint NOT NULL,
  phone_number bigint NOT NULL,
  adress text NOT NULL,
  CONSTRAINT "Car owner_driving_licence_number_check" CHECK ((driving_licence_number > 0)),
  CONSTRAINT "Car owner_passport_number_check" CHECK ((passport_number > 0))
);
ALTER TABLE "Police-schema". "Car owner" OWNER TO postgres;
-- TOC entry 4992 (class 0 OID 0)
-- Dependencies: 216
-- Name: TABLE "Car owner"; Type: COMMENT; Schema: Police-schema; Owner: postgres
COMMENT ON TABLE "Police-schema". "Car owner" IS 'Information about car's owner, his passport, phone numbers, etc.';
```

```
-- TOC entry 233 (class 1259 OID 16653)
-- Name: Car properties; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Car properties" (
  bodywork_type character varying(20) NOT NULL,
  engine_type character varying(20) NOT NULL,
  engine_volume double precision NOT NULL,
  transmission_type character varying(10) NOT NULL,
  car_brand character varying(20) NOT NULL,
  CONSTRAINT "Car properties_engine_volume_check" CHECK ((engine_volume > (0)::double precision)),
  CONSTRAINT "Car properties_engine_volume_check1" CHECK (((engine_volume > (0)::double precision) AND (engine_volume < (30)::double
precision)))
);
ALTER TABLE "Police-schema". "Car properties" OWNER TO postgres;
-- TOC entry 4993 (class 0 OID 0)
-- Dependencies: 233
-- Name: TABLE "Car properties"; Type: COMMENT; Schema: Police-schema; Owner: postgres
COMMENT ON TABLE "Police-schema". "Car properties" IS 'Manual with data about vehicle properties';
-- TOC entry 234 (class 1259 OID 16817)
-- Name: Car_vehicle_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Car_vehicle_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER SEQUENCE "Police-schema". "Car_vehicle_code_seq" OWNER TO postgres;
-- TOC entry 4994 (class 0 OID 0)
-- Dependencies: 234
-- Name: Car_vehicle_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER SEQUENCE "Police-schema". "Car_vehicle_code_seq" OWNED BY "Police-schema". "Car".vehicle_code;
```

```
-- TOC entry 222 (class 1259 OID 16452)
-- Name: Traffic inspector; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Traffic inspector" (
  traffic_inspector_personal_code bigint NOT NULL,
  full_name character varying(50),
  phone_number bigint,
  rank character varying(30),
  police_department_code bigint NOT NULL,
  CONSTRAINT\ "Traffic in spector\_phone\_number\_check"\ CHECK\ ((phone\_number > 0)),
  {\tt CONSTRAINT~"Traffic~inspector\_police\_department\_code\_check"~CHECK~((police\_department\_code > 0)),}
  CONSTRAINT "Traffic inspector_traffic_inspector_personal_code_check" CHECK ((traffic_inspector_personal_code > 0))
);
ALTER TABLE "Police-schema". "Traffic inspector" OWNER TO postgres;
-- TOC entry 4995 (class 0 OID 0)
-- Dependencies: 222
-- Name: TABLE "Traffic inspector"; Type: COMMENT; Schema: Police-schema; Owner: postgres
COMMENT ON TABLE "Police-schema". "Traffic inspector" IS 'Information about traffic inspector, his personal data';
-- TOC entry 220 (class 1259 OID 16450)
-- Name: Traffic inspector_traffic_inspector_personal_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Traffic inspector_traffic_inspector_personal_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER SEQUENCE "Police-schema". "Traffic inspector_traffic_inspector_personal_code_seq" OWNER TO postgres;
-- TOC entry 4996 (class 0 OID 0)
-- Dependencies: 220
-- Name: Traffic inspector_traffic_inspector_personal_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
```

```
inspector".traffic_inspector_personal_code;
-- TOC entry 219 (class 1259 OID 16430)
-- Name: Police department; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Police department" (
  department_code bigint DEFAULT nextval(""Police-schema"."Traffic inspector_traffic_inspector_personal_code_seq"::regclass) NOT NULL,
  department_name character varying(50) NOT NULL,
  adress text NOT NULL,
  department_phone_number bigint NOT NULL,
  CONSTRAINT "Police department_department_code_check" CHECK ((department_code > 0)),
  CONSTRAINT "Police department department phone number check" CHECK ((department phone number > 0))
);
ALTER TABLE "Police-schema". "Police department" OWNER TO postgres;
-- TOC entry 4997 (class 0 OID 0)
-- Dependencies: 219
-- Name: TABLE "Police department"; Type: COMMENT; Schema: Police-schema; Owner: postgres
COMMENT ON TABLE "Police-schema". "Police department" IS 'Information about police department';
-- TOC entry 228 (class 1259 OID 16506)
-- Name: Registred car; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Registred car" (
  car code bigint NOT NULL,
  operation_code bigint NOT NULL,
  driving_licence_number bigint NOT NULL,
  registration_number character(9) NOT NULL,
  registration_date date NOT NULL,
  department_code bigint NOT NULL,
  vehicle_code bigint NOT NULL,
  end_registration_date date NOT NULL,
  CONSTRAINT "Registred car_car_code_check" CHECK ((car_code > 0)),
  CONSTRAINT "Registred car_check" CHECK ((registration_date <= end_registration_date)),
  CONSTRAINT "Registred car_driving_licence_number_check" CHECK ((driving_licence_number > 0)),
  CONSTRAINT "Registred car_operation_code_check" CHECK ((operation_code > 0)),
  CONSTRAINT "Registred car_registration_date_check" CHECK ((registration_date > '1950-01-01'::date)),
  CONSTRAINT "Registred car_registration_number_check" CHECK ((registration_number ~* '[ABEKMHOPCTYXA6EKMHOPCTYX]{1}[0-9]{3}
```

ALTER SEQUENCE "Police-schema". "Traffic inspector traffic inspector personal code seq" OWNED BY "Police-schema". "Traffic

```
[ABEKMHOPCTYXAEEKMHOPCTYX]{2}[0-9]{2,3}'::text))
);
ALTER TABLE "Police-schema". "Registred car" OWNER TO postgres;
-- TOC entry 4998 (class 0 OID 0)
-- Dependencies: 228
-- Name: TABLE "Registred car"; Type: COMMENT; Schema: Police-schema; Owner: postgres
COMMENT ON TABLE "Police-schema". "Registred car" IS 'This table contains info about registred vehicle: country number, date and
department of registration';
-- TOC entry 226 (class 1259 OID 16503)
-- Name: Registred car_car_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Registred car_car_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER SEQUENCE "Police-schema". "Registred car_car_code_seq" OWNER TO postgres;
-- TOC entry 4999 (class 0 OID 0)
-- Dependencies: 226
-- Name: Registred car_car_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER\,SEQUENCE\,"Police-schema"."Registred\,car\_car\_code\_seq"\,OWNED\,BY\,"Police-schema"."Registred\,car".car\_code;\\
-- TOC entry 227 (class 1259 OID 16504)
-- Name: Registred car_operation_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Registred car_operation_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
```

```
ALTER SEQUENCE "Police-schema". "Registred car_operation_code_seq" OWNER TO postgres;
-- TOC entry 5000 (class 0 OID 0)
-- Dependencies: 227
-- Name: Registred car_operation_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER\,SEQUENCE\,"Police-schema". "Registred\,car". operation\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Registred\,car". operation\_code; and the control of the c
-- TOC entry 225 (class 1259 OID 16489)
-- Name: Traffic accident; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Traffic accident" (
     accident_code bigint NOT NULL,
     description text NOT NULL,
     driver_guiltiness text NOT NULL,
     accident_place text NOT
  NULL,
     accident_date timestamp with time zone NOT NULL,
     traffic_inspector_personal_code bigint NOT NULL,
     car_code bigint NOT NULL,
     CONSTRAINT "Traffic accident_accident_code_check" CHECK ((accident_code > 0)),
     CONSTRAINT "Traffic accident_accident_date_check" CHECK ((accident_date > '1950-01-01'::date)),
     CONSTRAINT "Traffic accident_car_code_check" CHECK ((car_code > 0)),
     CONSTRAINT "Traffic accident_traffic_inspector_personal_code_check" CHECK ((traffic_inspector_personal_code > 0))
);
ALTER TABLE "Police-schema". "Traffic accident" OWNER TO postgres;
-- TOC entry 5001 (class 0 OID 0)
-- Dependencies: 225
-- Name: TABLE "Traffic accident"; Type: COMMENT; Schema: Police-schema; Owner: postgres
COMMENT ON TABLE "Police-schema". "Traffic accident" IS 'Info about traffic accidents';
-- TOC entry 223 (class 1259 OID 16487)
-- Name: Traffic accident_accident_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
```

CACHE 1;

```
CREATE SEQUENCE "Police-schema". "Traffic accident_accident_code_seq"
     START WITH 1
     INCREMENT BY 1
     NO MINVALUE
     NO MAXVALUE
     CACHE 1;
ALTER SEQUENCE "Police-schema". "Traffic accident_accident_code_seq" OWNER TO postgres;
-- TOC entry 5002 (class 0 OID 0)
 -- Dependencies: 223
-- Name: Traffic accident_accident_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER SEQUENCE "Police-schema". "Traffic accident_accident_code_seq" OWNED BY "Police-schema". "Traffic accident".accident_code;
-- TOC entry 224 (class 1259 OID 16488)
-- Name: Traffic accident_traffic_inspector_personal_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
 CREATE SEQUENCE "Police-schema". "Traffic accident_traffic_inspector_personal_code_seq"
     START WITH 1
     INCREMENT BY 1
     NO MINVALUE
     NO MAXVALUE
     CACHE 1;
ALTER SEQUENCE "Police-schema". "Traffic accident_traffic_inspector_personal_code_seq" OWNER TO postgres;
-- TOC entry 5003 (class 0 OID 0)
-- Dependencies: 224
 -- Name: Traffic accident_traffic_inspector_personal_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER\,SEQUENCE\,"Police-schema". "Traffic\,accident\_traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic\,accident\_traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic accident\_traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic accident\_traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic accident\_traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic accident\_traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic accident\_traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traffic\_inspector\_personal\_code\_seq"\,\,OWNED\,\,BY\,"Police-schema". "Traf
accident".traffic_inspector_personal_code;
-- TOC entry 221 (class 1259 OID 16451)
-- Name: Traffic inspector_police_department_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
```

```
CREATE SEQUENCE "Police-schema". "Traffic inspector police department code seg"
     START WITH 1
     INCREMENT BY 1
     NO MINVALUE
     NO MAXVALUE
     CACHE 1;
ALTER SEQUENCE "Police-schema". "Traffic inspector_police_department_code_seq" OWNER TO postgres;
-- TOC entry 5004 (class 0 OID 0)
-- Dependencies: 221
 -- Name: Traffic inspector_police_department_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER\,SEQUENCE\,"Police-schema". "Traffic inspector\_police\_department\_code\_seq"\,OWNED\,BY\,"Police-schema". "Traffic inspector\_police\_department\_code\_seq"\,OWNED\,BY\,"Police-schema". "Traffic inspector\_police\_department\_code\_seq"\,OWNED\,BY\,"Police-schema". "Traffic inspector\_police\_department\_code\_seq"\,OWNED\,BY\,"Police-schema". "Traffic inspector\_police\_department\_code\_seq"\,OWNED\,BY\,"Police-schema". "Traffic inspector\_police\_department\_code\_seq". "Traffic inspec
inspector".police_department_code;
-- TOC entry 231 (class 1259 OID 16608)
-- Name: Traffic laws violation; Type: TABLE; Schema: Police-schema; Owner: postgres
 CREATE TABLE "Police-schema". "Traffic laws violation" (
     violation_code bigint NOT NULL,
     violation_place text NOT NULL,
     accident_code bigint,
     car_code bigint NOT NULL,
     registred_violation_code bigint NOT NULL,
     violation_date timestamp with time zone NOT NULL,
     CONSTRAINT "Traffic laws violation_accident_code_check" CHECK ((accident_code > 0)),
     CONSTRAINT "Traffic laws violation_car_code_check" CHECK ((car_code > 0)),
     CONSTRAINT "Traffic laws violation_registred_violation_code_check" CHECK ((registred_violation_code > 0)),
     CONSTRAINT "Traffic laws violation_violation_code_check" CHECK ((violation_code > 0))
);
ALTER TABLE "Police-schema". "Traffic laws violation" OWNER TO postgres;
-- TOC entry 5005 (class 0 OID 0)
 -- Dependencies: 231
 -- Name: TABLE "Traffic laws violation"; Type: COMMENT; Schema: Police-schema; Owner: postgres
```

COMMENT ON TABLE "Police-schema". "Traffic laws violation" IS 'Info about Traffic violation and punishment for them';

```
-- TOC entry 229 (class 1259 OID 16606)
-- Name: Traffic laws violation_accident_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Traffic laws violation_accident_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER SEQUENCE "Police-schema". "Traffic laws violation_accident_code_seq" OWNER TO postgres;
-- TOC entry 5006 (class 0 OID 0)
-- Dependencies: 229
-- Name: Traffic laws violation_accident_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER SEQUENCE "Police-schema". "Traffic laws violation_accident_code_seq" OWNED BY "Police-schema". "Traffic laws
violation".accident_code;
-- TOC entry 230 (class 1259 OID 16607)
-- Name: Traffic laws violation_car_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Traffic laws violation_car_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER SEQUENCE "Police-schema". "Traffic laws violation_car_code_seq" OWNER TO postgres;
-- TOC entry 5007 (class 0 OID 0)
-- Dependencies: 230
-- Name: Traffic laws violation_car_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER SEQUENCE "Police-schema". "Traffic laws violation_car_code_seq" OWNED BY "Police-schema". "Traffic laws violation".car_code;
```

```
-- TOC entry 235 (class 1259 OID 16866)
-- Name: Traffic laws violation_registed_violation_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Traffic laws violation_registed_violation_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER SEQUENCE "Police-schema". "Traffic laws violation_registed_violation_code_seq" OWNER TO postgres;
-- TOC entry 5008 (class 0 OID 0)
-- Dependencies: 235
-- Name: Traffic laws violation_registed_violation_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER SEQUENCE "Police-schema". "Traffic laws violation_registed_violation_code_seq" OWNED BY "Police-schema". "Traffic laws
violation".registred_violation_code;
-- TOC entry 218 (class 1259 OID 16422)
-- Name: Violation manual; Type: TABLE; Schema: Police-schema; Owner: postgres
CREATE TABLE "Police-schema". "Violation manual" (
  violation_code bigint NOT NULL,
  violation_name text NOT NULL,
  punishment character varying(50) NOT NULL,
  violation_class character varying(50) NOT NULL,
  fine_amount double precision NOT NULL,
  CONSTRAINT "Violation manual_violation_code_check" CHECK ((violation_code > 0))
);
ALTER TABLE "Police-schema". "Violation manual" OWNER TO postgres;
-- TOC entry 5009 (class 0 OID 0)
-- Dependencies: 218
-- Name: TABLE "Violation manual"; Type: COMMENT; Schema: Police-schema; Owner: postgres
```

COMMENT ON TABLE "Police-schema". "Violation manual" IS 'Manual contains information about defferent types of violation, their discription and punishment';

```
-- TOC entry 217 (class 1259 OID 16421)
-- Name: Violation manual_violation_code_seq; Type: SEQUENCE; Schema: Police-schema; Owner: postgres
CREATE SEQUENCE "Police-schema". "Violation manual_violation_code_seq"
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER SEQUENCE "Police-schema". "Violation manual_violation_code_seq" OWNER TO postgres;
-- TOC entry 5010 (class 0 OID 0)
-- Dependencies: 217
-- Name: Violation manual_violation_code_seq; Type: SEQUENCE OWNED BY; Schema: Police-schema; Owner: postgres
ALTER SEQUENCE "Police-schema". "Violation manual_violation_code_seq" OWNED BY "Police-schema". "Violation manual".violation_code;
-- TOC entry 4737 (class 2604 OID 16983)
-- Name: Car vehicle_code; Type: DEFAULT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Car" ALTER COLUMN vehicle_code SET DEFAULT nextval(""Police-
schema"."Car_vehicle_code_seq"'::regclass);
-- TOC entry 4735 (class 2604 OID 16984)
-- Name: Registred car car_code; Type: DEFAULT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Registred car" ALTER COLUMN car_code SET DEFAULT nextval(""Police-schema". "Registred
car_car_code_seq"::regclass);
-- TOC entry 4734 (class 2604 OID 16985)
-- Name: Traffic accident accident_code; Type: DEFAULT; Schema: Police-schema; Owner: postgres
```

ALTER TABLE ONLY "Police-schema". "Traffic accident" ALTER COLUMN accident_code SET DEFAULT nextval(""Police-schema". "Traffic

accident_accident_code_seq"'::regclass);

```
-- TOC entry 4733 (class 2604 OID 16986)
-- Name: Traffic inspector traffic_inspector_personal_code; Type: DEFAULT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic inspector" ALTER COLUMN traffic_inspector_personal_code SET DEFAULT nextval(""Police-
schema". "Traffic inspector\_traffic\_inspector\_personal\_code\_seq" :: regclass);
-- TOC entry 4736 (class 2604 OID 16987)
-- Name: Traffic laws violation registred_violation_code; Type: DEFAULT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic laws violation" ALTER COLUMN registred_violation_code SET DEFAULT nextval(""Police-
schema"."Traffic laws violation_registed_violation_code_seq"'::regclass);
-- TOC entry 4731 (class 2604 OID 16988)
-- Name: Violation manual violation_code; Type: DEFAULT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Violation manual" ALTER COLUMN violation_code SET DEFAULT nextval(""Police-schema". "Violation
manual_violation_code_seq"'::regclass);
-- TOC entry 4982 (class 0 OID 16641)
-- Dependencies:
232
-- Data for Name: Car; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Car" (car_brand, year_maden, colour, vehicle_code, vin_number) FROM stdin;
١.
-- TOC entry 4966 (class 0 OID 16412)
-- Dependencies: 216
-- Data for Name: Car owner; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Car owner" (driving_licence_number, full_name, passport_number, phone_number, adress) FROM stdin;
```

```
-- TOC entry 4983 (class 0 OID 16653)
-- Dependencies: 233
-- Data for Name: Car properties; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Car properties" (bodywork_type, engine_type, engine_volume, transmission_type, car_brand) FROM stdin;
-- TOC entry 4969 (class 0 OID 16430)
-- Dependencies: 219
-- Data for Name: Police department; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Police department" (department_code, department_name, adress, department_phone_number) FROM stdin;
1
          erggregrerge
                                gerge
                                          313
2
          eggergregrgreger
                                131
          egrgregreg ggergre
                               1313
-- TOC entry 4978 (class 0 OID 16506)
-- Dependencies: 228
-- Data for Name: Registred car; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Registred car" (car_code, operation_code, driving_licence_number, registration_number, registration_date,
department_code, vehicle_code, end_registration_date) FROM stdin;
١.
-- TOC entry 4975 (class 0 OID 16489)
-- Dependencies: 225
-- Data for Name: Traffic accident; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Traffic accident" (accident_code, description, driver_guiltiness, accident_place, accident_date,
traffic\_inspector\_personal\_code, car\_code) \ FROM \ stdin;
١.
-- TOC entry 4972 (class 0 OID 16452)
-- Dependencies: 222
-- Data for Name: Traffic inspector; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
```

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COPY "Police-schema". "Traffic inspector" (traffic_inspector_personal_code, full_name, phone_number, rank, police_department_code) FROM
stdin;
-- TOC entry 4981 (class 0 OID 16608)
-- Dependencies: 231
-- Data for Name: Traffic laws violation; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Traffic laws violation" (violation_code, violation_place, accident_code, car_code, registred_violation_code,
violation_date) FROM stdin;
-- TOC entry 4968 (class 0 OID 16422)
-- Dependencies: 218
-- Data for Name: Violation manual; Type: TABLE DATA; Schema: Police-schema; Owner: postgres
COPY "Police-schema". "Violation manual" (violation_code, violation_name, punishment, violation_class, fine_amount) FROM stdin;
-- TOC entry 5011 (class 0 OID 0)
-- Dependencies: 234
-- Name: Car_vehicle_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Car_vehicle_code_seq"', 3, true);
-- TOC entry 5012 (class 0 OID 0)
-- Dependencies: 226
-- Name: Registred car_car_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Registred car_car_code_seq"', 2, true);
-- TOC entry 5013 (class 0 OID 0)
-- Dependencies: 227
-- Name: Registred car_operation_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
```

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SELECT pg_catalog.setval(""Police-schema"."Registred car_operation_code_seq"', 2, true);
-- TOC entry 5014 (class 0 OID 0)
-- Dependencies: 223
-- Name: Traffic accident_accident_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Traffic accident_accident_code_seq"', 5, true);
-- TOC entry 5015 (class 0 OID 0)
-- Dependencies: 224
-- Name: Traffic accident_traffic_inspector_personal_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval("Police-schema"."Traffic accident_traffic_inspector_personal_code_seq"', 2, true);
-- TOC entry 5016 (class 0 OID 0)
-- Dependencies: 221
-- Name: Traffic inspector_police_department_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval("Police-schema"."Traffic inspector_police_department_code_seq", 2, true);
-- TOC entry 5017 (class 0 OID 0)
-- Dependencies: 220
-- Name: Traffic inspector_traffic_inspector_personal_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Traffic inspector_traffic_inspector_personal_code_seq"', 9, true);
-- TOC entry 5018 (class 0 OID 0)
-- Dependencies: 229
-- Name: Traffic laws violation_accident_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Traffic laws violation_accident_code_seq"', 1, false);
```

```
-- TOC entry 5019 (class 0 OID 0)
-- Dependencies: 230
-- Name: Traffic laws violation_car_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Traffic laws violation_car_code_seq"', 1, false);
-- TOC entry 5020 (class 0 OID 0)
-- Dependencies: 235
-- Name: Traffic laws violation_registed_violation_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Traffic laws violation_registed_violation_code_seq"', 3, true);
-- TOC entry 5021 (class 0 OID 0)
-- Dependencies: 217
-- Name: Violation manual_violation_code_seq; Type: SEQUENCE SET; Schema: Police-schema; Owner: postgres
SELECT pg_catalog.setval(""Police-schema"."Violation manual_violation_code_seq"', 3, true);
-- TOC entry 4766 (class 2606 OID 16911)
-- Name: Car owner Car owner_driving_licence_number_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Car owner"
  ADD CONSTRAINT "Car owner_driving_licence_number_key" UNIQUE (driving_licence_number);
-- TOC entry 4768 (class 2606 OID 16913)
-- Name: Car owner Car owner_passport_number_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Car owner"
  ADD CONSTRAINT "Car owner_passport_number_key" UNIQUE (passport_number);
-- TOC entry 4770 (class 2606 OID 16915)
-- Name: Car owner Car owner_phone_number_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
```

ALTER TABLE ONLY "Police-schema". "Car owner"

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-- TOC entry 4772 (class 2606 OID 16676)
-- Name: Car owner Car owner_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Car owner"
  ADD CONSTRAINT "Car owner_pkey" PRIMARY KEY (driving_licence_number);
-- TOC entry 4812 (class 2606 OID 17373)
-- Name: Car properties Car properties_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Car properties"
  ADD CONSTRAINT "Car properties_pkey" PRIMARY KEY (car_brand);
-- TOC entry 4808 (class 2606 OID 16824)
-- Name: Car Car_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Car"
  ADD CONSTRAINT "Car_pkey" PRIMARY KEY (vehicle_code);
-- TOC entry 4810 (class 2606 OID 16917)
-- Name: Car Car_vehicle_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Car"
  ADD CONSTRAINT "Car_vehicle_code_key" UNIQUE (vehicle_code);
-- TOC entry 4778 (class 2606 OID 16976)
-- Name: Police department Police department_department_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Police department"
  ADD CONSTRAINT "Police department_department_code_key" UNIQUE (department_code);
-- TOC entry 4780 (class 2606 OID 16901)
```

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-- Name: Police department Police department department phone number key; Type: CONSTRAINT; Schema: Police-schema; Owner:
postgres
ALTER TABLE ONLY "Police-schema". "Police department"
  ADD CONSTRAINT "Police department_department_phone_number_key" UNIQUE (department_phone_number);
-- TOC entry 4782 (class 2606 OID 16458)
-- Name: Police department Police department_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Police department"
  ADD CONSTRAINT "Police department_pkey" PRIMARY KEY (department_code);
-- TOC entry 4794 (class 2606 OID 16921)
-- Name: Registred car Registred car_car_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Registred car"
  ADD CONSTRAINT "Registred car_car_code_key" UNIQUE (car_code);
-- TOC entry 4796 (class 2606 OID 16925)
-- Name: Registred car Registred car_driving_licence_number_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Registred car"
  ADD CONSTRAINT "Registred car_driving_licence_number_key" UNIQUE (driving_licence_number);
-- TOC entry 4798 (class 2606 OID 16923)
-- Name: Registred car Registred car_operation_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Registred car"
  ADD CONSTRAINT "Registred car_operation_code_key" UNIQUE (operation_code);
-- TOC entry 4800 (class 2606 OID 16513)
-- Name: Registred car Registred car_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
```

ALTER TABLE ONLY "Police-schema". "Registred car"

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-- TOC entry 4802 (class 2606 OID 16927)
-- Name: Registred car Registred car_registration_number_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Registred car"
  ADD CONSTRAINT "Registred car_registration_number_key" UNIQUE (registration_number);
TOC entry 4790 (class 2606 OID 16945)
-- Name: Traffic accident Traffic accident_accident_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic accident"
  ADD CONSTRAINT "Traffic accident_accident_code_key" UNIQUE (accident_code);
-- TOC entry 4792 (class 2606 OID 16497)
-- Name: Traffic accident Traffic accident_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic accident"
  ADD CONSTRAINT "Traffic accident_pkey" PRIMARY KEY (accident_code);
-- TOC entry 4784 (class 2606 OID 16953)
-- Name: Traffic inspector Traffic inspector_phone_number_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic inspector"
  ADD CONSTRAINT "Traffic inspector_phone_number_key" UNIQUE (phone_number);
-- TOC entry 4786 (class 2606 OID 16466)
-- Name: Traffic inspector Traffic inspector_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic inspector"
  ADD CONSTRAINT "Traffic inspector_pkey" PRIMARY KEY (traffic_inspector_personal_code);
```

```
-- TOC entry 4788 (class 2606 OID 16951)
-- Name: Traffic inspector Traffic inspector_traffic_inspector_personal_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic inspector"
  ADD CONSTRAINT "Traffic inspector_traffic_inspector_personal_code_key" UNIQUE (traffic_inspector_personal_code);
-- TOC entry 4804 (class 2606 OID 16875)
-- Name: Traffic laws violation Traffic laws violation_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic laws violation"
  ADD CONSTRAINT "Traffic laws violation_pkey" PRIMARY KEY (registred_violation_code);
-- TOC entry 4806 (class 2606 OID 16963)
-- Name: Traffic laws violation Traffic laws violation_registed_violation_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic laws violation"
  ADD CONSTRAINT "Traffic laws violation_registed_violation_code_key" UNIQUE (registred_violation_code);
-- TOC entry 4774 (class 2606 OID 16429)
-- Name: Violation manual Violation manual_pkey; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Violation manual"
  ADD CONSTRAINT "Violation manual_pkey" PRIMARY KEY (violation_code);
-- TOC entry 4776 (class 2606 OID 16668)
-- Name: Violation manual Violation manual_violation_code_key; Type: CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Violation manual"
  ADD\ CONSTRAINT\ "Violation\ manual\_violation\_code\_key"\ UNIQUE\ (violation\_code);
-- TOC entry 4822 (class 2606 OID 17388)
-- Name: Car Car_car_brand_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres
```

ALTER TABLE ONLY "Police-schema". "Car"

ADD CONSTRAINT "Car car brand fkey" FOREIGN KEY (car brand) REFERENCES "Police-schema". "Car properties" (car brand); -- TOC entry 4816 (class 2606 OID 16810) -- Name: Registred car Registred car_department_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres ALTER TABLE ONLY "Police-schema". "Registred car" ADD CONSTRAINT "Registred car_department_code_fkey" FOREIGN KEY (department_code) REFERENCES "Police-schema". "Police department"(department_code); -- TOC entry 4817 (class 2606 OID 16765) -- Name: Registred car Registred car driving licence number fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres ALTER TABLE ONLY "Police-schema". "Registred car" ADD CONSTRAINT "Registred car_driving_licence_number_fkey" FOREIGN KEY (driving_licence_number) REFERENCES "Police-schema"."Car owner"(driving_licence_number); -- TOC entry 4818 (class 2606 OID 17367) -- Name: Registred car Registred car_vehicle_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres ALTER TABLE ONLY "Police-schema". "Registred car" ADD CONSTRAINT "Registred car_vehicle_code_fkey" FOREIGN KEY (vehicle_code) REFERENCES "Police-schema"."Car"(vehicle_code); -- TOC entry 4814 (class 2606 OID 16838) -- Name: Traffic accident Traffic accident_car_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres ALTER TABLE ONLY "Police-schema". "Traffic accident" ADD CONSTRAINT "Traffic accident_car_code_fkey" FOREIGN KEY (car_code) REFERENCES "Police-schema". "Registred car"(car_code); -- TOC entry 4815 (class 2606 OID 16498) -- Name: Traffic accident Traffic accident_traffic_inspector_personal_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres

ALTER TABLE ONLY "Police-schema". "Traffic accident"

ADD CONSTRAINT "Traffic accident_traffic_inspector_personal_code_fkey" FOREIGN KEY (traffic_inspector_personal_code) REFERENCES "Police-schema". "Traffic inspector" (traffic_inspector_personal_code);

TOC entry 4813 (class 2606 OID 16468) Name: Traffic inspector Traffic inspector_police_department_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic inspector" ADD CONSTRAINT "Traffic inspector_police_department_code_fkey" FOREIGN KEY (police_department_code) REFERENCES "Police-schema". "Police department" (department_code);
TOC entry 4819 (class 2606 OID 16617) Name: Traffic laws violation Traffic laws violation_accident_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema"."Traffic laws violation" ADD CONSTRAINT "Traffic laws violation_accident_code_fkey" FOREIGN KEY (accident_code) REFERENCES "Police-schema"."Traffic accident"(accident_code);
TOC entry 4820 (class 2606 OID 16623) Name: Traffic laws violation Traffic laws violation_car_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema". "Traffic laws violation" ADD CONSTRAINT "Traffic laws violation_car_code_fkey" FOREIGN KEY (car_code) REFERENCES "Police-schema". "Registred car" (car_code);
TOC entry 4821 (class 2606 OID 16783) Name: Traffic laws violation Traffic laws violation_violation_code_fkey; Type: FK CONSTRAINT; Schema: Police-schema; Owner: postgres
ALTER TABLE ONLY "Police-schema" "Traffic laws violation"

ADD CONSTRAINT "Traffic laws violation_violation_code_fkey" FOREIGN KEY (violation_code) REFERENCES "Police-schema"."Violation manual"(violation_code);

- -- Completed on 2023-10-28 16:24:39
- -- PostgreSQL database dump complete