**Министерство науки и высшего образования Российской Федерации**

федеральное государственное автономное образовательное учреждение высшего образования

**«НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО»**

**Отчет**

по лабораторной работе №3.2 «Создание таблиц базы данных PostgreSQL. Заполнение таблиц рабочими данными**»**

по дисциплине **«Проектирование и реализация баз данных»**

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Санкт-Петербург 2023

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# Цель работы

# Овладеть практическими навыками создания таблиц базы данных PostgreSQL 1Х, 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  .

1. Восстановить БД.

# Вариант 12. БД «Прокат автомобилей»

**Описание предметной области:**

 Компания предоставляет прокат автомобилей. В пункт проката обращаются клиенты, данные о которых регистрируют в базе. Цена проката зависит от марки автомобиля, технических характеристик и года выпуска.

Для проката авто с клиентом заключается договор, в котором фиксируется период проката, вид страховки, стоимость страховки, залоговая стоимость. Залоговая стоимость возвращается полностью или частично клиенту, в зависимости от страховки, аварий и штрафов. Если залоговая стоимость уже возвращена клиенту, но на авто в компанию пришел штраф, то он оплачивается компанией, а не клиентом.  При передаче авто клиенту составляется акт о передаче автомобиля клиенту. При возвращении автомобиля также составляется акт о передаче авто компании.

Если клиент не вернул автомобиль в срок и не оформил продление, ему назначается штраф за каждый час просрочки.

Постоянным клиентам предоставляются скидки.

В системе необходимо хранить историю нарушений (со штрафами за вид нарушения ПДД) и аварий автомобилей. Нарушение может быть совершено во время аварии. Необходимо хранить информацию, кто оплачивает штраф: компания или клиент.

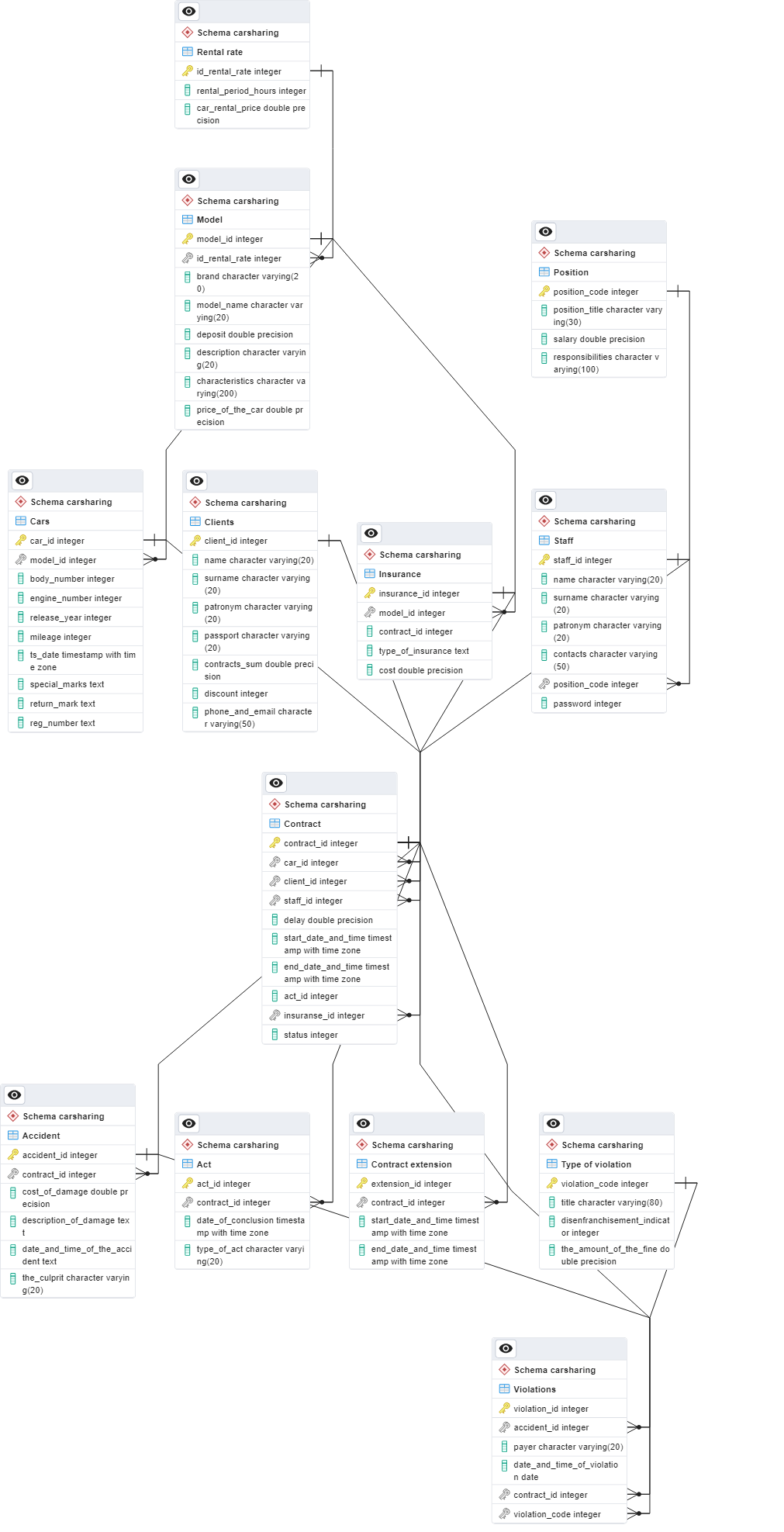
Цены на прокат автомобилей могут меняться.

БД должна содержать следующий минимальный набор сведений: ФИО. Паспортные данные. Код должности. Наименование должности. Оклад. Обязанности. Код марки. Наименование. Технические характеристики. Описание. Код автомобиля. Регистрационный номер. Номер кузова. Номер двигателя.  Год выпуска. Пробег. Цена автомобиля. Цена проката. Дата последнего ТО. Специальные отметки. Отметка о возврате. Код клиента. ФИО. Адрес. Телефон. Паспортные данные. Дата и время выдачи автомобиля. На сколько часов. Дата и время возврата автомобиля. Данные о нарушениях. Данные об авариях. Дата продления. Часов продления.

# Выполнение

Название создаваемой БД – «Каршеринг» («Carsharing»)

Схема логической модели базы данных, сгенерированная в Generate ERD



## Листинг

--

-- PostgreSQL database dump

--

-- Dumped from database version 16.0

-- Dumped by pg\_dump version 16.0

-- Started on 2023-10-23 17:42:20

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 16918)

-- Name: Schema carsharing; Type: SCHEMA; Schema: -; Owner: postgres

--

CREATE SCHEMA "Schema carsharing";

ALTER SCHEMA "Schema carsharing" OWNER TO postgres;

SET default\_tablespace = '';

SET default\_table\_access\_method = heap;

--

-- TOC entry 216 (class 1259 OID 16919)

-- Name: Accident; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Accident" (

accident\_id integer NOT NULL,

contract\_id integer NOT NULL,

cost\_of\_damage double precision NOT NULL,

description\_of\_damage text NOT NULL,

date\_and\_time\_of\_the\_accident text NOT NULL,

the\_culprit character varying(20) NOT NULL

);

ALTER TABLE "Schema carsharing"."Accident" OWNER TO postgres;

--

-- TOC entry 217 (class 1259 OID 16925)

-- Name: Accident\_accident\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Accident" ALTER COLUMN accident\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Accident\_accident\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 218 (class 1259 OID 16926)

-- Name: Act; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Act" (

act\_id integer NOT NULL,

contract\_id integer NOT NULL,

date\_of\_conclusion timestamp with time zone NOT NULL,

type\_of\_act character varying(20) NOT NULL

);

ALTER TABLE "Schema carsharing"."Act" OWNER TO postgres;

--

-- TOC entry 219 (class 1259 OID 16932)

-- Name: Act\_act\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Act" ALTER COLUMN act\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Act\_act\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 220 (class 1259 OID 16933)

-- Name: Cars; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Cars" (

car\_id integer NOT NULL,

model\_id integer NOT NULL,

body\_number integer NOT NULL,

engine\_number integer NOT NULL,

release\_year integer NOT NULL,

mileage integer NOT NULL,

ts\_date timestamp with time zone NOT NULL,

special\_marks text,

return\_mark text NOT NULL,

reg\_number text NOT NULL

);

ALTER TABLE "Schema carsharing"."Cars" OWNER TO postgres;

--

-- TOC entry 221 (class 1259 OID 16938)

-- Name: Cars\_car\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Cars" ALTER COLUMN car\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Cars\_car\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 222 (class 1259 OID 16939)

-- Name: Clients; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Clients" (

client\_id integer NOT NULL,

name character varying(20) NOT NULL,

surname character varying(20) NOT NULL,

patronym character varying(20) NOT NULL,

passport character varying(20) NOT NULL,

contracts\_sum double precision NOT NULL,

discount integer,

phone\_and\_email character varying(50)

);

ALTER TABLE "Schema carsharing"."Clients" OWNER TO postgres;

--

-- TOC entry 223 (class 1259 OID 16949)

-- Name: Clients\_client\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Clients" ALTER COLUMN client\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Clients\_client\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 224 (class 1259 OID 16950)

-- Name: Contract; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Contract" (

contract\_id integer NOT NULL,

car\_id integer NOT NULL,

client\_id integer NOT NULL,

staff\_id integer NOT NULL,

delay double precision NOT NULL,

start\_date\_and\_time timestamp with time zone NOT NULL,

end\_date\_and\_time timestamp with time zone NOT NULL,

act\_id integer NOT NULL,

insuranse\_id integer,

status integer

);

ALTER TABLE "Schema carsharing"."Contract" OWNER TO postgres;

--

-- TOC entry 225 (class 1259 OID 16956)

-- Name: Contract extension; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Contract extension" (

extension\_id integer NOT NULL,

contract\_id integer NOT NULL,

start\_date\_and\_time timestamp with time zone NOT NULL,

end\_date\_and\_time timestamp with time zone NOT NULL

);

ALTER TABLE "Schema carsharing"."Contract extension" OWNER TO postgres;

--

-- TOC entry 226 (class 1259 OID 16959)

-- Name: Contract extension\_extension\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Contract extension" ALTER COLUMN extension\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Contract extension\_extension\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 227 (class 1259 OID 16960)

-- Name: Contract\_contract\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Contract" ALTER COLUMN contract\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Contract\_contract\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 228 (class 1259 OID 16961)

-- Name: Insurance; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Insurance" (

insurance\_id integer NOT NULL,

model\_id integer NOT NULL,

contract\_id integer NOT NULL,

type\_of\_insurance text NOT NULL,

cost double precision NOT NULL

);

ALTER TABLE "Schema carsharing"."Insurance" OWNER TO postgres;

--

-- TOC entry 229 (class 1259 OID 16966)

-- Name: Insurance\_insurance\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Insurance" ALTER COLUMN insurance\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Insurance\_insurance\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 230 (class 1259 OID 16967)

-- Name: Model; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Model" (

model\_id integer NOT NULL,

id\_rental\_rate integer NOT NULL,

brand character varying(20) NOT NULL,

model\_name character varying(20) NOT NULL,

deposit double precision NOT NULL,

description character varying(20) NOT NULL,

characteristics character varying(200) NOT NULL,

price\_of\_the\_car double precision NOT NULL

);

ALTER TABLE "Schema carsharing"."Model" OWNER TO postgres;

--

-- TOC entry 231 (class 1259 OID 16976)

-- Name: Model\_model\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Model" ALTER COLUMN model\_id ADD GENERATED BY DEFAULT AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Model\_model\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 232 (class 1259 OID 16977)

-- Name: Position; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Position" (

position\_code integer NOT NULL,

position\_title character varying(30) NOT NULL,

salary double precision NOT NULL,

responsibilities character varying(100) NOT NULL

);

ALTER TABLE "Schema carsharing"."Position" OWNER TO postgres;

--

-- TOC entry 233 (class 1259 OID 16984)

-- Name: Position\_position\_code\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Position" ALTER COLUMN position\_code ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Position\_position\_code\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 234 (class 1259 OID 16985)

-- Name: Rental rate; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Rental rate" (

id\_rental\_rate integer NOT NULL,

rental\_period\_hours integer NOT NULL,

car\_rental\_price double precision NOT NULL

);

ALTER TABLE "Schema carsharing"."Rental rate" OWNER TO postgres;

--

-- TOC entry 235 (class 1259 OID 16988)

-- Name: Rental rate\_id\_rental\_rate\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Rental rate" ALTER COLUMN id\_rental\_rate ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Rental rate\_id\_rental\_rate\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 236 (class 1259 OID 16989)

-- Name: Staff; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Staff" (

staff\_id integer NOT NULL,

name character varying(20) NOT NULL,

surname character varying(20) NOT NULL,

patronym character varying(20) NOT NULL,

contacts character varying(50) NOT NULL,

position\_code integer NOT NULL,

password integer

);

ALTER TABLE "Schema carsharing"."Staff" OWNER TO postgres;

--

-- TOC entry 237 (class 1259 OID 16998)

-- Name: Staff\_staff\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Staff" ALTER COLUMN staff\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Staff\_staff\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 238 (class 1259 OID 16999)

-- Name: Type of violation; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Type of violation" (

violation\_code integer NOT NULL,

title character varying(80) NOT NULL,

disenfranchisement\_indicator integer NOT NULL,

the\_amount\_of\_the\_fine double precision NOT NULL

);

ALTER TABLE "Schema carsharing"."Type of violation" OWNER TO postgres;

--

-- TOC entry 239 (class 1259 OID 17005)

-- Name: Type of violation\_violation\_code\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Type of violation" ALTER COLUMN violation\_code ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Type of violation\_violation\_code\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 240 (class 1259 OID 17006)

-- Name: Violations; Type: TABLE; Schema: Schema carsharing; Owner: postgres

--

CREATE TABLE "Schema carsharing"."Violations" (

violation\_id integer NOT NULL,

accident\_id integer NOT NULL,

payer character varying(20) NOT NULL,

date\_and\_time\_of\_violation date NOT NULL,

contract\_id integer NOT NULL,

violation\_code integer NOT NULL

);

ALTER TABLE "Schema carsharing"."Violations" OWNER TO postgres;

--

-- TOC entry 241 (class 1259 OID 17012)

-- Name: Violations\_violation\_id\_seq; Type: SEQUENCE; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Violations" ALTER COLUMN violation\_id ADD GENERATED ALWAYS AS IDENTITY (

SEQUENCE NAME "Schema carsharing"."Violations\_violation\_id\_seq"

START WITH 1

INCREMENT BY 1

NO MINVALUE

NO MAXVALUE

CACHE 1

);

--

-- TOC entry 4934 (class 0 OID 16919)

-- Dependencies: 216

-- Data for Name: Accident; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Accident" (accident\_id, contract\_id, cost\_of\_damage, description\_of\_damage, date\_and\_time\_of\_the\_accident, the\_culprit) FROM stdin;

1 1 5000 Minor scratch on the rear bumper 2023-10-05 09:15:00 Unknown

2 2 8000 Dent on the front left fender 2023-11-12 15:30:00 John Doe

3 3 15000 Significant damage to the driver-side door 2024-01-20 14:45:00 Alice Smith

4 4 3500 Scratch on the rear left side panel 2024-04-18 10:20:00 Unknown

5 5 2000 Minor dent on the trunk 2024-07-24 13:10:00 Bob Johnson

6 6 12000 Front-end collision, extensive damage 2023-12-07 16:55:00 Emily Brown

7 7 6500 Dent on the rear right side panel 2024-03-15 08:45:00 Unknown

8 8 3000 Scratch on the rear bumper 2023-10-28 11:40:00 David Wilson

9 9 7500 Major damage to the front right side 2024-02-25 17:25:00 Sophia Davis

10 10 9500 Damage to the windshield and roof 2024-05-30 12:30:00 Linda Martinez

11 1 4500 Scratch on the driver-side door 2023-10-15 14:55:00 Unknown

12 2 11000 Major damage to the rear bumper 2023-11-20 10:10:00 Chris Johnson

13 3 4000 Minor dent on the rear right fender 2024-01-22 09:30:00 Unknown

14 4 9500 Rear-end collision, significant damage 2024-04-28 15:15:00 James White

15 5 1800 Scratch on the front left fender 2024-07-28 14:20:00 Unknown

16 6 22000 Extensive damage to the front and rear 2023-12-10 08:10:00 Emma Turner

17 7 3000 Scratch on the rear bumper 2024-03-18 16:40:00 Unknown

18 8 5500 Dent on the rear left side panel 2023-10-31 11:25:00 Oliver Parker

19 9 6500 Dent on the front right fender 2024-03-05 12:15:00 Unknown

20 10 16000 Front-end collision, extensive damage 2024-06-05 13:35:00 Ella Wilson

\.

--

-- TOC entry 4936 (class 0 OID 16926)

-- Dependencies: 218

-- Data for Name: Act; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Act" (act\_id, contract\_id, date\_of\_conclusion, type\_of\_act) FROM stdin;

1 1 2023-10-01 00:00:00+03 lease start

2 2 2023-11-05 00:00:00+03 lease start

3 3 2024-01-02 00:00:00+03 lease start

4 4 2024-04-03 00:00:00+03 lease start

5 5 2024-07-06 00:00:00+03 lease start

6 6 2023-12-15 00:00:00+03 lease start

7 7 2024-03-10 00:00:00+03 lease start

8 8 2023-10-21 00:00:00+03 lease start

9 9 2024-02-20 00:00:00+03 lease start

10 10 2024-05-18 00:00:00+03 lease start

11 1 2023-10-10 00:00:00+03 lease end

12 2 2023-11-15 00:00:00+03 lease end

13 3 2024-01-12 00:00:00+03 lease end

14 4 2024-04-13 00:00:00+03 lease end

15 5 2024-07-16 00:00:00+03 lease end

16 6 2023-12-25 00:00:00+03 lease end

17 7 2024-03-20 00:00:00+03 lease end

18 8 2023-10-31 00:00:00+03 lease end

19 9 2024-02-29 00:00:00+03 lease end

20 10 2024-05-28 00:00:00+03 lease end

\.

--

-- TOC entry 4938 (class 0 OID 16933)

-- Dependencies: 220

-- Data for Name: Cars; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Cars" (car\_id, model\_id, body\_number, engine\_number, release\_year, mileage, ts\_date, special\_marks, return\_mark, reg\_number) FROM stdin;

1 1 12345 67890 2020 15000 2023-01-15 00:00:00+03 None Good ABC123

2 2 54321 9876 2019 20000 2023-02-10 00:00:00+03 Scratch on the door Good XYZ789

3 3 67890 54321 2022 8000 2023-03-05 00:00:00+03 None Excellent LMN456

4 4 45678 12345 2021 30000 2023-04-20 00:00:00+03 Dent on the hood Good DEF789

5 5 90123 34567 2018 35000 2023-05-25 00:00:00+03 None Fair PQR123

6 6 23456 78901 2023 1000 2023-06-30 00:00:00+03 None Excellent GHI234

7 7 56789 23456 2017 42000 2023-07-12 00:00:00+03 Scratch on the bumper Good JKL567

8 8 78901 45678 2020 18000 2023-08-18 00:00:00+03 None Good UVW901

9 9 1234 90123 2022 9000 2023-09-22 00:00:00+03 None Excellent MNO890

10 10 34567 56789 2019 25000 2023-10-09 00:00:00+03 Dent on the side Good RST345

11 11 89012 67890 2021 28000 2023-11-14 00:00:00+03 None Good CDE456

12 12 45678 78901 2023 500 2023-12-02 00:00:00+03 None Excellent EFG678

13 13 12345 23456 2018 32000 2024-01-03 00:00:00+03 Scratch on the roof Good OPQ901

14 14 67890 90123 2020 14000 2024-02-28 00:00:00+03 None Fair HIJ234

15 15 54321 34567 2017 38000 2024-03-15 00:00:00+03 Dent on the trunk Good KLM789

16 16 1234 78901 2022 7500 2024-04-09 00:00:00+03 None Excellent TUV567

17 17 23456 56789 2019 22000 2024-05-22 00:00:00+03 Scratch on the fender Good XYZ123

18 18 90123 45678 2021 27000 2024-06-10 00:00:00+03 None Good ABC901

19 19 78901 67890 2023 800 2024-07-07 00:00:00+03 None Excellent MNO345

20 20 34567 12345 2020 16000 2024-08-20 00:00:00+03 None Good PQR678

\.

--

-- TOC entry 4940 (class 0 OID 16939)

-- Dependencies: 222

-- Data for Name: Clients; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Clients" (client\_id, name, surname, patronym, passport, contracts\_sum, discount, phone\_and\_email) FROM stdin;

1 Daria Ivanova Vladimirovna 4218 167234 400 0 8 981 567 15 76, DariaIvanova@gmail.com

2 Irina Vasilieva Antonovna 4218 538012 20000 40 8 981 193 93 62, Irina1999@gmail.com

3 Oleg Matveev Sergeevich 4218 539201 100 0 8 981 638 22 09, Matveev2003@gmail.com

4 Roman Sergeev Alexandrovich 4218 243540 9000 30 8 981 193 93 62, RomanSergeev@gmail.com

5 Irina Akimova Romanovna 4218 538012 7000 30 8 981 193 93 62, Irina1999@gmail.com

6 Polina Mihailovna Valerievna 4218 538012 10000 35 8 981 193 93 62, Pln1425@gmail.com

7 Alisa Kustova Maximovna 4218 569032 4000 20 8 981 193 93 62, Kustova1999@gmail.com

8 Nikita Lebedev Borisovich 4117 538012 5500 25 8 981 122 56 55, NikitaLebedev@gmail.com

9 Alina Evseeva Artemovna 4218 241594 500 10 8 981 193 93 62, Irina1999@gmail.com

10 Maxim Stepanov Igorevich 4218 647392 5000 30 8 981 463 09 17, MaximStepanov@gmail.com

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--

-- TOC entry 4942 (class 0 OID 16950)

-- Dependencies: 224

-- Data for Name: Contract; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Contract" (contract\_id, car\_id, client\_id, staff\_id, delay, start\_date\_and\_time, end\_date\_and\_time, act\_id, insuranse\_id, status) FROM stdin;

1 1 1 1 0 2023-10-01 08:00:00+03 2023-10-10 16:00:00+03 1 \N \N

2 2 2 2 0 2023-11-05 10:00:00+03 2023-11-15 18:00:00+03 2 \N \N

3 3 3 3 0 2024-01-02 14:00:00+03 2024-01-12 22:00:00+03 3 \N \N

4 4 4 4 0 2024-04-03 12:00:00+03 2024-04-13 20:00:00+03 4 \N \N

5 5 5 5 0 2024-07-06 08:00:00+03 2024-07-16 16:00:00+03 5 \N \N

6 6 6 6 0 2023-12-15 10:00:00+03 2023-12-25 18:00:00+03 6 \N \N

7 7 7 7 0 2024-03-10 14:00:00+03 2024-03-20 22:00:00+03 7 \N \N

8 8 8 8 0 2023-10-21 12:00:00+03 2023-10-31 20:00:00+03 8 \N \N

9 9 9 9 0 2024-02-20 08:00:00+03 2024-02-29 16:00:00+03 9 \N \N

10 10 10 10 0 2024-05-18 10:00:00+03 2024-05-28 18:00:00+03 10 \N \N

11 1 2 3 0 2023-11-01 14:00:00+03 2023-11-10 22:00:00+03 11 \N \N

12 2 3 4 0 2023-12-02 12:00:00+03 2023-12-12 20:00:00+03 12 \N \N

13 3 4 5 0 2024-02-05 08:00:00+03 2024-02-15 16:00:00+03 13 \N \N

14 4 5 6 0 2024-03-10 10:00:00+03 2024-03-20 18:00:00+03 14 \N \N

15 5 6 7 0 2023-12-25 14:00:00+03 2024-01-04 22:00:00+03 15 \N \N

16 6 7 8 0 2024-01-15 12:00:00+03 2024-01-25 20:00:00+03 16 \N \N

17 7 8 9 0 2024-04-14 08:00:00+03 2024-04-24 16:00:00+03 17 \N \N

18 8 9 10 0 2024-05-20 10:00:00+03 2024-05-30 18:00:00+03 18 \N \N

19 9 10 1 0 2024-03-25 14:00:00+03 2024-04-04 22:00:00+03 19 \N \N

20 10 1 2 0 2024-02-15 12:00:00+03 2024-02-25 20:00:00+03 20 \N \N

\.

--

-- TOC entry 4943 (class 0 OID 16956)

-- Dependencies: 225

-- Data for Name: Contract extension; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Contract extension" (extension\_id, contract\_id, start\_date\_and\_time, end\_date\_and\_time) FROM stdin;

1 1 2023-11-01 12:00:00+03 2023-11-08 12:00:00+03

2 2 2023-12-05 10:00:00+03 2023-12-12 10:00:00+03

3 3 2024-02-01 14:00:00+03 2024-02-08 14:00:00+03

4 4 2024-05-15 08:00:00+03 2024-05-22 08:00:00+03

5 5 2024-08-10 09:00:00+03 2024-08-17 09:00:00+03

6 6 2023-12-25 15:00:00+03 2024-01-01 15:00:00+03

7 7 2024-04-05 13:00:00+03 2024-04-12 13:00:00+03

8 8 2023-11-21 11:00:00+03 2023-11-28 11:00:00+03

9 9 2024-03-01 09:00:00+03 2024-03-08 09:00:00+03

10 10 2024-06-05 14:00:00+03 2024-06-12 14:00:00+03

11 1 2023-11-08 12:00:00+03 2023-11-15 12:00:00+03

12 2 2023-12-12 10:00:00+03 2023-12-19 10:00:00+03

13 3 2024-02-08 14:00:00+03 2024-02-15 14:00:00+03

14 4 2024-05-22 08:00:00+03 2024-05-29 08:00:00+03

15 5 2024-08-17 09:00:00+03 2024-08-24 09:00:00+03

16 6 2024-01-01 15:00:00+03 2024-01-08 15:00:00+03

17 7 2024-04-12 13:00:00+03 2024-04-19 13:00:00+03

18 8 2023-11-28 11:00:00+03 2023-12-05 11:00:00+03

19 9 2024-03-08 09:00:00+03 2024-03-15 09:00:00+03

20 10 2024-06-12 14:00:00+03 2024-06-19 14:00:00+03

\.

--

-- TOC entry 4946 (class 0 OID 16961)

-- Dependencies: 228

-- Data for Name: Insurance; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Insurance" (insurance\_id, model\_id, contract\_id, type\_of\_insurance, cost) FROM stdin;

1 1 1 Comprehensive 5000

2 2 2 Liability 8000

3 3 3 Comprehensive 15000

4 4 4 Liability 3500

5 5 5 Comprehensive 2000

6 6 6 Liability 12000

7 7 7 Comprehensive 6500

8 8 8 Liability 3000

9 9 9 Comprehensive 7500

10 10 10 Liability 9500

11 1 11 Comprehensive 4500

12 2 12 Liability 11000

13 3 13 Comprehensive 4000

14 4 14 Liability 9500

15 5 15 Comprehensive 1800

16 6 16 Liability 22000

17 7 17 Comprehensive 3000

18 8 18 Liability 5500

19 9 19 Comprehensive 6500

20 10 20 Liability 16000

\.

--

-- TOC entry 4948 (class 0 OID 16967)

-- Dependencies: 230

-- Data for Name: Model; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Model" (model\_id, id\_rental\_rate, brand, model\_name, deposit, description, characteristics, price\_of\_the\_car) FROM stdin;

1 1 Toyota Camry 500 Midsize sedan 4-door, 2.5L engine, automatic transmission 25000

2 2 Honda Civic 400 Compact car 4-door, 1.8L engine, manual transmission 22000

3 7 Ford Escape 600 Compact SUV 4-door, 2.0L engine, automatic transmission 28000

4 12 Nissan Altima 550 Midsize sedan 4-door, 2.5L engine, automatic transmission 26000

5 11 Chevrolet Cruze 450 Compact car 4-door, 1.4L engine, automatic transmission 21000

6 4 Jeep Wrangler 700 Off-road SUV 2-door, 3.6L engine, manual transmission 32000

7 17 Hyundai Elantra 400 Compact car 4-door, 2.0L engine, automatic transmission 20000

8 3 Subaru Outback 650 Midsize SUV 4-door, 2.5L engine, automatic transmission 30000

9 18 Volkswagen Jetta 450 Compact car 4-door, 1.4L engine, automatic transmission 22000

10 15 BMW 3 Series 800 Luxury sedan 4-door, 2.0L engine, automatic transmission 40000

11 10 Audi Q5 750 Luxury SUV 4-door, 2.0L engine, automatic transmission 45000

12 5 Mercedes-Benz C-Class 800 Luxury sedan 4-door, 2.0L engine, automatic transmission 42000

13 6 Kia Sportage 550 Compact SUV 4-door, 2.4L engine, automatic transmission 26000

14 13 Ford F-150 1000 Full-size pickup 2-door, 5.0L engine, automatic transmission 35000

15 19 Mazda Mazda3 400 Compact car 4-door, 2.0L engine, manual transmission 22000

16 20 Lexus RX 750 Luxury SUV 4-door, 3.5L engine, automatic transmission 50000

17 8 Acura MDX 700 Luxury SUV 4-door, 3.5L engine, automatic transmission 48000

18 14 Chevrolet Silverado 1000 Full-size pickup 2-door, 5.3L engine, automatic transmission 37000

19 16 Volvo XC60 650 Midsize SUV 4-door, 2.0L engine, automatic transmission 32000

20 9 Mitsubishi Outlander 550 Compact SUV 4-door, 2.4L engine, automatic transmission 25000

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--

-- TOC entry 4950 (class 0 OID 16977)

-- Dependencies: 232

-- Data for Name: Position; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Position" (position\_code, position\_title, salary, responsibilities) FROM stdin;

1 Head of Transport 200000 Cars Allocation

2 Head of Development 400000 The running of an IT

3 CEO 400000 Commercial director

4 PR manager 300000 Marketing and advertisment

5 Tech Supervisor 200000 Mechanical support and park renewing

6 HR Superviser 300000 Human resources managing and hiring

7 Call Center Manager 50000 User guidance and feedback receiving by phone

8 Support manager 70000 User guidance and feedback receiving by app or website

9 Mechanic 50000 Cars repairing

10 B2B Director 250000 Bussiness sales running

11 Lawyer 150000 Consulting and documents creating

\.

--

-- TOC entry 4952 (class 0 OID 16985)

-- Dependencies: 234

-- Data for Name: Rental rate; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Rental rate" (id\_rental\_rate, rental\_period\_hours, car\_rental\_price) FROM stdin;

1 1 1500

2 2 1200

3 5 1000

4 12 1300

5 24 1800

6 1 1300

7 2 1100

8 5 1400

9 12 1700

10 24 1900

11 1 1400

12 2 1500

13 5 1600

14 12 1900

15 24 2000

16 1 1200

17 2 1600

18 5 1100

19 12 1500

20 24 1700

\.

--

-- TOC entry 4954 (class 0 OID 16989)

-- Dependencies: 236

-- Data for Name: Staff; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Staff" (staff\_id, name, surname, patronym, contacts, position\_code, password) FROM stdin;

1 John Doe Smith john.doe@example.com 1 \N

2 Alice Johnson Williams alice.johnson@example.com 2 \N

3 Bob Brown Davis bob.brown@example.com 3 \N

4 Catherine Miller Jones catherine.miller@example.com 4 \N

5 David Taylor Wilson david.taylor@example.com 5 \N

6 Ella Martinez Clark ella.martinez@example.com 6 \N

7 Frank Harris Allen frank.harris@example.com 7 \N

8 Grace Lee Parker grace.lee@example.com 8 \N

9 Harry White Moore harry.white@example.com 9 \N

10 Isabel Anderson Young isabel.anderson@example.com 10 \N

11 James Thompson Hall james.thompson@example.com 11 \N

\.

--

-- TOC entry 4956 (class 0 OID 16999)

-- Dependencies: 238

-- Data for Name: Type of violation; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Type of violation" (violation\_code, title, disenfranchisement\_indicator, the\_amount\_of\_the\_fine) FROM stdin;

1 Speeding (Exceeding the speed limit) 1 10000

2 Running a red light 1 10000

3 Driving without a valid driver's license 1 10000

4 Not wearing a seatbelt 1 1000

5 Using a mobile phone while driving (without hands-free) 1 3000

6 Overtaking in a no-passing zone 1 5000

7 Driving under the influence of alcohol or drugs 1 20000

8 Failing to yield the right of way 1 7000

9 Illegal parking 0 1000

10 Ignoring a stop sign 1 5000

11 Not using turn signals when changing lanes 0 1000

12 Driving without insurance 1 10000

13 Not stopping for pedestrians at a crosswalk 1 5000

14 Reckless driving 1 10000

15 Failing to use headlights at night 1 2000

16 Blocking a fire hydrant 1 5000

17 Driving on the wrong side of the road 1 5000

18 Making an illegal U-turn 1 3000

19 Disobeying traffic signs and signals 1 7000

20 Driving without proper registration 1 5000

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--

-- TOC entry 4958 (class 0 OID 17006)

-- Dependencies: 240

-- Data for Name: Violations; Type: TABLE DATA; Schema: Schema carsharing; Owner: postgres

--

COPY "Schema carsharing"."Violations" (violation\_id, accident\_id, payer, date\_and\_time\_of\_violation, contract\_id, violation\_code) FROM stdin;

1 1 Daria Ivanova 2023-10-05 1 1

2 2 Irina Vasilieva 2023-11-12 2 2

3 3 Oleg Matveev 2024-01-20 3 3

4 4 Roman Sergeev 2024-04-18 4 4

5 5 Irina Akimova 2024-07-24 5 1

6 6 Polina Mihailovna 2023-12-07 6 2

7 7 Alisa Kustova 2024-03-15 7 3

8 8 Nikita Lebedev 2023-10-28 8 4

9 9 Alina Evseeva 2024-02-25 9 1

10 10 Maxim Stepanov 2024-05-30 10 2

11 1 Daria Ivanova 2023-10-15 1 3

12 2 Irina Vasilieva 2023-11-20 2 4

13 3 Oleg Matveev 2024-01-22 3 1

14 4 Roman Sergeev 2024-04-28 4 2

15 5 Irina Akimova 2024-07-28 5 3

16 6 Polina Mihailovna 2023-12-10 6 4

17 7 Alisa Kustova 2024-03-18 7 1

18 8 Nikita Lebedev 2023-10-31 8 2

19 9 Alina Evseeva 2024-03-05 9 3

20 10 Maxim Stepanov 2024-06-05 10 4

\.

--

-- TOC entry 4965 (class 0 OID 0)

-- Dependencies: 217

-- Name: Accident\_accident\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Accident\_accident\_id\_seq"', 20, true);

--

-- TOC entry 4966 (class 0 OID 0)

-- Dependencies: 219

-- Name: Act\_act\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Act\_act\_id\_seq"', 20, true);

--

-- TOC entry 4967 (class 0 OID 0)

-- Dependencies: 221

-- Name: Cars\_car\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Cars\_car\_id\_seq"', 20, true);

--

-- TOC entry 4968 (class 0 OID 0)

-- Dependencies: 223

-- Name: Clients\_client\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Clients\_client\_id\_seq"', 10, true);

--

-- TOC entry 4969 (class 0 OID 0)

-- Dependencies: 226

-- Name: Contract extension\_extension\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Contract extension\_extension\_id\_seq"', 20, true);

--

-- TOC entry 4970 (class 0 OID 0)

-- Dependencies: 227

-- Name: Contract\_contract\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Contract\_contract\_id\_seq"', 20, true);

--

-- TOC entry 4971 (class 0 OID 0)

-- Dependencies: 229

-- Name: Insurance\_insurance\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Insurance\_insurance\_id\_seq"', 20, true);

--

-- TOC entry 4972 (class 0 OID 0)

-- Dependencies: 231

-- Name: Model\_model\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Model\_model\_id\_seq"', 20, true);

--

-- TOC entry 4973 (class 0 OID 0)

-- Dependencies: 233

-- Name: Position\_position\_code\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Position\_position\_code\_seq"', 11, true);

--

-- TOC entry 4974 (class 0 OID 0)

-- Dependencies: 235

-- Name: Rental rate\_id\_rental\_rate\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Rental rate\_id\_rental\_rate\_seq"', 20, true);

--

-- TOC entry 4975 (class 0 OID 0)

-- Dependencies: 237

-- Name: Staff\_staff\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Staff\_staff\_id\_seq"', 11, true);

--

-- TOC entry 4976 (class 0 OID 0)

-- Dependencies: 239

-- Name: Type of violation\_violation\_code\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Type of violation\_violation\_code\_seq"', 20, true);

--

-- TOC entry 4977 (class 0 OID 0)

-- Dependencies: 241

-- Name: Violations\_violation\_id\_seq; Type: SEQUENCE SET; Schema: Schema carsharing; Owner: postgres

--

SELECT pg\_catalog.setval('"Schema carsharing"."Violations\_violation\_id\_seq"', 20, true);

--

-- TOC entry 4752 (class 2606 OID 17014)

-- Name: Accident Accident\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Accident"

ADD CONSTRAINT "Accident\_pkey" PRIMARY KEY (accident\_id);

--

-- TOC entry 4754 (class 2606 OID 17016)

-- Name: Act Act\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Act"

ADD CONSTRAINT "Act\_pkey" PRIMARY KEY (act\_id);

--

-- TOC entry 4756 (class 2606 OID 17018)

-- Name: Cars Cars\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Cars"

ADD CONSTRAINT "Cars\_pkey" PRIMARY KEY (car\_id);

--

-- TOC entry 4758 (class 2606 OID 17020)

-- Name: Clients Clients\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Clients"

ADD CONSTRAINT "Clients\_pkey" PRIMARY KEY (client\_id);

--

-- TOC entry 4762 (class 2606 OID 17022)

-- Name: Contract extension Contract extension\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Contract extension"

ADD CONSTRAINT "Contract extension\_pkey" PRIMARY KEY (extension\_id);

--

-- TOC entry 4764 (class 2606 OID 17024)

-- Name: Insurance Insurance\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Insurance"

ADD CONSTRAINT "Insurance\_pkey" PRIMARY KEY (insurance\_id);

--

-- TOC entry 4766 (class 2606 OID 17026)

-- Name: Model Model\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Model"

ADD CONSTRAINT "Model\_pkey" PRIMARY KEY (model\_id);

--

-- TOC entry 4770 (class 2606 OID 17028)

-- Name: Rental rate Rental rate\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Rental rate"

ADD CONSTRAINT "Rental rate\_pkey" PRIMARY KEY (id\_rental\_rate);

--

-- TOC entry 4772 (class 2606 OID 17030)

-- Name: Staff Staff\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Staff"

ADD CONSTRAINT "Staff\_pkey" PRIMARY KEY (staff\_id);

--

-- TOC entry 4774 (class 2606 OID 17032)

-- Name: Type of violation Type of violation\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Type of violation"

ADD CONSTRAINT "Type of violation\_pkey" PRIMARY KEY (violation\_code);

--

-- TOC entry 4776 (class 2606 OID 17034)

-- Name: Violations Violations\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Violations"

ADD CONSTRAINT "Violations\_pkey" PRIMARY KEY (violation\_id);

--

-- TOC entry 4749 (class 2606 OID 17289)

-- Name: Contract check\_date; Type: CHECK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Contract"

ADD CONSTRAINT check\_date CHECK ((start\_date\_and\_time < end\_date\_and\_time)) NOT VALID;

--

-- TOC entry 4750 (class 2606 OID 17288)

-- Name: Contract check\_status; Type: CHECK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE "Schema carsharing"."Contract"

ADD CONSTRAINT check\_status CHECK (((status >= 0) AND (status <= 1))) NOT VALID;

--

-- TOC entry 4760 (class 2606 OID 17036)

-- Name: Contract contract\_id\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Contract"

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

--

-- TOC entry 4768 (class 2606 OID 17038)

-- Name: Position position\_pkey; Type: CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Position"

ADD CONSTRAINT position\_pkey PRIMARY KEY (position\_code);

--

-- TOC entry 4777 (class 2606 OID 17039)

-- Name: Accident Accident\_contract\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Accident"

ADD CONSTRAINT "Accident\_contract\_id\_fkey" FOREIGN KEY (contract\_id) REFERENCES "Schema carsharing"."Contract"(contract\_id);

--

-- TOC entry 4778 (class 2606 OID 17044)

-- Name: Act Act\_contract\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Act"

ADD CONSTRAINT "Act\_contract\_id\_fkey" FOREIGN KEY (contract\_id) REFERENCES "Schema carsharing"."Contract"(contract\_id);

--

-- TOC entry 4779 (class 2606 OID 17049)

-- Name: Cars Cars\_model\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Cars"

ADD CONSTRAINT "Cars\_model\_id\_fkey" FOREIGN KEY (model\_id) REFERENCES "Schema carsharing"."Model"(model\_id);

--

-- TOC entry 4784 (class 2606 OID 17054)

-- Name: Contract extension Contract extension\_contract\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Contract extension"

ADD CONSTRAINT "Contract extension\_contract\_id\_fkey" FOREIGN KEY (contract\_id) REFERENCES "Schema carsharing"."Contract"(contract\_id);

--

-- TOC entry 4780 (class 2606 OID 17059)

-- Name: Contract Contract\_car\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Contract"

ADD CONSTRAINT "Contract\_car\_id\_fkey" FOREIGN KEY (car\_id) REFERENCES "Schema carsharing"."Cars"(car\_id);

--

-- TOC entry 4781 (class 2606 OID 17064)

-- Name: Contract Contract\_client\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Contract"

ADD CONSTRAINT "Contract\_client\_id\_fkey" FOREIGN KEY (client\_id) REFERENCES "Schema carsharing"."Clients"(client\_id);

--

-- TOC entry 4782 (class 2606 OID 17235)

-- Name: Contract Contract\_insuranse\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Contract"

ADD CONSTRAINT "Contract\_insuranse\_id\_fkey" FOREIGN KEY (insuranse\_id) REFERENCES "Schema carsharing"."Insurance"(insurance\_id) NOT VALID;

--

-- TOC entry 4783 (class 2606 OID 17069)

-- Name: Contract Contract\_staff\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Contract"

ADD CONSTRAINT "Contract\_staff\_id\_fkey" FOREIGN KEY (staff\_id) REFERENCES "Schema carsharing"."Staff"(staff\_id);

--

-- TOC entry 4785 (class 2606 OID 17079)

-- Name: Insurance Insurance\_model\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Insurance"

ADD CONSTRAINT "Insurance\_model\_id\_fkey" FOREIGN KEY (model\_id) REFERENCES "Schema carsharing"."Model"(model\_id);

--

-- TOC entry 4786 (class 2606 OID 17084)

-- Name: Model Model\_id\_rental\_rate\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Model"

ADD CONSTRAINT "Model\_id\_rental\_rate\_fkey" FOREIGN KEY (id\_rental\_rate) REFERENCES "Schema carsharing"."Rental rate"(id\_rental\_rate);

--

-- TOC entry 4787 (class 2606 OID 17089)

-- Name: Staff Staff\_position\_code\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Staff"

ADD CONSTRAINT "Staff\_position\_code\_fkey" FOREIGN KEY (position\_code) REFERENCES "Schema carsharing"."Position"(position\_code);

--

-- TOC entry 4788 (class 2606 OID 17094)

-- Name: Violations Violations\_accident\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Violations"

ADD CONSTRAINT "Violations\_accident\_id\_fkey" FOREIGN KEY (accident\_id) REFERENCES "Schema carsharing"."Accident"(accident\_id);

--

-- TOC entry 4789 (class 2606 OID 17099)

-- Name: Violations Violations\_contract\_id\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Violations"

ADD CONSTRAINT "Violations\_contract\_id\_fkey" FOREIGN KEY (contract\_id) REFERENCES "Schema carsharing"."Contract"(contract\_id);

--

-- TOC entry 4790 (class 2606 OID 17104)

-- Name: Violations Violations\_violation\_code\_fkey; Type: FK CONSTRAINT; Schema: Schema carsharing; Owner: postgres

--

ALTER TABLE ONLY "Schema carsharing"."Violations"

ADD CONSTRAINT "Violations\_violation\_code\_fkey" FOREIGN KEY (violation\_code) REFERENCES "Schema carsharing"."Type of violation"(violation\_code);

-- Completed on 2023-10-23 17:42:21

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-- PostgreSQL database dump complete

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# Вывод

В данной лабораторной работе мы создали базу данных с использованием pgAdmin 4 (согласно индивидуальному заданию “Каршеринг”). В базе данных были созданы схема и таблицы, установлены ограничения на данные: Primary Key, Unique, Check, Foreign Key. БД была заполнена рабочими данными с помощью запросов к базе. Была создана резервная копия БД, также БД была восстановлена