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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Оглавление

Цель работы

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

Практическое задание

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

   Указание:

   Создать две резервные копии:

   - с расширением CUSTOM для восстановления БД;

   - с расширением PLAIN для листинга (в отчете);

   - при создании резервных копий БД настроить параметры Dump options для Type of objects и Queries.
7. Восстановить БД.

Выполнение

Вариант 16. БД «Спортивный клуб»

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

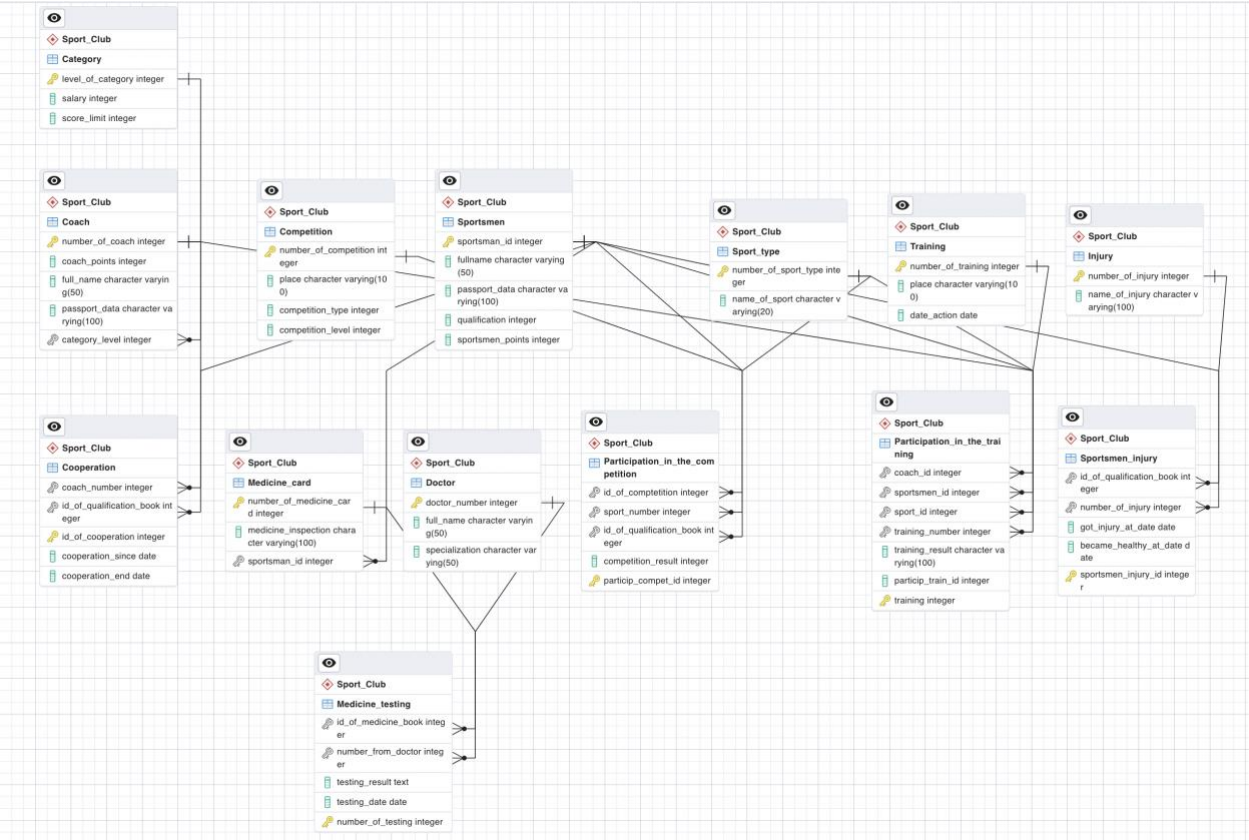

Рисунок 1 – Схема логической модели базы данных.

Листинг кода дампа приведен ниже в листинге 1:

Листинг 1 – Описание атрибутов сущностей

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


-- Dumped from database version 15.4 (Homebrew)
-- Dumped by pg_dump version 16.0


-- Started on 2023-11-13 15:36:00 MSK


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 3751 (class 1262 OID 16402)
-- Name: DB-ITMO; Type: DATABASE; Schema: -; Owner: postgres
--

CREATE DATABASE "DB-ITMO" WITH TEMPLATE = template0 ENCODING = 'UTF8' LOCALE_PROVIDER = libc
LOCALE = 'C';


ALTER DATABASE "DB-ITMO" OWNER TO postgres;

\connect -reuse-previous=on "dbname='DB-ITMO'"

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 5 (class 2615 OID 16404)
-- Name: Sport_Club; Type: SCHEMA; Schema: -; Owner: postgres
--

CREATE SCHEMA "Sport_Club";


ALTER SCHEMA "Sport_Club" OWNER TO postgres;

SET default_tablespace = '';

SET default_table_access_method = heap;

--
```

```
-- TOC entry 214 (class 1259 OID 16405)
-- Name: Category; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Category" (
    level_of_category integer NOT NULL,
    salary integer NOT NULL,
    score_limit integer NOT NULL
);


ALTER TABLE "Sport_Club"."Category" OWNER TO postgres;

--
-- TOC entry 221 (class 1259 OID 16481)
-- Name: Coach; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Coach" (
    number_of_coach integer NOT NULL,
    coach_points integer DEFAULT 0 NOT NULL,
    full_name character varying(50) NOT NULL,
    passport_data character varying(100) NOT NULL,
    category_level integer NOT NULL,
    CONSTRAINT coach_points_check1 CHECK ((coach_points >= 0)),
    CONSTRAINT coach_points_check2 CHECK ((coach_points <= 1000))
);


ALTER TABLE "Sport_Club"."Coach" OWNER TO postgres;

--
-- TOC entry 218 (class 1259 OID 16466)
-- Name: Competition; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Competition" (
    number_of_competition integer NOT NULL,
    place character varying(100) NOT NULL,
    competition_type integer NOT NULL,
    competition_level integer NOT NULL,
    CONSTRAINT competition_level CHECK ((competition_level >= 0)),
```

```
    CONSTRAINT competition_type CHECK ((competition_type >= 0))
);


ALTER TABLE "Sport_Club"."Competition" OWNER TO postgres;

--
-- TOC entry 226 (class 1259 OID 16578)
-- Name: Cooperation; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Cooperation" (
    coach_number integer NOT NULL,
    id_of_qualification_book integer NOT NULL,
    id_of_cooperation integer NOT NULL,
    cooperation_since date NOT NULL,
    cooperation_end date NOT NULL
);


ALTER TABLE "Sport_Club"."Cooperation" OWNER TO postgres;

--
-- TOC entry 219 (class 1259 OID 16473)
-- Name: Doctor; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Doctor" (
    doctor_number integer NOT NULL,
    full_name character varying(50) NOT NULL,
    specialization character varying(50) NOT NULL
);


ALTER TABLE "Sport_Club"."Doctor" OWNER TO postgres;

--
-- TOC entry 217 (class 1259 OID 16461)
-- Name: Injury; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Injury" (
```

```
    number_of_injury integer NOT NULL,
    name_of_injury character varying(100) NOT NULL
);


ALTER TABLE "Sport_Club"."Injury" OWNER TO postgres;

--
-- TOC entry 220 (class 1259 OID 16476)
-- Name: Medicine_card; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Medicine_card" (
    number_of_medicine_card integer NOT NULL,
    medicine_inspection character varying(100) NOT NULL,
    sportsman_id integer
);


ALTER TABLE "Sport_Club"."Medicine_card" OWNER TO postgres;

--
-- TOC entry 227 (class 1259 OID 16595)
-- Name: Medicine_testing; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Medicine_testing" (
    id_of_medicine_book integer NOT NULL,
    number_from_doctor integer NOT NULL,
    testing_result text NOT NULL,
    testing_date date NOT NULL,
    number_of_testing integer NOT NULL
);


ALTER TABLE "Sport_Club"."Medicine_testing" OWNER TO postgres;

--
-- TOC entry 225 (class 1259 OID 16560)
-- Name: Participation_in_the_competition ; Type: TABLE; Schema: Sport_Club; Owner: postgres
--
```

```
CREATE TABLE "Sport_Club"."Participation_in_the_competition " (
    id_of_comptetition integer NOT NULL,
    sport_number integer NOT NULL,
    id_of_qualification_book integer NOT NULL,
    competition_result integer NOT NULL,
    particip_compet_id integer NOT NULL
);


ALTER TABLE "Sport_Club"."Participation_in_the_competition " OWNER TO postgres;

--
-- TOC entry 222 (class 1259 OID 16510)
-- Name: Participation_in_the_training; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Participation_in_the_training" (
    coach_id integer NOT NULL,
    sportsmen_id integer NOT NULL,
    sport_id integer NOT NULL,
    training_number integer NOT NULL,
    training_result character varying(100) NOT NULL,
    particip_train_id integer DEFAULT 0 NOT NULL,
    training integer NOT NULL
);


ALTER TABLE "Sport_Club"."Participation_in_the_training" OWNER TO postgres;

--
-- TOC entry 228 (class 1259 OID 16694)
-- Name: Participation_in_the_training_training_seq; Type: SEQUENCE; Schema: Sport_Club; Owner: postgres
--

CREATE SEQUENCE "Sport_Club"."Participation_in_the_training_training_seq"
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;
```

```
ALTER SEQUENCE "Sport_Club"."Participation_in_the_training_training_seq" OWNER TO postgres;

--
-- TOC entry 3752 (class 0 OID 0)
-- Dependencies: 228
-- Name: Participation_in_the_training_training_seq; Type: SEQUENCE OWNED BY; Schema: Sport_Club; Owner:
postgres
--

ALTER SEQUENCE "Sport_Club"."Participation_in_the_training_training_seq" OWNED BY
"Sport_Club"."Participation_in_the_training".training;


--
-- TOC entry 216 (class 1259 OID 16456)
-- Name: Sport_type; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Sport_type" (
    number_of_sport_type integer NOT NULL,
    name_of_sport character varying(20) NOT NULL
);


ALTER TABLE "Sport_Club"."Sport_type" OWNER TO postgres;

--
-- TOC entry 223 (class 1259 OID 16530)
-- Name: Sportsmen; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Sportsmen" (
    sportsman_id integer NOT NULL,
    fullname character varying(50) NOT NULL,
    passport_data character varying(100) NOT NULL,
    qualification integer NOT NULL,
    sportsmen_points integer DEFAULT 0 NOT NULL,
    CONSTRAINT qualification_check CHECK ((qualification >= 0)),
    CONSTRAINT sportsmen_points_check1 CHECK ((sportsmen_points >= 0)),
    CONSTRAINT sportsmen_points_check2 CHECK ((sportsmen_points <= 1000))
);
```

```
ALTER TABLE "Sport_Club"."Sportsmen" OWNER TO postgres;


--
-- TOC entry 224 (class 1259 OID 16544)
-- Name: Sportsmen_injury; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Sportsmen_injury" (
    id_of_qualification_book integer NOT NULL,
    number_of_injury integer NOT NULL,
    got_injury_at_date date NOT NULL,
    became_healthy_at_date date NOT NULL,
    sportsmen_injury_id integer NOT NULL
);


ALTER TABLE "Sport_Club"."Sportsmen_injury" OWNER TO postgres;

--
-- TOC entry 215 (class 1259 OID 16450)
-- Name: Training; Type: TABLE; Schema: Sport_Club; Owner: postgres
--

CREATE TABLE "Sport_Club"."Training" (
    number_of_training integer NOT NULL,
    place character varying(100) NOT NULL,
    date_action date NOT NULL,
    CONSTRAINT number_of_training_check CHECK ((number_of_training > 0))
);


ALTER TABLE "Sport_Club"."Training" OWNER TO postgres;

--
-- TOC entry 3515 (class 2604 OID 16695)
-- Name: Participation_in_the_training training; Type: DEFAULT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_training" ALTER COLUMN training SET DEFAULT
nextval('"Sport_Club"."Participation_in_the_training_training_seq"'::regclass);
```

```
--
-- TOC entry 3731 (class 0 OID 16405)
-- Dependencies: 214
-- Data for Name: Category; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Category" VALUES (1, 50000, 100);
INSERT INTO "Sport_Club"."Category" VALUES (2, 60000, 200);
INSERT INTO "Sport_Club"."Category" VALUES (3, 70000, 300);
INSERT INTO "Sport_Club"."Category" VALUES (4, 80000, 400);
INSERT INTO "Sport_Club"."Category" VALUES (5, 90000, 500);
INSERT INTO "Sport_Club"."Category" VALUES (6, 100000, 600);
INSERT INTO "Sport_Club"."Category" VALUES (7, 110000, 700);
INSERT INTO "Sport_Club"."Category" VALUES (8, 120000, 800);
INSERT INTO "Sport_Club"."Category" VALUES (9, 130000, 900);
INSERT INTO "Sport_Club"."Category" VALUES (10, 140000, 1000);


--
-- TOC entry 3738 (class 0 OID 16481)
-- Dependencies: 221
-- Data for Name: Coach; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Coach" VALUES (1, 100, 'Иванов Иван Иванович', '1234567890', 3);
INSERT INTO "Sport_Club"."Coach" VALUES (2, 110, 'Петрова Марина Александровна', '2345678901', 2);
INSERT INTO "Sport_Club"."Coach" VALUES (3, 120, 'Сидоров Алексей Петрович', '3456789012', 4);
INSERT INTO "Sport_Club"."Coach" VALUES (4, 130, 'Михайлова Елена Сергеевна', '4567890123', 2);
INSERT INTO "Sport_Club"."Coach" VALUES (5, 140, 'Козлов Сергей Владимирович', '5678901234', 3);
INSERT INTO "Sport_Club"."Coach" VALUES (6, 150, 'Никитина Ольга Дмитриевна', '6789012345', 2);
INSERT INTO "Sport_Club"."Coach" VALUES (7, 160, 'Андреев Владимир Андреевич', '7890123456', 4);
INSERT INTO "Sport_Club"."Coach" VALUES (8, 170, 'Павлова Татьяна Ивановна', '8901234567', 3);
INSERT INTO "Sport_Club"."Coach" VALUES (9, 180, 'Егоров Дмитрий Анатольевич', '9012345678', 2);
INSERT INTO "Sport_Club"."Coach" VALUES (10, 190, 'Васильева Наталья Георгиевна', '0123456789', 4);


--
-- TOC entry 3735 (class 0 OID 16466)
-- Dependencies: 218
-- Data for Name: Competition; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--
```

```
INSERT INTO "Sport_Club"."Competition" VALUES (1, 'Стадион A', 1, 2);
INSERT INTO "Sport_Club"."Competition" VALUES (2, 'Зал B', 2, 1);
INSERT INTO "Sport_Club"."Competition" VALUES (3, 'Парк C', 3, 3);
INSERT INTO "Sport_Club"."Competition" VALUES (4, 'Бассейн D', 1, 2);
INSERT INTO "Sport_Club"."Competition" VALUES (5, 'Скейтпарк E', 2, 1);
INSERT INTO "Sport_Club"."Competition" VALUES (6, 'Площадка F', 3, 3);
INSERT INTO "Sport_Club"."Competition" VALUES (7, 'Арена G', 1, 2);
INSERT INTO "Sport_Club"."Competition" VALUES (8, 'Пляж H', 2, 1);
INSERT INTO "Sport_Club"."Competition" VALUES (9, 'Спортзал I', 3, 3);
INSERT INTO "Sport_Club"."Competition" VALUES (10, 'Гора J', 1, 2);



--
-- TOC entry 3743 (class 0 OID 16578)
-- Dependencies: 226
-- Data for Name: Cooperation; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Cooperation" VALUES (1, 1, 1, '2023-01-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (1, 2, 2, '2023-02-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (2, 3, 3, '2023-03-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (2, 4, 4, '2023-04-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (3, 5, 5, '2023-05-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (3, 6, 6, '2023-06-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (4, 7, 7, '2023-07-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (4, 8, 8, '2023-08-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (5, 9, 9, '2023-09-01', '2023-12-31');
INSERT INTO "Sport_Club"."Cooperation" VALUES (5, 10, 10, '2023-10-01', '2023-12-31');



--
-- TOC entry 3736 (class 0 OID 16473)
-- Dependencies: 219
-- Data for Name: Doctor; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Doctor" VALUES (1, 'Иванов Иван Иванович', 'Травматолог');
INSERT INTO "Sport_Club"."Doctor" VALUES (2, 'Петрова Марина Александровна', 'Ортопед');
INSERT INTO "Sport_Club"."Doctor" VALUES (3, 'Сидоров Алексей Петрович', 'Кардиолог');
INSERT INTO "Sport_Club"."Doctor" VALUES (4, 'Михайлова Елена Сергеевна', 'Офтальмолог');
INSERT INTO "Sport_Club"."Doctor" VALUES (5, 'Козлов Сергей Владимирович', 'Педиатр');
INSERT INTO "Sport_Club"."Doctor" VALUES (6, 'Никитина Ольга Дмитриевна', 'Невролог');
```

```
INSERT INTO "Sport_Club"."Doctor" VALUES (7, 'Андреев Владимир Андреевич', 'Хирург');
INSERT INTO "Sport_Club"."Doctor" VALUES (8, 'Павлова Татьяна Ивановна', 'Терапевт');
INSERT INTO "Sport_Club"."Doctor" VALUES (9, 'Егоров Дмитрий Анатольевич', 'Стоматолог');
INSERT INTO "Sport_Club"."Doctor" VALUES (10, 'Васильева Наталья Георгиевна', 'Акушер-гинеколог');



--
-- TOC entry 3734 (class 0 OID 16461)
-- Dependencies: 217
-- Data for Name: Injury; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Injury" VALUES (1, 'Спрейн лодыжки');
INSERT INTO "Sport_Club"."Injury" VALUES (2, 'Повреждение колена');
INSERT INTO "Sport_Club"."Injury" VALUES (3, 'Растяжение мышцы');
INSERT INTO "Sport_Club"."Injury" VALUES (4, 'Ушиб');
INSERT INTO "Sport_Club"."Injury" VALUES (5, 'Травма головы');
INSERT INTO "Sport_Club"."Injury" VALUES (6, 'Опорожнение');
INSERT INTO "Sport_Club"."Injury" VALUES (7, 'Вывих плеча');
INSERT INTO "Sport_Club"."Injury" VALUES (8, 'Подрезание колена');
INSERT INTO "Sport_Club"."Injury" VALUES (9, 'Ожог');
INSERT INTO "Sport_Club"."Injury" VALUES (10, 'Сотрясение мозга');



--
-- TOC entry 3737 (class 0 OID 16476)
-- Dependencies: 220
-- Data for Name: Medicine_card; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Medicine_card" VALUES (1, 'Осмотр врача перед соревнованием', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (2, 'Регулярный медицинский осмотр спортсмена', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (3, 'Медицинский осмотр после травмы', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (4, 'Специализированное обследование для спортсменов',
NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (5, 'Психологическая консультация', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (6, 'Лабораторные анализы крови и мочи', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (7, 'ЭКГ и мониторинг сердечной деятельности', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (8, 'УЗИ и рентгенография', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (9, 'Физиотерапия и реабилитация', NULL);
INSERT INTO "Sport_Club"."Medicine_card" VALUES (10, 'Допинг-контроль и антидопинговые проверки', NULL);
```

```
--
-- TOC entry 3744 (class 0 OID 16595)
-- Dependencies: 227
-- Data for Name: Medicine_testing; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--



--
-- TOC entry 3742 (class 0 OID 16560)
-- Dependencies: 225
-- Data for Name: Participation_in_the_competition ; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--



--
-- TOC entry 3739 (class 0 OID 16510)
-- Dependencies: 222
-- Data for Name: Participation_in_the_training; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (1, 1, 1, 1, 'Успех', 0, 1);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (1, 2, 1, 2, 'Успех', 0, 2);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (2, 3, 2, 3, 'Успех', 0, 3);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (2, 4, 2, 4, 'Успех', 0, 4);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (3, 5, 3, 5, 'Успех', 0, 5);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (3, 6, 3, 6, 'Успех', 0, 6);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (4, 7, 4, 7, 'Успех', 0, 7);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (4, 8, 4, 8, 'Успех', 0, 8);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (5, 9, 5, 9, 'Успех', 0, 9);
INSERT INTO "Sport_Club"."Participation_in_the_training" VALUES (5, 10, 5, 10, 'Успех', 0, 10);



--
-- TOC entry 3733 (class 0 OID 16456)
-- Dependencies: 216
-- Data for Name: Sport_type; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Sport_type" VALUES (1, 'Футбол');
INSERT INTO "Sport_Club"."Sport_type" VALUES (2, 'Баскетбол');
```

```
INSERT INTO "Sport_Club"."Sport_type" VALUES (3, 'Теннис');
INSERT INTO "Sport_Club"."Sport_type" VALUES (4, 'Плавание');
INSERT INTO "Sport_Club"."Sport_type" VALUES (5, 'Бег');
INSERT INTO "Sport_Club"."Sport_type" VALUES (6, 'Волейбол');
INSERT INTO "Sport_Club"."Sport_type" VALUES (7, 'Гольф');
INSERT INTO "Sport_Club"."Sport_type" VALUES (8, 'Бокс');
INSERT INTO "Sport_Club"."Sport_type" VALUES (9, 'Шахматы');
INSERT INTO "Sport_Club"."Sport_type" VALUES (10, 'Хоккей');



--
-- TOC entry 3740 (class 0 OID 16530)
-- Dependencies: 223
-- Data for Name: Sportsmen; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--

INSERT INTO "Sport_Club"."Sportsmen" VALUES (1, 'Иванов Иван Иванович', '1234567890', 3, 100);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (2, 'Петрова Марина Александровна', '2345678901', 2, 110);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (3, 'Сидоров Алексей Петрович', '3456789012', 4, 120);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (4, 'Михайлова Елена Сергеевна', '4567890123', 2, 130);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (5, 'Козлов Сергей Владимирович', '5678901234', 3, 140);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (6, 'Никитина Ольга Дмитриевна', '6789012345', 2, 150);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (7, 'Андреев Владимир Андреевич', '7890123456', 4, 160);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (8, 'Павлова Татьяна Ивановна', '8901234567', 3, 170);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (9, 'Егоров Дмитрий Анатольевич', '9012345678', 2, 180);
INSERT INTO "Sport_Club"."Sportsmen" VALUES (10, 'Васильева Наталья Георгиевна', '0123456789', 4, 190);



--
-- TOC entry 3741 (class 0 OID 16544)
-- Dependencies: 224
-- Data for Name: Sportsmen_injury; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--




--
-- TOC entry 3732 (class 0 OID 16450)
-- Dependencies: 215
-- Data for Name: Training; Type: TABLE DATA; Schema: Sport_Club; Owner: postgres
--
```

```
INSERT INTO "Sport_Club"."Training" VALUES (1, 'Место 1', '2023-10-23');
INSERT INTO "Sport_Club"."Training" VALUES (2, 'Место 2', '2023-10-24');
INSERT INTO "Sport_Club"."Training" VALUES (3, 'Место 3', '2023-10-25');
INSERT INTO "Sport_Club"."Training" VALUES (4, 'Место 4', '2023-10-26');
INSERT INTO "Sport_Club"."Training" VALUES (5, 'Место 5', '2023-10-27');
INSERT INTO "Sport_Club"."Training" VALUES (6, 'Место 6', '2023-10-28');
INSERT INTO "Sport_Club"."Training" VALUES (7, 'Место 7', '2023-10-29');
INSERT INTO "Sport_Club"."Training" VALUES (8, 'Место 8', '2023-10-30');
INSERT INTO "Sport_Club"."Training" VALUES (9, 'Место 9', '2023-10-31');
INSERT INTO "Sport_Club"."Training" VALUES (10, 'Место 10', '2023-11-01');
INSERT INTO "Sport_Club"."Training" VALUES (11, 'Место 11', '2023-11-02');
INSERT INTO "Sport_Club"."Training" VALUES (12, 'Место 12', '2023-11-03');
INSERT INTO "Sport_Club"."Training" VALUES (13, 'Место 13', '2023-11-04');
INSERT INTO "Sport_Club"."Training" VALUES (14, 'Место 14', '2023-11-05');
INSERT INTO "Sport_Club"."Training" VALUES (15, 'Место 15', '2023-11-06');
INSERT INTO "Sport_Club"."Training" VALUES (16, 'Место 16', '2023-11-07');
INSERT INTO "Sport_Club"."Training" VALUES (17, 'Место 17', '2023-11-08');
INSERT INTO "Sport_Club"."Training" VALUES (18, 'Место 18', '2023-11-09');
INSERT INTO "Sport_Club"."Training" VALUES (19, 'Место 19', '2023-11-10');
INSERT INTO "Sport_Club"."Training" VALUES (20, 'Место 20', '2023-11-11');


--
-- TOC entry 3753 (class 0 OID 0)
-- Dependencies: 228
-- Name: Participation_in_the_training_training_seq; Type: SEQUENCE SET; Schema: Sport_Club; Owner: postgres
--

SELECT pg_catalog.setval('"Sport_Club"."Participation_in_the_training_training_seq"', 10, true);


--
-- TOC entry 3517 (class 2606 OID 16410)
-- Name: Category Category_check; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Category"
    ADD CONSTRAINT "Category_check" CHECK ((level_of_category > 0)) NOT VALID;


--
-- TOC entry 3537 (class 2606 OID 16409)
```

```
-- Name: Category Category_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Category"
    ADD CONSTRAINT "Category_pkey" PRIMARY KEY (level_of_category);


--
-- TOC entry 3571 (class 2606 OID 16582)
-- Name: Cooperation Cooperation_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Cooperation"
    ADD CONSTRAINT "Cooperation_pkey" PRIMARY KEY (id_of_cooperation);


--
-- TOC entry 3551 (class 2606 OID 16611)
-- Name: Doctor Doctor_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Doctor"
    ADD CONSTRAINT "Doctor_pkey" PRIMARY KEY (doctor_number);


--
-- TOC entry 3545 (class 2606 OID 16632)
-- Name: Injury Injury_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Injury"
    ADD CONSTRAINT "Injury_pkey" PRIMARY KEY (number_of_injury);


--
-- TOC entry 3555 (class 2606 OID 16702)
-- Name: Medicine_card Medicine_card_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Medicine_card"
    ADD CONSTRAINT "Medicine_card_pkey" PRIMARY KEY (number_of_medicine_card);
```

```
--
-- TOC entry 3573 (class 2606 OID 16674)
-- Name: Medicine_testing Medicine_testing_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Medicine_testing"
    ADD CONSTRAINT "Medicine_testing_pkey" PRIMARY KEY (number_of_testing);


--
-- TOC entry 3569 (class 2606 OID 16594)
-- Name: Participation_in_the_competition  Participation_in_the_competition _pkey; Type: CONSTRAINT; Schema:
Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_competition "
    ADD CONSTRAINT "Participation_in_the_competition _pkey" PRIMARY KEY (particip_compet_id);


--
-- TOC entry 3561 (class 2606 OID 16700)
-- Name: Participation_in_the_training Participation_in_the_training_pkey; Type: CONSTRAINT; Schema: Sport_Club;
Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_training"
    ADD CONSTRAINT "Participation_in_the_training_pkey" PRIMARY KEY (training);


--
-- TOC entry 3518 (class 2606 OID 16411)
-- Name: Category Salary_check1; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Category"
    ADD CONSTRAINT "Salary_check1" CHECK ((salary >= 0)) NOT VALID;


--
-- TOC entry 3519 (class 2606 OID 16412)
-- Name: Category Salary_check2; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--
```

```
ALTER TABLE "Sport_Club"."Category"
    ADD CONSTRAINT "Salary_check2" CHECK ((salary <= 1000000)) NOT VALID;


--
-- TOC entry 3541 (class 2606 OID 16630)
-- Name: Sport_type Sport_type_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Sport_type"
    ADD CONSTRAINT "Sport_type_pkey" PRIMARY KEY (number_of_sport_type);


--
-- TOC entry 3567 (class 2606 OID 16636)
-- Name: Sportsmen_injury Sportsmen_injury_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Sportsmen_injury"
    ADD CONSTRAINT "Sportsmen_injury_pkey" PRIMARY KEY (sportsmen_injury_id);


--
-- TOC entry 3563 (class 2606 OID 16538)
-- Name: Sportsmen Sportsmen_pkey; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Sportsmen"
    ADD CONSTRAINT "Sportsmen_pkey" PRIMARY KEY (sportsman_id);


--
-- TOC entry 3535 (class 2606 OID 16712)
-- Name: Medicine_testing date_chech; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Medicine_testing"
    ADD CONSTRAINT date_chech CHECK ((testing_date <= CURRENT_DATE)) NOT VALID;


--
-- TOC entry 3531 (class 2606 OID 16713)
```

```
-- Name: Sportsmen_injury date_check; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Sportsmen_injury"
    ADD CONSTRAINT date_check CHECK ((got_injury_at_date <= CURRENT_DATE)) NOT VALID;


--
-- TOC entry 3522 (class 2606 OID 16715)
-- Name: Training date_check; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Training"
    ADD CONSTRAINT date_check CHECK ((date_action <= CURRENT_DATE)) NOT VALID;


--
-- TOC entry 3533 (class 2606 OID 16716)
-- Name: Cooperation date_check; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Cooperation"
    ADD CONSTRAINT date_check CHECK ((cooperation_since <= CURRENT_DATE)) NOT VALID;


--
-- TOC entry 3532 (class 2606 OID 16714)
-- Name: Sportsmen_injury date_check2; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Sportsmen_injury"
    ADD CONSTRAINT date_check2 CHECK ((became_healthy_at_date <= CURRENT_DATE)) NOT VALID;


--
-- TOC entry 3534 (class 2606 OID 16717)
-- Name: Cooperation date_check2; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Cooperation"
    ADD CONSTRAINT date_check2 CHECK ((cooperation_end <= CURRENT_DATE)) NOT VALID;
```

```
--
-- TOC entry 3553 (class 2606 OID 16613)
-- Name: Doctor doctor_number; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Doctor"
    ADD CONSTRAINT doctor_number UNIQUE (doctor_number);


--
-- TOC entry 3565 (class 2606 OID 16652)
-- Name: Sportsmen id_of_qualification_book; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Sportsmen"
    ADD CONSTRAINT id_of_qualification_book UNIQUE (sportsman_id);


--
-- TOC entry 3559 (class 2606 OID 16509)
-- Name: Coach number_of_coach; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Coach"
    ADD CONSTRAINT number_of_coach PRIMARY KEY (number_of_coach);


--
-- TOC entry 3549 (class 2606 OID 16472)
-- Name: Competition number_of_competition; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Competition"
    ADD CONSTRAINT number_of_competition PRIMARY KEY (number_of_competition);


--
-- TOC entry 3547 (class 2606 OID 16465)
-- Name: Injury number_of_injury; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Injury"
```

```
    ADD CONSTRAINT number_of_injury UNIQUE (number_of_injury);


--
-- TOC entry 3557 (class 2606 OID 16480)
-- Name: Medicine_card number_of_medicine_card; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Medicine_card"
    ADD CONSTRAINT number_of_medicine_card UNIQUE (number_of_medicine_card);


--
-- TOC entry 3543 (class 2606 OID 16460)
-- Name: Sport_type number_of_sport_type; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Sport_type"
    ADD CONSTRAINT number_of_sport_type UNIQUE (number_of_sport_type);


--
-- TOC entry 3539 (class 2606 OID 16455)
-- Name: Training number_of_training; Type: CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Training"
    ADD CONSTRAINT number_of_training PRIMARY KEY (number_of_training);


--
-- TOC entry 3520 (class 2606 OID 16413)
-- Name: Category score_limit_check1; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE "Sport_Club"."Category"
    ADD CONSTRAINT score_limit_check1 CHECK ((score_limit > 0)) NOT VALID;


--
-- TOC entry 3521 (class 2606 OID 16414)
-- Name: Category score_limit_check2; Type: CHECK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--
```

```
ALTER TABLE "Sport_Club"."Category"
    ADD CONSTRAINT score_limit_check2 CHECK ((score_limit <= 1000)) NOT VALID;


--
-- TOC entry 3575 (class 2606 OID 16487)
-- Name: Coach category_level_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Coach"
    ADD CONSTRAINT category_level_key FOREIGN KEY (category_level) REFERENCES
"Sport_Club"."Category"(level_of_category);


--
-- TOC entry 3576 (class 2606 OID 16515)
-- Name: Participation_in_the_training coach_id_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_training"
    ADD CONSTRAINT coach_id_key FOREIGN KEY (coach_id) REFERENCES
"Sport_Club"."Coach"(number_of_coach);


--
-- TOC entry 3585 (class 2606 OID 16583)
-- Name: Cooperation coach_number_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Cooperation"
    ADD CONSTRAINT coach_number_key FOREIGN KEY (coach_number) REFERENCES
"Sport_Club"."Coach"(number_of_coach);


--
-- TOC entry 3582 (class 2606 OID 16563)
-- Name: Participation_in_the_competition  id_of_comptetition_key; Type: FK CONSTRAINT; Schema: Sport_Club;
Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_competition "
```

```
    ADD CONSTRAINT id_of_comptetition_key FOREIGN KEY (id_of_comptetition) REFERENCES
"Sport_Club"."Competition"(number_of_competition);


--
-- TOC entry 3587 (class 2606 OID 16619)
-- Name: Medicine_testing id_of_medicine_book_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner:
postgres
--

ALTER TABLE ONLY "Sport_Club"."Medicine_testing"
    ADD CONSTRAINT id_of_medicine_book_key FOREIGN KEY (id_of_medicine_book) REFERENCES
"Sport_Club"."Medicine_card"(number_of_medicine_card) NOT VALID;


--
-- TOC entry 3586 (class 2606 OID 16588)
-- Name: Cooperation id_of_qualification_book; Type: FK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Cooperation"
    ADD CONSTRAINT id_of_qualification_book FOREIGN KEY (id_of_qualification_book) REFERENCES
"Sport_Club"."Sportsmen"(sportsman_id);


--
-- TOC entry 3580 (class 2606 OID 16547)
-- Name: Sportsmen_injury id_of_qualification_book_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner:
postgres
--

ALTER TABLE ONLY "Sport_Club"."Sportsmen_injury"
    ADD CONSTRAINT id_of_qualification_book_key FOREIGN KEY (id_of_qualification_book) REFERENCES
"Sport_Club"."Sportsmen"(sportsman_id);


--
-- TOC entry 3583 (class 2606 OID 16573)
-- Name: Participation_in_the_competition  id_of_qualification_book_key; Type: FK CONSTRAINT; Schema:
Sport_Club; Owner: postgres
--
```

```
ALTER TABLE ONLY "Sport_Club"."Participation_in_the_competition "
    ADD CONSTRAINT id_of_qualification_book_key FOREIGN KEY (id_of_qualification_book) REFERENCES
"Sport_Club"."Sportsmen"(sportsman_id);



--
-- TOC entry 3588 (class 2606 OID 16624)
-- Name: Medicine_testing number_from_doctor_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner:
postgres
--

ALTER TABLE ONLY "Sport_Club"."Medicine_testing"
    ADD CONSTRAINT number_from_doctor_key FOREIGN KEY (number_from_doctor) REFERENCES
"Sport_Club"."Doctor"(doctor_number) NOT VALID;



--
-- TOC entry 3581 (class 2606 OID 16552)
-- Name: Sportsmen_injury number_of_injury_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Sportsmen_injury"
    ADD CONSTRAINT number_of_injury_key FOREIGN KEY (number_of_injury) REFERENCES
"Sport_Club"."Injury"(number_of_injury);



--
-- TOC entry 3577 (class 2606 OID 16520)
-- Name: Participation_in_the_training sport_id_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_training"
    ADD CONSTRAINT sport_id_key FOREIGN KEY (sport_id) REFERENCES
"Sport_Club"."Sport_type"(number_of_sport_type);



--
-- TOC entry 3584 (class 2606 OID 16568)
-- Name: Participation_in_the_competition  sport_number_key; Type: FK CONSTRAINT; Schema: Sport_Club;
Owner: postgres
--
```

```
ALTER TABLE ONLY "Sport_Club"."Participation_in_the_competition "
    ADD CONSTRAINT sport_number_key FOREIGN KEY (sport_number) REFERENCES
"Sport_Club"."Sport_type"(number_of_sport_type);


--
-- TOC entry 3574 (class 2606 OID 16685)
-- Name: Medicine_card sportsman_id_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner: postgres
--

ALTER TABLE ONLY "Sport_Club"."Medicine_card"
    ADD CONSTRAINT sportsman_id_key FOREIGN KEY (sportsman_id) REFERENCES
"Sport_Club"."Sportsmen"(sportsman_id) NOT VALID;


--
-- TOC entry 3578 (class 2606 OID 16539)
-- Name: Participation_in_the_training sportsmen_id_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner:
postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_training"
    ADD CONSTRAINT sportsmen_id_key FOREIGN KEY (sportsmen_id) REFERENCES
"Sport_Club"."Sportsmen"(sportsman_id) NOT VALID;


--
-- TOC entry 3579 (class 2606 OID 16525)
-- Name: Participation_in_the_training training_id_key; Type: FK CONSTRAINT; Schema: Sport_Club; Owner:
postgres
--

ALTER TABLE ONLY "Sport_Club"."Participation_in_the_training"
    ADD CONSTRAINT training_id_key FOREIGN KEY (training_number) REFERENCES
"Sport_Club"."Training"(number_of_training);


-- Completed on 2023-11-13 15:36:00 MSK

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

Вывод

В ходе лабораторной работы я научился создавать, заполнять, восстанавливать и сохранять баз данных PostgresSQL с использованием программы pgAdmin4. В процессе лабораторной работы была создана база данных и таблицы в соответствии с заданием. Были заданы необходимые привязки и ограничения, после чего таблица была заполнена данными. Для безопасности в случае сбоя было создано две резервные копии, которые позволили восстановить базу данных без потерь, а также посмотреть на листинг кода.