Отчет
по лабораторной работе №3 «Создание БД в СУБД PostgreSQL. Резервное копирование и восстановление БД»

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

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ИТМО

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Оглавление

Цель работы

Овладеть практическими навыками установки СУБД PostgreSQL и создания базы данных в pgadmin 4, создания таблиц базы данных PostgreSQL 1X, назначение ограничений на данные, заполнения таблицх рабочими данными, резервного копирования и восстановления БД.

Практическое задание

1. Установить СУБД PostgreSQL, pgAdmin4.
2. Создать базу данных с использованием pgAdmin4.
3. Создать схему, таблицы в базе данных.
4. Установить ограничения на данные: Primary Key, Unique, Check, Foreign Key.
5. Создать резервную копию БД.
6. Восстановить резервную копию БД.

Вариант 7. БД «Курсы»

Описание предметной области: Сеть учебных подразделений НОУ ДПО занимается организацией внебюджетного образования.

Имеется несколько образовательных программ краткосрочных курсов, предназначенных для определенных специальностей, связанных с программным обеспечением ИТ. Каждый программа имеет определенную длительность и свой перечень изучаемых дисциплин. Одна дисциплина может относиться к нескольким программам. На каждую программу может быть набрано несколько групп обучающихся.

По каждой дисциплине могут проводиться лекционные, лабораторные/практические занятия и практика определенном объеме часов. По каждой дисциплине и практике проводится аттестация в формате экзамен/дифзачет/зачет.

Необходимо хранить информацию по аттестации обучающихся.

Подразделение обеспечивает следующие ресурсы: учебные классы, лекционные аудитории и преподавателей. Необходимо составить расписание занятий.

БД должна содержать следующий минимальный набор сведений: Фамилия слушателя. Имя слушателя. Паспортные данные. Контакты. Код программы. Программа. Тип программы. Объем часов. Номер группы. максимальное количество человек в группе (для набора). Дата начала обучения. Дата окончания обучения. Название дисциплины. Количество часов. Дата занятий. Номер пары. Номер аудитории. Тип аудитории. Адрес площадки. Вид занятий (лекционные, практические или лабораторные). Фамилия преподавателя. Имя и отчество преподавателя. Должность преподавателя. Дисциплины, которые может вести преподаватель.

Выполнение

Для собственного удобства работал с базой данных и pgadmin с помощью Docker. Для того чтобы была возможность удобно редактировать базу данных исключительно через текст создал 2 инициализационных скрипта. В первом скрипте создаются нужные мне типы данных, триггеры, функции и таблички, а во втором добавляются данные. Вместо дампа лучше смотреть эти файлы.
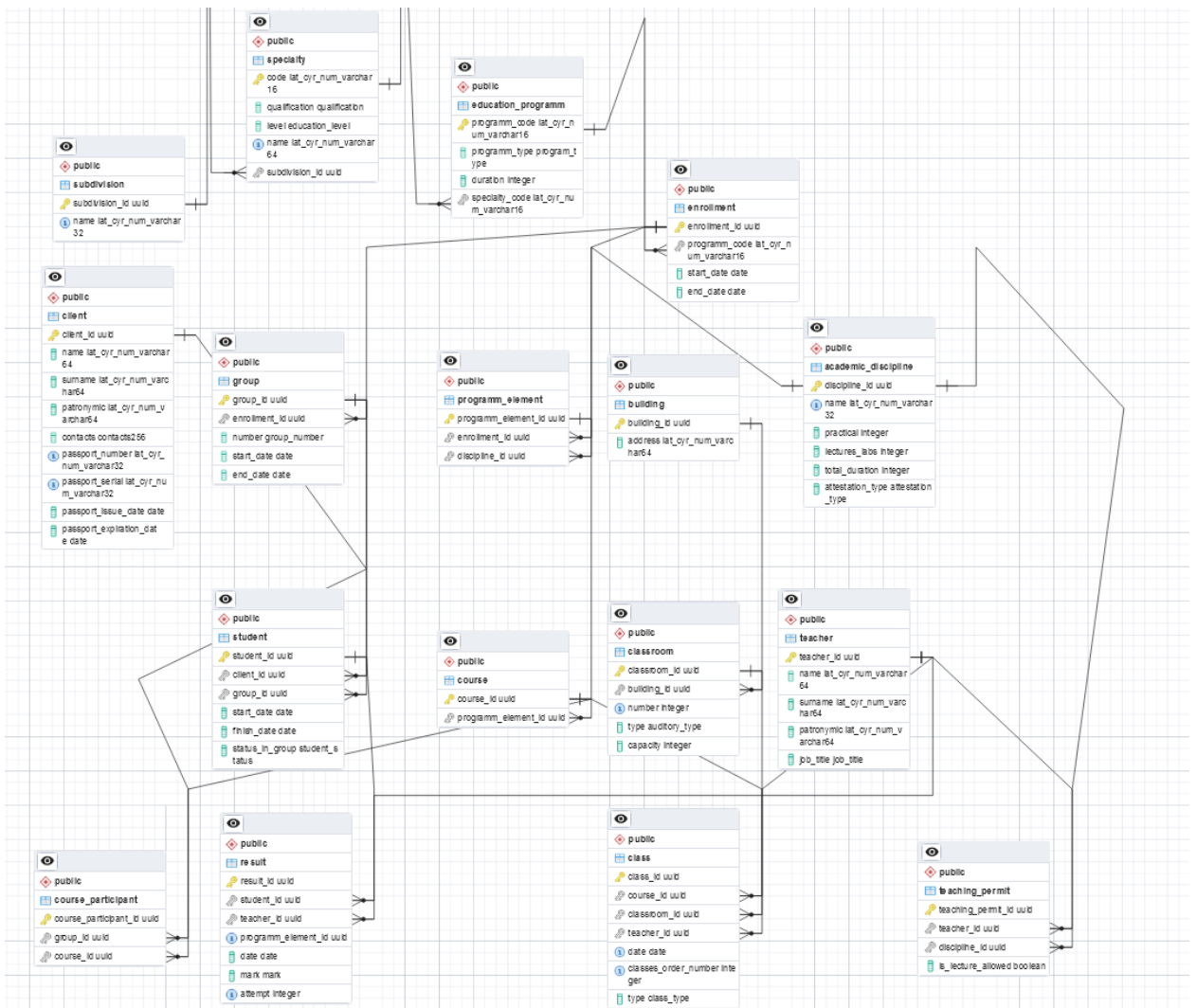
Рисунок 1 - ERD для educational_db

Листинг дампа приведён ниже.

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

-- Dumped from database version 15.3 (Debian 15.3-1.pgdg120+1)
-- Dumped by pg_dump version 15.4

-- Started on 2023-11-06 18:22:15 UTC

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 859 (class 1247 OID 16386)
-- Name: attestation_type; Type: TYPE; Schema: public; Owner: root
```

```sql
--

CREATE TYPE public.attestation_type AS ENUM (
    'дифференциальный',
    'зачёт',
    'экзамен'
);


ALTER TYPE public.attestation_type OWNER TO root;

--
-- TOC entry 874 (class 1247 OID 16434)
-- Name: auditory_type; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.auditory_type AS ENUM (
    'малая',
    'лекционная'
);


ALTER TYPE public.auditory_type OWNER TO root;

--
-- TOC entry 871 (class 1247 OID 16426)
-- Name: class_type; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.class_type AS ENUM (
    'лабораторная',
    'практика',
    'лекция'
);


ALTER TYPE public.class_type OWNER TO root;

--
-- TOC entry 910 (class 1247 OID 16484)
-- Name: contacts256; Type: DOMAIN; Schema: public; Owner: root
--

CREATE DOMAIN public.contacts256 AS character varying(256)
    CONSTRAINT contacts256_check CHECK (((VALUE)::text ~
'^[a-zA-Z0-9а-яёА-ЯЁ\s+-@.,]+$'::text));


ALTER DOMAIN public.contacts256 OWNER TO root;

--
-- TOC entry 865 (class 1247 OID 16404)
-- Name: education_level; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.education_level AS ENUM (
    'бакалавр',
    'магистр',
    'аспирант',
    'СПО'
```

```sql
);


ALTER TYPE public.education_level OWNER TO root;


--
-- TOC entry 886 (class 1247 OID 16466)
-- Name: group_number; Type: DOMAIN; Schema: public; Owner: root
--

CREATE DOMAIN public.group_number AS character varying(8)
    CONSTRAINT group_number_check CHECK (((VALUE)::text ~
'^[a-zA-Z0-9]+$'::text));


ALTER DOMAIN public.group_number OWNER TO root;


--
-- TOC entry 868 (class 1247 OID 16414)
-- Name: job_title; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.job_title AS ENUM (
    'преподаватель',
    'старший преподаватель',
    'доцент',
    'лаборант',
    'ассистент'
);


ALTER TYPE public.job_title OWNER TO root;


--
-- TOC entry 894 (class 1247 OID 16472)
-- Name: lat_cyr_num_varchar16; Type: DOMAIN; Schema: public; Owner: root
--

CREATE DOMAIN public.lat_cyr_num_varchar16 AS character varying(16)
    CONSTRAINT lat_cyr_num_varchar16_check CHECK (((VALUE)::text ~
'^[a-zA-Z0-9а-яёА-ЯЁ\s]+$'::text));


ALTER DOMAIN public.lat_cyr_num_varchar16 OWNER TO root;


--
-- TOC entry 906 (class 1247 OID 16481)
-- Name: lat_cyr_num_varchar256; Type: DOMAIN; Schema: public; Owner: root
--

CREATE DOMAIN public.lat_cyr_num_varchar256 AS character varying(256)
    CONSTRAINT lat_cyr_num_varchar256_check CHECK (((VALUE)::text ~
'^[a-zA-Z0-9а-яёА-ЯЁ\s]+$'::text));


ALTER DOMAIN public.lat_cyr_num_varchar256 OWNER TO root;


--
-- TOC entry 898 (class 1247 OID 16475)
-- Name: lat_cyr_num_varchar32; Type: DOMAIN; Schema: public; Owner: root
```

```sql
--

CREATE DOMAIN public.lat_cyr_num_varchar32 AS character varying(32)
   CONSTRAINT lat_cyr_num_varchar32_check CHECK (((VALUE)::text ~
'^[a-zA-Z0-9а-яёА-ЯЁ\s]+$'::text));


ALTER DOMAIN public.lat_cyr_num_varchar32 OWNER TO root;


--
-- TOC entry 902 (class 1247 OID 16478)
-- Name: lat_cyr_num_varchar64; Type: DOMAIN; Schema: public; Owner: root
--

CREATE DOMAIN public.lat_cyr_num_varchar64 AS character varying(64)
   CONSTRAINT lat_cyr_num_varchar64_check CHECK (((VALUE)::text ~
'^[a-zA-Z0-9а-яёА-ЯЁ\s]+$'::text));


ALTER DOMAIN public.lat_cyr_num_varchar64 OWNER TO root;


--
-- TOC entry 890 (class 1247 OID 16469)
-- Name: lat_cyr_num_varchar8; Type: DOMAIN; Schema: public; Owner: root
--

CREATE DOMAIN public.lat_cyr_num_varchar8 AS character varying(8)
   CONSTRAINT lat_cyr_num_varchar8_check CHECK (((VALUE)::text ~
'^[a-zA-Z0-9а-яёА-ЯЁ\s]+$'::text));


ALTER DOMAIN public.lat_cyr_num_varchar8 OWNER TO root;


--
-- TOC entry 883 (class 1247 OID 16452)
-- Name: mark; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.mark AS ENUM (
    '2',
    '3',
    '4',
    '5',
    'yes',
    'no'
);


ALTER TYPE public.mark OWNER TO root;


--
-- TOC entry 880 (class 1247 OID 16446)
-- Name: program_type; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.program_type AS ENUM (
    'ДПО',
    'основная'
);
```

```sql
ALTER TYPE public.program_type OWNER TO root;


--
-- TOC entry 862 (class 1247 OID 16394)
-- Name: qualification; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.qualification AS ENUM (
    'бакалавр',
    'магистр',
    'техник',
    'преподаватель - исследователь'
);


ALTER TYPE public.qualification OWNER TO root;


--
-- TOC entry 877 (class 1247 OID 16440)
-- Name: student_status; Type: TYPE; Schema: public; Owner: root
--

CREATE TYPE public.student_status AS ENUM (
    'учится',
    'отчислен'
);


ALTER TYPE public.student_status OWNER TO root;


--
-- TOC entry 247 (class 1255 OID 16491)
-- Name: check_class(); Type: FUNCTION; Schema: public; Owner: root
--

CREATE FUNCTION public.check_class() RETURNS trigger
    LANGUAGE plpgsql
    AS $$
DECLARE
    auditory_type AUDITORY_TYPE;
    discipline_discipline_id UUID;
    group_start_date DATE;
    groups_with_late_start INT;
    classroom_capacity INT;
    total_students INT;
BEGIN

SELECT type INTO auditory_type
FROM classroom
WHERE classroom_id = NEW.classroom_id;

IF auditory_type <> 'лекционная' and NEW.type = 'лекция' THEN
  RAISE EXCEPTION 'Classroom type is wrong for this type of class.';
END IF;

SELECT discipline_id INTO discipline_discipline_id
FROM programm_element
WHERE programm_element_id = (
    SELECT programm_element_id
```

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    FROM course
    WHERE course_id = NEW.course_id
);

IF NOT EXISTS (SELECT 1 FROM teaching_permit WHERE discipline_id =
discipline_discipline_id AND (NEW.type <> 'лекция' OR is_lecture_allowed =
TRUE) LIMIT 1) THEN
    RAISE EXCEPTION 'Selected teacher cant be assigned to this class.';
END IF;

SELECT COUNT(*) INTO groups_with_late_start
FROM "group"
WHERE group_id IN (
    SELECT group_id
    FROM course_participant
    WHERE course_id = NEW.course_id
) AND start_date > NEW.date;

IF groups_with_late_start <> 0 THEN
  RAISE EXCEPTION 'Some of groups has start date after class date.';
END IF;

SELECT capacity INTO classroom_capacity
FROM classroom
WHERE classroom_id = NEW.classroom_id;

SELECT COUNT(*) INTO total_students
FROM student
WHERE group_id IN (
    SELECT group_id
    FROM course_participant
    WHERE course_id = NEW.course_id AND status_in_group = 'учится'
);

IF classroom_capacity < total_students THEN
    RAISE EXCEPTION 'Classroom is too small to fit all students.';
END IF;

RETURN NEW;
END;
$$;


ALTER FUNCTION public.check_class() OWNER TO root;

--
-- TOC entry 231 (class 1255 OID 16486)
-- Name: check_group_dates(); Type: FUNCTION; Schema: public; Owner: root
--

CREATE FUNCTION public.check_group_dates() RETURNS trigger
    LANGUAGE plpgsql
    AS $$
DECLARE
    enrollment_start_date DATE;
    enrollment_end_date DATE;
BEGIN
SELECT start_date, end_date INTO enrollment_start_date,
enrollment_end_date
FROM enrollment
```

```sql
WHERE enrollment_id = NEW.enrollment_id;

IF NEW.start_date < enrollment_start_date THEN
        RAISE EXCEPTION 'Group start date must be on or after the
enrollment start date.';
END IF;
IF NEW.end_date > enrollment_end_date THEN
        RAISE EXCEPTION 'Group end date must be on or before the enrollment
end date.';
END IF;

RETURN NEW;
END;
$$;


ALTER FUNCTION public.check_group_dates() OWNER TO root;

--
-- TOC entry 244 (class 1255 OID 16488)
-- Name: check_mark(); Type: FUNCTION; Schema: public; Owner: root
--

CREATE FUNCTION public.check_mark() RETURNS trigger
    LANGUAGE plpgsql
    AS $$
DECLARE
    programm_discipline_id UUID;
    discipline_attestation_type ATTESTATION_TYPE;
BEGIN
SELECT discipline_id INTO programm_discipline_id
FROM programm_element
WHERE programm_element_id = NEW.programm_element_id;

SELECT attestation_type INTO discipline_attestation_type
FROM academic_discipline
WHERE discipline_id = programm_discipline_id;

IF NEW.mark IS NULL THEN
  RETURN NEW;
END IF;
IF discipline_attestation_type = 'зачёт' AND NEW.mark NOT IN ('yes', 'no')
THEN
  RAISE EXCEPTION 'If attestation type is зачёт then allowed marks are
only yes and no';
END IF;
IF discipline_attestation_type IN ('дифференциальный','экзамен') AND
NEW.mark NOT IN ('2', '3', '4', '5') THEN
  RAISE EXCEPTION 'If attestation type is дифференциальный or экзамен then
allowed marks are only 2, 3, 4, 5';
END IF;

RETURN NEW;
END;
$$;


ALTER FUNCTION public.check_mark() OWNER TO root;

--
```

```sql
-- TOC entry 246 (class 1255 OID 16490)
-- Name: check_result_attempts(); Type: FUNCTION; Schema: public; Owner:
root
--

CREATE FUNCTION public.check_result_attempts() RETURNS trigger
    LANGUAGE plpgsql
    AS $$
BEGIN
IF NEW.attempt = 0 THEN
    RETURN NEW;
END IF;

IF EXISTS (SELECT 1 FROM result WHERE programm_element_id =
NEW.programm_element_id AND student_id = NEW.student_id AND attempt =
NEW.attempt - 1) THEN
    RETURN NEW;
END IF;

RAISE EXCEPTION 'Previous attempt is not exists.';
END;
$$;


ALTER FUNCTION public.check_result_attempts() OWNER TO root;

--
-- TOC entry 245 (class 1255 OID 16489)
-- Name: check_result_date(); Type: FUNCTION; Schema: public; Owner: root
--

CREATE FUNCTION public.check_result_date() RETURNS trigger
    LANGUAGE plpgsql
    AS $$
DECLARE
    student_start_date DATE;
BEGIN
SELECT start_date INTO student_start_date
FROM student
WHERE student_id = NEW.student_id;

IF NEW.date < student_start_date THEN
        RAISE EXCEPTION 'Result date must be on or after the student start
date.';
END IF;

RETURN NEW;
END;
$$;


ALTER FUNCTION public.check_result_date() OWNER TO root;

--
-- TOC entry 232 (class 1255 OID 16487)
-- Name: check_student_dates(); Type: FUNCTION; Schema: public; Owner:
root
--

CREATE FUNCTION public.check_student_dates() RETURNS trigger
```

```
    LANGUAGE plpgsql
    AS $$
DECLARE
    group_start_date DATE;
    group_end_date DATE;
BEGIN
SELECT start_date, end_date INTO group_start_date, group_end_date
FROM enrollment
WHERE enrollment_id = NEW.enrollment_id;

IF NEW.start_date < group_start_date THEN
        RAISE EXCEPTION 'Student start date must be on or after the group
start date.';
END IF;
IF NEW.end_date > group_end_date THEN
        RAISE EXCEPTION 'Student end date must be on or before the group
end date.';
END IF;

RETURN NEW;
END;
$$;


ALTER FUNCTION public.check_student_dates() OWNER TO root;

SET default_tablespace = '';

SET default_table_access_method = heap;

--
-- TOC entry 214 (class 1259 OID 16492)
-- Name: academic_discipline; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.academic_discipline (
    discipline_id uuid NOT NULL,
    name public.lat_cyr_num_varchar32 NOT NULL,
    practical integer NOT NULL,
    lectures_labs integer,
    total_duration integer NOT NULL,
    attestation_type public.attestation_type NOT NULL,
    CONSTRAINT academic_discipline_check CHECK ((total_duration >
(practical + lectures_labs))),
    CONSTRAINT academic_discipline_lectures_labs_check CHECK
((lectures_labs > 0)),
    CONSTRAINT academic_discipline_practical_check CHECK ((practical > 0))
);


ALTER TABLE public.academic_discipline OWNER TO root;

--
-- TOC entry 226 (class 1259 OID 16658)
-- Name: building; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.building (
    building_id uuid NOT NULL,
    address public.lat_cyr_num_varchar64 NOT NULL
```

```sql
);


ALTER TABLE public.building OWNER TO root;


--
-- TOC entry 230 (class 1259 OID 16704)
-- Name: class; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.class (
    class_id uuid NOT NULL,
    course_id uuid NOT NULL,
    classroom_id uuid NOT NULL,
    teacher_id uuid NOT NULL,
    date date NOT NULL,
    classes_order_number integer NOT NULL,
    type public.class_type NOT NULL,
    CONSTRAINT class_classes_order_number_check CHECK
(((classes_order_number >= 0) AND (classes_order_number < 10)))
);


ALTER TABLE public.class OWNER TO root;


--
-- TOC entry 227 (class 1259 OID 16665)
-- Name: classroom; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.classroom (
    classroom_id uuid NOT NULL,
    building_id uuid NOT NULL,
    number integer NOT NULL,
    type public.auditory_type NOT NULL,
    capacity integer NOT NULL,
    CONSTRAINT classroom_capacity_check CHECK ((capacity > 0)),
    CONSTRAINT classroom_number_check CHECK ((number >= 0))
);


ALTER TABLE public.classroom OWNER TO root;


--
-- TOC entry 222 (class 1259 OID 16594)
-- Name: client; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.client (
    client_id uuid NOT NULL,
    name public.lat_cyr_num_varchar64 NOT NULL,
    surname public.lat_cyr_num_varchar64 NOT NULL,
    patronymic public.lat_cyr_num_varchar64 NOT NULL,
    contacts public.contacts256 NOT NULL,
    passport_number public.lat_cyr_num_varchar32 NOT NULL,
    passport_serial public.lat_cyr_num_varchar32 NOT NULL,
    passport_issue_date date NOT NULL,
    passport_expiration_date date NOT NULL,
    CONSTRAINT client_check CHECK ((passport_expiration_date >
passport_issue_date))
```

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```sql
);


ALTER TABLE public.client OWNER TO root;


--
-- TOC entry 228 (class 1259 OID 16679)
-- Name: course; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.course (
    course_id uuid NOT NULL,
    programm_element_id uuid NOT NULL
);


ALTER TABLE public.course OWNER TO root;


--
-- TOC entry 229 (class 1259 OID 16689)
-- Name: course_participant; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.course_participant (
    course_participant_id uuid NOT NULL,
    group_id uuid NOT NULL,
    course_id uuid NOT NULL
);


ALTER TABLE public.course_participant OWNER TO root;


--
-- TOC entry 217 (class 1259 OID 16527)
-- Name: education_programm; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.education_programm (
    programm_code public.lat_cyr_num_varchar16 NOT NULL,
    programm_type public.program_type NOT NULL,
    duration integer NOT NULL,
    specialty_code public.lat_cyr_num_varchar16 NOT NULL,
    CONSTRAINT education_programm_duration_check CHECK ((duration > 0))
);


ALTER TABLE public.education_programm OWNER TO root;


--
-- TOC entry 218 (class 1259 OID 16540)
-- Name: enrollment; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.enrollment (
    enrollment_id uuid NOT NULL,
    programm_code public.lat_cyr_num_varchar16 NOT NULL,
    start_date date NOT NULL,
    end_date date NOT NULL,
    CONSTRAINT enrollment_check CHECK ((end_date > start_date))
);
```

```sql
ALTER TABLE public.enrollment OWNER TO root;


--
-- TOC entry 223 (class 1259 OID 16604)
-- Name: group; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public."group" (
    group_id uuid NOT NULL,
    enrollment_id uuid NOT NULL,
    number public.group_number NOT NULL,
    start_date date NOT NULL,
    end_date date NOT NULL,
    CONSTRAINT group_check CHECK ((end_date > start_date))
);


ALTER TABLE public."group" OWNER TO root;


--
-- TOC entry 219 (class 1259 OID 16553)
-- Name: programm_element; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.programm_element (
    programm_element_id uuid NOT NULL,
    enrollment_id uuid NOT NULL,
    discipline_id uuid NOT NULL
);


ALTER TABLE public.programm_element OWNER TO root;


--
-- TOC entry 225 (class 1259 OID 16637)
-- Name: result; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.result (
    result_id uuid NOT NULL,
    student_id uuid NOT NULL,
    teacher_id uuid NOT NULL,
    programm_element_id uuid NOT NULL,
    date date,
    mark public.mark,
    attempt integer NOT NULL,
    CONSTRAINT result_attempt_check CHECK (((attempt >= 0) AND (attempt <=
3)))
);


ALTER TABLE public.result OWNER TO root;


--
-- TOC entry 216 (class 1259 OID 16513)
-- Name: specialty; Type: TABLE; Schema: public; Owner: root
--
```

```sql
CREATE TABLE public.specialty (
    code public.lat_cyr_num_varchar16 NOT NULL,
    qualification public.qualification NOT NULL,
    level public.education_level NOT NULL,
    name public.lat_cyr_num_varchar64 NOT NULL,
    subdivision_id uuid NOT NULL
);


ALTER TABLE public.specialty OWNER TO root;

--
-- TOC entry 224 (class 1259 OID 16618)
-- Name: student; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.student (
    student_id uuid NOT NULL,
    client_id uuid NOT NULL,
    group_id uuid NOT NULL,
    start_date date NOT NULL,
    finish_date date NOT NULL,
    status_in_group public.student_status NOT NULL,
    CONSTRAINT student_check CHECK ((finish_date > start_date))
);


ALTER TABLE public.student OWNER TO root;

--
-- TOC entry 215 (class 1259 OID 16504)
-- Name: subdivision; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.subdivision (
    subdivision_id uuid NOT NULL,
    name public.lat_cyr_num_varchar32 NOT NULL
);


ALTER TABLE public.subdivision OWNER TO root;

--
-- TOC entry 220 (class 1259 OID 16570)
-- Name: teacher; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.teacher (
    teacher_id uuid NOT NULL,
    name public.lat_cyr_num_varchar64 NOT NULL,
    surname public.lat_cyr_num_varchar64 NOT NULL,
    patronymic public.lat_cyr_num_varchar64 NOT NULL,
    job_title public.job_title NOT NULL
);


ALTER TABLE public.teacher OWNER TO root;

--
-- TOC entry 221 (class 1259 OID 16577)
```

```sql
--
-- Name: teaching_permit; Type: TABLE; Schema: public; Owner: root
--

CREATE TABLE public.teaching_permit (
    teaching_permit_id uuid NOT NULL,
    teacher_id uuid NOT NULL,
    discipline_id uuid NOT NULL,
    is_lecture_allowed boolean NOT NULL
);


ALTER TABLE public.teaching_permit OWNER TO root;

--
-- TOC entry 3558 (class 0 OID 16492)
-- Dependencies: 214
-- Data for Name: academic_discipline; Type: TABLE DATA; Schema: public;
Owner: root
--

INSERT INTO public.academic_discipline (discipline_id, name, practical,
lectures_labs, total_duration, attestation_type) VALUES
('a0b33a1c-fa29-49d2-ba4d-d7cd8030e315', 'Математичекий анализ', 20, 10,
60, 'экзамен');
INSERT INTO public.academic_discipline (discipline_id, name, practical,
lectures_labs, total_duration, attestation_type) VALUES
('da1ab801-fbe0-42b1-a1b4-6a9c51d11a8f', 'Физика', 15, 15, 45,
'дифференциальный');
INSERT INTO public.academic_discipline (discipline_id, name, practical,
lectures_labs, total_duration, attestation_type) VALUES
('34c49c8b-62d2-4c1d-b08e-9dceb895e93e', 'Химия', 18, 12, 50, 'зачёт');
INSERT INTO public.academic_discipline (discipline_id, name, practical,
lectures_labs, total_duration, attestation_type) VALUES
('93a3e393-8c7b-427e-9a35-f15c4c96877a', 'Биология', 25, 5, 50,
'экзамен');
INSERT INTO public.academic_discipline (discipline_id, name, practical,
lectures_labs, total_duration, attestation_type) VALUES
('0c2547df-cfdb-4b24-ab12-ce06d409867e', 'Информатика', 30, 20, 100,
'дифференциальный');


--
-- TOC entry 3570 (class 0 OID 16658)
-- Dependencies: 226
-- Data for Name: building; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.building (building_id, address) VALUES
('e4a6bdb7-bf93-43e3-b738-f3c2f46e6e52', 'Кудыкина гора');
INSERT INTO public.building (building_id, address) VALUES
('db687dd1-d0b8-4a87-b0c1-31427d197ef3', 'Кудыкина гора 2');


--
-- TOC entry 3574 (class 0 OID 16704)
-- Dependencies: 230
-- Data for Name: class; Type: TABLE DATA; Schema: public; Owner: root
--
```

```sql
INSERT INTO public.class (class_id, course_id, classroom_id, teacher_id,
date, classes_order_number, type) VALUES
('27a6318c-5abd-4b5a-8743-31df33c0838c',
'1920d807-a833-4b73-9d5a-f0f9eaf1af1d',
'4bd4ffe8-f48f-4375-b99c-191ee70e0bcd',
'064f78ca-718e-4c20-9bf8-3abee87114ca', '2023-12-31', 0, 'лекция');
INSERT INTO public.class (class_id, course_id, classroom_id, teacher_id,
date, classes_order_number, type) VALUES
('920aab7c-2319-4033-80dd-8b23bed5afc1',
'0f442e4e-288a-4ca6-bfca-a09cc73803cd',
'5293bd6e-bf24-48f2-be0c-cabce465df46',
'17a5c7a6-fb30-4ff9-b4d5-63fd6c20183e', '2023-12-31', 1, 'лабораторная');


--
-- TOC entry 3571 (class 0 OID 16665)
-- Dependencies: 227
-- Data for Name: classroom; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('4bd4ffe8-f48f-4375-b99c-191ee70e0bcd',
'e4a6bdb7-bf93-43e3-b738-f3c2f46e6e52', 101, 'лекционная', 15);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('5c086288-5405-44a2-8d9e-d77a3eccd07a',
'e4a6bdb7-bf93-43e3-b738-f3c2f46e6e52', 102, 'лекционная', 5);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('b0edd76d-6c22-48ef-a67f-9264cfc35136',
'e4a6bdb7-bf93-43e3-b738-f3c2f46e6e52', 103, 'малая', 3);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('f61b1630-3d74-4ca6-a268-7cd1acdff2c2',
'e4a6bdb7-bf93-43e3-b738-f3c2f46e6e52', 104, 'малая', 3);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('58a8a07c-6f8c-4bea-9607-5c550d96a760',
'e4a6bdb7-bf93-43e3-b738-f3c2f46e6e52', 105, 'малая', 3);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('9df8d337-ec5a-4e49-872e-0e3cc0a0c01b',
'db687dd1-d0b8-4a87-b0c1-31427d197ef3', 101, 'лекционная', 5);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('978e4cd8-5e50-4ea2-b2ca-fc5a7d7052d8',
'db687dd1-d0b8-4a87-b0c1-31427d197ef3', 102, 'лекционная', 5);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('85122957-5ca5-4250-9469-76a6adcf0b14',
'db687dd1-d0b8-4a87-b0c1-31427d197ef3', 103, 'малая', 30);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('5293bd6e-bf24-48f2-be0c-cabce465df46',
'db687dd1-d0b8-4a87-b0c1-31427d197ef3', 104, 'малая', 3);
INSERT INTO public.classroom (classroom_id, building_id, number, type,
capacity) VALUES ('96b7a61e-87be-4b76-b87c-519cf4b669ed',
'db687dd1-d0b8-4a87-b0c1-31427d197ef3', 105, 'малая', 3);


--
-- TOC entry 3566 (class 0 OID 16594)
-- Dependencies: 222
-- Data for Name: client; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
```

```sql
passport_expiration_date) VALUES ('132259da-3ddb-4bae-8d01-39414d808ad7',
'Василий', 'Василевский', 'Васильевич', 'vasyapupkin@mail.ru
+7894595495409', '683426', 'GF34', '2022-05-01', '2028-05-01');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('24fd3f29-ec14-4f51-bf76-2f9bf9181b67',
'Анна', 'Андреевна', 'Анатольевна', 'annushka@example.com +71234567890',
'458796', 'AB12', '2019-06-15', '2029-06-15');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('3b25f691-ac4e-4d86-9ba3-f0b9fc2d6160',
'Игорь', 'Игнатов', 'Игоревич', 'igorek123@inbox.ru +79876543210',
'987654', 'KH56', '2020-12-01', '2030-11-30');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('4acca545-ecb6-4aaf-8c34-bf3b1a3d38bc',
'Елена', 'Еленова', 'Евгеньевна', 'elenka@somemail.com +73451234567',
'526874', 'XR22', '2021-07-23', '2031-07-22');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('5c6ee5d3-ee1a-4e9b-9e69-1a5e4c9b9e7d',
'Мария', 'Марьева', 'Михайловна', 'mariam@example.com +79011234567',
'111222', 'XX01', '2021-01-15', '2031-01-14');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('6d7f68b0-5d3a-49f6-8eba-1a9e4c1c9f2e',
'Дмитрий', 'Дмитриев', 'Дмитриевич', 'dmitryd@example.com +79022345678',
'222333', 'XX02', '2021-02-16', '2031-02-15');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('7e8f59c1-6f4b-48b9-9cba-2a0e5c2d9f3f',
'Ирина', 'Иванова', 'Игоревна', 'irinai@example.com +79033456789',
'333444', 'XX03', '2021-03-17', '2031-03-16');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('18ab5bd9-9b31-4d3b-9d24-11e25cc9fefb',
'Сергей', 'Сергеев', 'Сергеевич', 'sergeys@example.com +79044567890',
'444555', 'XX04', '2021-04-18', '2031-04-17');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('19bc6de0-ac42-4fb5-a5b5-21f26dc0fefc',
'Ольга', 'Ольгина', 'Олеговна', 'olgao@example.com +79055678901',
'555666', 'XX05', '2021-05-19', '2031-05-18');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('20cd7ef1-bd53-4fc6-b6b6-31f37ec1f0fd',
'Александр', 'Александров', 'Александрович', 'alexandera@example.com
+79066789012', '666777', 'XX06', '2021-06-20', '2031-06-19');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('8bb9d041-2d55-40d4-afee-1e8e5d2d9e8f',
'Надежда', 'Николаева', 'Николаевна', 'nadyan@example.com +79077890123',
'777888', 'XX07', '2021-07-21', '2031-07-20');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
passport_expiration_date) VALUES ('9cca6112-3d66-4e8d-bf7f-2e9f6e3c9f90',
'Константин', 'Константинов', 'Константинович', 'konstantink@example.com
+79088901234', '888999', 'XX08', '2021-08-22', '2031-08-21');
INSERT INTO public.client (client_id, name, surname, patronymic, contacts,
passport_number, passport_serial, passport_issue_date,
```

```sql
passport_expiration_date) VALUES ('30df8323-7d64-4e9e-afe0-2f9e7e4d9f21',
'Лариса', 'Ларин', 'Ларисовна', 'larisa1@example.com +79099012345',
'999000', 'XX09', '2021-09-23', '2031-09-22');


--
-- TOC entry 3572 (class 0 OID 16679)
-- Dependencies: 228
-- Data for Name: course; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.course (course_id, programm_element_id) VALUES
('6d50d653-b4a7-4912-a8dd-542e453571a7',
'85fcc7ad-4a06-4cd9-bf3d-736e98c8a3c5');
INSERT INTO public.course (course_id, programm_element_id) VALUES
('1920d807-a833-4b73-9d5a-f0f9eaf1af1d',
'002f0e3b-5821-4bdf-82b1-443d63a49245');
INSERT INTO public.course (course_id, programm_element_id) VALUES
('0f442e4e-288a-4ca6-bfca-a09cc73803cd',
'91bb9326-337d-433f-8f99-e548e4f5439a');


--
-- TOC entry 3573 (class 0 OID 16689)
-- Dependencies: 229
-- Data for Name: course_participant; Type: TABLE DATA; Schema: public;
Owner: root
--

INSERT INTO public.course_participant (course_participant_id, group_id,
course_id) VALUES ('a3d14a4b-978f-4f97-9854-58bc37e22832',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e',
'6d50d653-b4a7-4912-a8dd-542e453571a7');
INSERT INTO public.course_participant (course_participant_id, group_id,
course_id) VALUES ('fff8f566-3918-47fa-a4ac-ef8d85c17ba1',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e',
'1920d807-a833-4b73-9d5a-f0f9eaf1af1d');
INSERT INTO public.course_participant (course_participant_id, group_id,
course_id) VALUES ('f5086dcc-4038-48b0-9602-bdf1543a47f2',
'8a472103-92e7-4155-bde7-a071201e8568',
'1920d807-a833-4b73-9d5a-f0f9eaf1af1d');
INSERT INTO public.course_participant (course_participant_id, group_id,
course_id) VALUES ('95d447db-1297-45fd-b5bb-5a19d3af1ceb',
'8a472103-92e7-4155-bde7-a071201e8568',
'0f442e4e-288a-4ca6-bfca-a09cc73803cd');


--
-- TOC entry 3561 (class 0 OID 16527)
-- Dependencies: 217
-- Data for Name: education_programm; Type: TABLE DATA; Schema: public;
Owner: root
--

INSERT INTO public.education_programm (programm_code, programm_type,
duration, specialty_code) VALUES ('PROG001', 'основная', 4, 'SPEC001');
INSERT INTO public.education_programm (programm_code, programm_type,
duration, specialty_code) VALUES ('PROG002', 'основная', 2, 'SPEC002');
INSERT INTO public.education_programm (programm_code, programm_type,
duration, specialty_code) VALUES ('PROG003', 'основная', 4, 'SPEC003');
```

```sql
INSERT INTO public.education_programm (programm_code, programm_type,
duration, specialty_code) VALUES ('PROG004', 'основная', 3, 'SPEC003');
INSERT INTO public.education_programm (programm_code, programm_type,
duration, specialty_code) VALUES ('PROG005', 'ДПО', 5, 'SPEC003');


--
-- TOC entry 3562 (class 0 OID 16540)
-- Dependencies: 218
-- Data for Name: enrollment; Type: TABLE DATA; Schema: public; Owner:
root
--

INSERT INTO public.enrollment (enrollment_id, programm_code, start_date,
end_date) VALUES ('b9e1343d-7a81-4a10-b3ea-aa32f0f833de', 'PROG001',
'2023-09-01', '2027-07-01');
INSERT INTO public.enrollment (enrollment_id, programm_code, start_date,
end_date) VALUES ('014cccbe-6104-4bd8-9187-96fb5a13cb2f', 'PROG002',
'2023-09-01', '2025-07-01');


--
-- TOC entry 3567 (class 0 OID 16604)
-- Dependencies: 223
-- Data for Name: group; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public."group" (group_id, enrollment_id, number, start_date,
end_date) VALUES ('4f0ee28b-98a4-4dbd-a679-d9a9470c719e',
'b9e1343d-7a81-4a10-b3ea-aa32f0f833de', 'K3241', '2023-09-01',
'2024-07-01');
INSERT INTO public."group" (group_id, enrollment_id, number, start_date,
end_date) VALUES ('8a472103-92e7-4155-bde7-a071201e8568',
'014cccbe-6104-4bd8-9187-96fb5a13cb2f', 'K3242', '2023-09-01',
'2024-07-01');


--
-- TOC entry 3563 (class 0 OID 16553)
-- Dependencies: 219
-- Data for Name: programm_element; Type: TABLE DATA; Schema: public;
Owner: root
--

INSERT INTO public.programm_element (programm_element_id, enrollment_id,
discipline_id) VALUES ('85fcc7ad-4a06-4cd9-bf3d-736e98c8a3c5',
'b9e1343d-7a81-4a10-b3ea-aa32f0f833de',
'a0b33a1c-fa29-49d2-ba4d-d7cd8030e315');
INSERT INTO public.programm_element (programm_element_id, enrollment_id,
discipline_id) VALUES ('002f0e3b-5821-4bdf-82b1-443d63a49245',
'b9e1343d-7a81-4a10-b3ea-aa32f0f833de',
'0c2547df-cfdb-4b24-ab12-ce06d409867e');
INSERT INTO public.programm_element (programm_element_id, enrollment_id,
discipline_id) VALUES ('57ac339f-d267-40d7-8397-e36c1e42a9ee',
'014cccbe-6104-4bd8-9187-96fb5a13cb2f',
'a0b33a1c-fa29-49d2-ba4d-d7cd8030e315');
INSERT INTO public.programm_element (programm_element_id, enrollment_id,
discipline_id) VALUES ('91bb9326-337d-433f-8f99-e548e4f5439a',
'014cccbe-6104-4bd8-9187-96fb5a13cb2f',
'34c49c8b-62d2-4c1d-b08e-9dceb895e93e');
```

```sql
--
-- TOC entry 3569 (class 0 OID 16637)
-- Dependencies: 225
-- Data for Name: result; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.result (result_id, student_id, teacher_id,
programm_element_id, date, mark, attempt) VALUES
('faa8f566-3918-47fa-a4ac-ef8d85c17ba1',
'3b8aaf62-d4aa-48f2-9cfd-f1a9c90c0ad1',
'064f78ca-718e-4c20-9bf8-3abee87114ca',
'002f0e3b-5821-4bdf-82b1-443d63a49245', NULL, NULL, 0);
INSERT INTO public.result (result_id, student_id, teacher_id,
programm_element_id, date, mark, attempt) VALUES
('faa8f566-3918-47fa-a4ac-ef8d85c17da2',
'9101da2f-9b03-4f3c-a569-f5708fa8c6c5',
'064f78ca-718e-4c20-9bf8-3abee87114ca',
'002f0e3b-5821-4bdf-82b1-443d63a49245', '2024-01-01', '2', 0);
INSERT INTO public.result (result_id, student_id, teacher_id,
programm_element_id, date, mark, attempt) VALUES
('faa8f566-3918-47fa-a4ac-ef8d85c17da3',
'9101da2f-9b03-4f3c-a569-f5708fa8c6c5',
'064f78ca-718e-4c20-9bf8-3abee87114ca',
'002f0e3b-5821-4bdf-82b1-443d63a49245', '2024-01-01', '4', 1);


--
-- TOC entry 3560 (class 0 OID 16513)
-- Dependencies: 216
-- Data for Name: specialty; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.specialty (code, qualification, level, name,
subdivision_id) VALUES ('SPEC001', 'бакалавр', 'бакалавр', 'Прикладная
информатика', 'f9b8e7ad-dea0-4423-a55c-8867686a3893');
INSERT INTO public.specialty (code, qualification, level, name,
subdivision_id) VALUES ('SPEC002', 'магистр', 'магистр', 'Суперприкладная
информатика', 'f9b8e7ad-dea0-4423-a55c-8867686a3893');
INSERT INTO public.specialty (code, qualification, level, name,
subdivision_id) VALUES ('SPEC003', 'бакалавр', 'бакалавр', 'Неприкладная
химическая информатика', '00085bcd-2521-4d68-8729-f6d1adca4b4a');


--
-- TOC entry 3568 (class 0 OID 16618)
-- Dependencies: 224
-- Data for Name: student; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('3b8aaf62-d4aa-48f2-9cfd-f1a9c90c0ad1',
'132259da-3ddb-4bae-8d01-39414d808ad7',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('9101da2f-9b03-4f3c-a569-f5708fa8c6c5',
```

```sql
'24fd3f29-ec14-4f51-bf76-2f9bf9181b67',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('00495bd0-99de-436b-8456-6fbbb70248da',
'3b25f691-ac4e-4d86-9ba3-f0b9fc2d6160',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('a4b34641-1125-4ba5-8c8f-c6bebe87b40b',
'4acca545-ecb6-4aaf-8c34-bf3b1a3d38bc',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('0456f9f0-b753-4ad1-9cae-de8d7fbc9490',
'5c6ee5d3-ee1a-4e9b-9e69-1a5e4c9b9e7d',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('d5d7cd03-d086-4a4e-9c2b-b1c14e215430',
'6d7f68b0-5d3a-49f6-8eba-1a9e4c1c9f2e',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('405e00b3-37e4-49e0-a191-929de9d72ab8',
'7e8f59c1-6f4b-48b9-9cba-2a0e5c2d9f3f',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('0ae4485d-faf1-4475-bb04-ad480075a231',
'18ab5bd9-9b31-4d3b-9d24-11e25cc9fefb',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'отчислен');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('6a15d442-c3fe-41cc-95ec-76f7c6583f87',
'19bc6de0-ac42-4fb5-a5b5-21f26dc0fefc',
'4f0ee28b-98a4-4dbd-a679-d9a9470c719e', '2023-09-01', '2024-07-01',
'отчислен');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('c1c6b124-4291-44b9-9246-4e3781a8b483',
'20cd7ef1-bd53-4fc6-b6b6-31f37ec1f0fd',
'8a472103-92e7-4155-bde7-a071201e8568', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('befeb349-8417-4759-912f-aeb839717420',
'8bb9d041-2d55-40d4-afee-1e8e5d2d9e8f',
'8a472103-92e7-4155-bde7-a071201e8568', '2023-09-01', '2024-07-01',
'учится');
INSERT INTO public.student (student_id, client_id, group_id, start_date,
finish_date, status_in_group) VALUES
('dc25462f-a669-4c72-88eb-c38ff1d3c6e4',
```

```sql
'9cca6112-3d66-4e8d-bf7f-2e9f6e3c9f90',
'8a472103-92e7-4155-bde7-a071201e8568', '2023-09-01', '2024-07-01',
'учится');


--
-- TOC entry 3559 (class 0 OID 16504)
-- Dependencies: 215
-- Data for Name: subdivision; Type: TABLE DATA; Schema: public; Owner:
root
--

INSERT INTO public.subdivision (subdivision_id, name) VALUES
('f9b8e7ad-dea0-4423-a55c-8867686a3893', 'ФИКТ');
INSERT INTO public.subdivision (subdivision_id, name) VALUES
('00085bcd-2521-4d68-8729-f6d1adca4b4a', 'ФИТИП');


--
-- TOC entry 3564 (class 0 OID 16570)
-- Dependencies: 220
-- Data for Name: teacher; Type: TABLE DATA; Schema: public; Owner: root
--

INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('72a13add-efca-49f0-bc53-fbb7e7be2d8c', 'Иван',
'Иванов', 'Иванович', 'доцент');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('b6b06ff0-eba6-46f5-8263-8a6e1b6b6bb0', 'Николай',
'Иванов', 'Иванович', 'лаборант');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('17a5c7a6-fb30-4ff9-b4d5-63fd6c20183e', 'Евгений',
'Иванов', 'Иванович', 'ассистент');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('e89c4be9-4cbe-46f1-8333-870d697b400b', 'Василий',
'Иванов', 'Иванович', 'старший преподаватель');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('6c0bbc51-93f8-479e-a828-2c71e08de423', 'Пётр',
'Иванов', 'Иванович', 'старший преподаватель');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('064f78ca-718e-4c20-9bf8-3abee87114ca', 'Иван',
'Павлов', 'Иванович', 'лаборант');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('000331af-1293-42eb-9dab-f7e000711a9d', 'Николай',
'Павлов', 'Иванович', 'доцент');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('04645e63-c4a3-4da4-9ce6-b8ed4be50b79', 'Евгений',
'Павлов', 'Иванович', 'доцент');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('42cea071-d15a-4a49-a0dd-c84d9c19e588', 'Василий',
'Павлов', 'Иванович', 'ассистент');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('bc611abc-039c-4eea-b95f-3f6545d67c3f', 'Пётр',
'Павлов', 'Иванович', 'лаборант');
INSERT INTO public.teacher (teacher_id, name, surname, patronymic,
job_title) VALUES ('11914ea8-82fb-46c8-bef5-2e376ac2df97', 'Генадий',
'Павлов', 'Иванович', 'доцент');


--
```

```sql
-- TOC entry 3565 (class 0 OID 16577)
-- Dependencies: 221
-- Data for Name: teaching_permit; Type: TABLE DATA; Schema: public;
Owner: root
--

INSERT INTO public.teaching_permit (teaching_permit_id, teacher_id,
discipline_id, is_lecture_allowed) VALUES
('e8154868-46a7-49b2-85fb-73b55dbae406',
'72a13add-efca-49f0-bc53-fbb7e7be2d8c',
'a0b33a1c-fa29-49d2-ba4d-d7cd8030e315', true);
INSERT INTO public.teaching_permit (teaching_permit_id, teacher_id,
discipline_id, is_lecture_allowed) VALUES
('55ef3562-ebc0-4145-aa51-4c5e1c455ca6',
'b6b06ff0-eba6-46f5-8263-8a6e1b6b6bb0',
'da1ab801-fbe0-42b1-a1b4-6a9c51d11a8f', true);
INSERT INTO public.teaching_permit (teaching_permit_id, teacher_id,
discipline_id, is_lecture_allowed) VALUES
('b3fd1bfe-73c6-4f4b-a731-2100ade8350d',
'17a5c7a6-fb30-4ff9-b4d5-63fd6c20183e',
'34c49c8b-62d2-4c1d-b08e-9dceb895e93e', true);
INSERT INTO public.teaching_permit (teaching_permit_id, teacher_id,
discipline_id, is_lecture_allowed) VALUES
('854aecc5-1ee6-4e51-a62a-19d1561fa8c9',
'6c0bbc51-93f8-479e-a828-2c71e08de423',
'93a3e393-8c7b-427e-9a35-f15c4c96877a', true);
INSERT INTO public.teaching_permit (teaching_permit_id, teacher_id,
discipline_id, is_lecture_allowed) VALUES
('c08a4832-ce5b-47a4-bf9b-a1bea746f1c3',
'064f78ca-718e-4c20-9bf8-3abee87114ca',
'0c2547df-cfdb-4b24-ab12-ce06d409867e', true);
INSERT INTO public.teaching_permit (teaching_permit_id, teacher_id,
discipline_id, is_lecture_allowed) VALUES
('d0c8d66b-a5fb-43ac-b68f-8a854c5a8e7d',
'000331af-1293-42eb-9dab-f7e000711a9d',
'a0b33a1c-fa29-49d2-ba4d-d7cd8030e315', true);
INSERT INTO public.teaching_permit (teaching_permit_id, teacher_id,
discipline_id, is_lecture_allowed) VALUES
('bc608ced-1c2e-400a-ad78-51c24ae5268d',
'72a13add-efca-49f0-bc53-fbb7e7be2d8c',
'da1ab801-fbe0-42b1-a1b4-6a9c51d11a8f', false);


--
-- TOC entry 3336 (class 2606 OID 16503)
-- Name: academic_discipline academic_discipline_name_key; Type:
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.academic_discipline
    ADD CONSTRAINT academic_discipline_name_key UNIQUE (name);


--
-- TOC entry 3338 (class 2606 OID 16501)
-- Name: academic_discipline academic_discipline_pkey; Type: CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.academic_discipline
```

```
    ADD CONSTRAINT academic_discipline_pkey PRIMARY KEY (discipline_id);


--
-- TOC entry 3376 (class 2606 OID 16664)
-- Name: building building_pkey; Type: CONSTRAINT; Schema: public; Owner:
root
--

ALTER TABLE ONLY public.building
    ADD CONSTRAINT building_pkey PRIMARY KEY (building_id);


--
-- TOC entry 3386 (class 2606 OID 16711)
-- Name: class class_classroom_id_classes_order_number_date_key; Type:
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.class
    ADD CONSTRAINT class_classroom_id_classes_order_number_date_key UNIQUE
(classroom_id, classes_order_number, date);


--
-- TOC entry 3388 (class 2606 OID 16709)
-- Name: class class_pkey; Type: CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.class
    ADD CONSTRAINT class_pkey PRIMARY KEY (class_id);


--
-- TOC entry 3390 (class 2606 OID 16713)
-- Name: class class_teacher_id_classes_order_number_date_key; Type:
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.class
    ADD CONSTRAINT class_teacher_id_classes_order_number_date_key UNIQUE
(teacher_id, classes_order_number, date);


--
-- TOC entry 3378 (class 2606 OID 16673)
-- Name: classroom classroom_building_id_number_key; Type: CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.classroom
    ADD CONSTRAINT classroom_building_id_number_key UNIQUE (building_id,
number);


--
-- TOC entry 3380 (class 2606 OID 16671)
-- Name: classroom classroom_pkey; Type: CONSTRAINT; Schema: public;
Owner: root
--
```

```sql
ALTER TABLE ONLY public.classroom
    ADD CONSTRAINT classroom_pkey PRIMARY KEY (classroom_id);


--
-- TOC entry 3362 (class 2606 OID 16603)
-- Name: client client_passport_number_passport_serial_key; Type:
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.client
    ADD CONSTRAINT client_passport_number_passport_serial_key UNIQUE
(passport_number, passport_serial);


--
-- TOC entry 3364 (class 2606 OID 16601)
-- Name: client client_pkey; Type: CONSTRAINT; Schema: public; Owner: root
--

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


--
-- TOC entry 3384 (class 2606 OID 16693)
-- Name: course_participant course_participant_pkey; Type: CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.course_participant
    ADD CONSTRAINT course_participant_pkey PRIMARY KEY
(course_participant_id);


--
-- TOC entry 3382 (class 2606 OID 16683)
-- Name: course course_pkey; Type: CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.course
    ADD CONSTRAINT course_pkey PRIMARY KEY (course_id);


--
-- TOC entry 3348 (class 2606 OID 16534)
-- Name: education_programm education_programm_pkey; Type: CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.education_programm
    ADD CONSTRAINT education_programm_pkey PRIMARY KEY (programm_code);


--
-- TOC entry 3350 (class 2606 OID 16547)
-- Name: enrollment enrollment_pkey; Type: CONSTRAINT; Schema: public;
Owner: root
--
```

```sql
ALTER TABLE ONLY public.enrollment
    ADD CONSTRAINT enrollment_pkey PRIMARY KEY (enrollment_id);


--
-- TOC entry 3366 (class 2606 OID 16611)
-- Name: group group_pkey; Type: CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public."group"
    ADD CONSTRAINT group_pkey PRIMARY KEY (group_id);


--
-- TOC entry 3352 (class 2606 OID 16559)
-- Name: programm_element
programm_element_enrollment_id_discipline_id_key; Type: CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.programm_element
    ADD CONSTRAINT programm_element_enrollment_id_discipline_id_key UNIQUE
(enrollment_id, discipline_id);


--
-- TOC entry 3354 (class 2606 OID 16557)
-- Name: programm_element programm_element_pkey; Type: CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.programm_element
    ADD CONSTRAINT programm_element_pkey PRIMARY KEY (programm_element_id);


--
-- TOC entry 3372 (class 2606 OID 16642)
-- Name: result result_pkey; Type: CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.result
    ADD CONSTRAINT result_pkey PRIMARY KEY (result_id);


--
-- TOC entry 3374 (class 2606 OID 16644)
-- Name: result result_student_id_programm_element_id_attempt_key; Type:
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.result
    ADD CONSTRAINT result_student_id_programm_element_id_attempt_key UNIQUE
(student_id, programm_element_id, attempt);


--
-- TOC entry 3344 (class 2606 OID 16521)
-- Name: specialty specialty_name_key; Type: CONSTRAINT; Schema: public;
Owner: root
```

```sql
--
ALTER TABLE ONLY public.specialty
    ADD CONSTRAINT specialty_name_key UNIQUE (name);


--
-- TOC entry 3346 (class 2606 OID 16519)
-- Name: specialty specialty_pkey; Type: CONSTRAINT; Schema: public;
Owner: root
--

ALTER TABLE ONLY public.specialty
    ADD CONSTRAINT specialty_pkey PRIMARY KEY (code);


--
-- TOC entry 3368 (class 2606 OID 16625)
-- Name: student student_client_id_group_id_key; Type: CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.student
    ADD CONSTRAINT student_client_id_group_id_key UNIQUE (client_id,
group_id);


--
-- TOC entry 3370 (class 2606 OID 16623)
-- Name: student student_pkey; Type: CONSTRAINT; Schema: public; Owner:
root
--

ALTER TABLE ONLY public.student
    ADD CONSTRAINT student_pkey PRIMARY KEY (student_id);


--
-- TOC entry 3340 (class 2606 OID 16512)
-- Name: subdivision subdivision_name_key; Type: CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.subdivision
    ADD CONSTRAINT subdivision_name_key UNIQUE (name);


--
-- TOC entry 3342 (class 2606 OID 16510)
-- Name: subdivision subdivision_pkey; Type: CONSTRAINT; Schema: public;
Owner: root
--

ALTER TABLE ONLY public.subdivision
    ADD CONSTRAINT subdivision_pkey PRIMARY KEY (subdivision_id);


--
-- TOC entry 3356 (class 2606 OID 16576)
```

```
--
-- Name: teacher teacher_pkey; Type: CONSTRAINT; Schema: public; Owner:
root
--

ALTER TABLE ONLY public.teacher
    ADD CONSTRAINT teacher_pkey PRIMARY KEY (teacher_id);


--
-- TOC entry 3358 (class 2606 OID 16581)
-- Name: teaching_permit teaching_permit_pkey; Type: CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.teaching_permit
    ADD CONSTRAINT teaching_permit_pkey PRIMARY KEY (teaching_permit_id);


--
-- TOC entry 3360 (class 2606 OID 16583)
-- Name: teaching_permit teaching_permit_teacher_id_discipline_id_key;
Type: CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.teaching_permit
    ADD CONSTRAINT teaching_permit_teacher_id_discipline_id_key UNIQUE
(teacher_id, discipline_id);


--
-- TOC entry 3415 (class 2620 OID 16729)
-- Name: class check_class_trigger; Type: TRIGGER; Schema: public; Owner:
root
--

CREATE TRIGGER check_class_trigger BEFORE INSERT OR UPDATE ON public.class
FOR EACH ROW EXECUTE FUNCTION public.check_class();


--
-- TOC entry 3410 (class 2620 OID 16617)
-- Name: group check_group_dates_trigger; Type: TRIGGER; Schema: public;
Owner: root
--

CREATE TRIGGER check_group_dates_trigger BEFORE INSERT OR UPDATE ON
public."group" FOR EACH ROW EXECUTE FUNCTION public.check_group_dates();


--
-- TOC entry 3412 (class 2620 OID 16657)
-- Name: result check_result_attempts_trigger; Type: TRIGGER; Schema:
public; Owner: root
--

CREATE TRIGGER check_result_attempts_trigger BEFORE INSERT OR UPDATE ON
public.result FOR EACH ROW EXECUTE FUNCTION
public.check_result_attempts();
```

```sql
--
-- TOC entry 3413 (class 2620 OID 16656)
-- Name: result check_result_date_trigger; Type: TRIGGER; Schema: public;
Owner: root
--

CREATE TRIGGER check_result_date_trigger BEFORE INSERT OR UPDATE ON
public.result FOR EACH ROW EXECUTE FUNCTION public.check_result_date();


--
-- TOC entry 3414 (class 2620 OID 16655)
-- Name: result check_result_mark_trigger; Type: TRIGGER; Schema: public;
Owner: root
--

CREATE TRIGGER check_result_mark_trigger BEFORE INSERT OR UPDATE ON
public.result FOR EACH ROW EXECUTE FUNCTION public.check_mark();


--
-- TOC entry 3411 (class 2620 OID 16636)
-- Name: group check_student_dates_trigger; Type: TRIGGER; Schema: public;
Owner: root
--

CREATE TRIGGER check_student_dates_trigger BEFORE INSERT OR UPDATE ON
public."group" FOR EACH ROW EXECUTE FUNCTION public.check_student_dates();


--
-- TOC entry 3394 (class 2606 OID 16565)
-- Name: programm_element academic_discipline_discipline_id_fkey; Type: FK
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.programm_element
    ADD CONSTRAINT academic_discipline_discipline_id_fkey FOREIGN KEY
(discipline_id) REFERENCES public.academic_discipline(discipline_id);


--
-- TOC entry 3396 (class 2606 OID 16589)
-- Name: teaching_permit academic_discipline_discipline_id_fkey; Type: FK
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.teaching_permit
    ADD CONSTRAINT academic_discipline_discipline_id_fkey FOREIGN KEY
(discipline_id) REFERENCES public.academic_discipline(discipline_id);


--
-- TOC entry 3403 (class 2606 OID 16674)
-- Name: classroom building_building_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.classroom
```

```sql
    ADD CONSTRAINT building_building_id_fkey FOREIGN KEY (building_id)
REFERENCES public.building(building_id);


--
-- TOC entry 3407 (class 2606 OID 16719)
-- Name: class classroom_classroom_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.class
    ADD CONSTRAINT classroom_classroom_id_fkey FOREIGN KEY (classroom_id)
REFERENCES public.classroom(classroom_id);


--
-- TOC entry 3399 (class 2606 OID 16626)
-- Name: student client_client_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.student
    ADD CONSTRAINT client_client_id_fkey FOREIGN KEY (client_id) REFERENCES
public.client(client_id);


--
-- TOC entry 3405 (class 2606 OID 16699)
-- Name: course_participant course_course_id_fkey; Type: FK CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.course_participant
    ADD CONSTRAINT course_course_id_fkey FOREIGN KEY (course_id) REFERENCES
public.course(course_id);


--
-- TOC entry 3408 (class 2606 OID 16714)
-- Name: class course_course_id_fkey; Type: FK CONSTRAINT; Schema: public;
Owner: root
--

ALTER TABLE ONLY public.class
    ADD CONSTRAINT course_course_id_fkey FOREIGN KEY (course_id) REFERENCES
public.course(course_id);


--
-- TOC entry 3393 (class 2606 OID 16548)
-- Name: enrollment education_programm_programm_code_fkey; Type: FK
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.enrollment
    ADD CONSTRAINT education_programm_programm_code_fkey FOREIGN KEY
(programm_code) REFERENCES public.education_programm(programm_code);


--
```

```sql
--
-- TOC entry 3395 (class 2606 OID 16560)
-- Name: programm_element enrollment_enrollment_id_fkey; Type: FK
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.programm_element
    ADD CONSTRAINT enrollment_enrollment_id_fkey FOREIGN KEY
(enrollment_id) REFERENCES public.enrollment(enrollment_id);


--
-- TOC entry 3398 (class 2606 OID 16612)
-- Name: group enrollment_enrollment_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public."group"
    ADD CONSTRAINT enrollment_enrollment_id_fkey FOREIGN KEY
(enrollment_id) REFERENCES public.enrollment(enrollment_id);


--
-- TOC entry 3400 (class 2606 OID 16631)
-- Name: student group_group_id_fkey; Type: FK CONSTRAINT; Schema: public;
Owner: root
--

ALTER TABLE ONLY public.student
    ADD CONSTRAINT group_group_id_fkey FOREIGN KEY (group_id) REFERENCES
public."group"(group_id);


--
-- TOC entry 3406 (class 2606 OID 16694)
-- Name: course_participant group_group_id_fkey; Type: FK CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.course_participant
    ADD CONSTRAINT group_group_id_fkey FOREIGN KEY (group_id) REFERENCES
public."group"(group_id);


--
-- TOC entry 3404 (class 2606 OID 16684)
-- Name: course programm_element_programm_element_id_fkey; Type: FK
CONSTRAINT; Schema: public; Owner: root
--

ALTER TABLE ONLY public.course
    ADD CONSTRAINT programm_element_programm_element_id_fkey FOREIGN KEY
(programm_element_id) REFERENCES
public.programm_element(programm_element_id);


--
-- TOC entry 3392 (class 2606 OID 16535)
-- Name: education_programm specialty_code_fkey; Type: FK CONSTRAINT;
Schema: public; Owner: root
--
```

```sql
ALTER TABLE ONLY public.education_programm
    ADD CONSTRAINT specialty_code_fkey FOREIGN KEY (specialty_code)
REFERENCES public.specialty(code);


--
-- TOC entry 3401 (class 2606 OID 16645)
-- Name: result student_student_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.result
    ADD CONSTRAINT student_student_id_fkey FOREIGN KEY (student_id)
REFERENCES public.student(student_id);


--
-- TOC entry 3391 (class 2606 OID 16522)
-- Name: specialty subdivision_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.specialty
    ADD CONSTRAINT subdivision_id_fkey FOREIGN KEY (subdivision_id)
REFERENCES public.subdivision(subdivision_id);


--
-- TOC entry 3397 (class 2606 OID 16584)
-- Name: teaching_permit teacher_teacher_id_fkey; Type: FK CONSTRAINT;
Schema: public; Owner: root
--

ALTER TABLE ONLY public.teaching_permit
    ADD CONSTRAINT teacher_teacher_id_fkey FOREIGN KEY (teacher_id)
REFERENCES public.teacher(teacher_id);


--
-- TOC entry 3402 (class 2606 OID 16650)
-- Name: result teacher_teacher_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.result
    ADD CONSTRAINT teacher_teacher_id_fkey FOREIGN KEY (teacher_id)
REFERENCES public.teacher(teacher_id);


--
-- TOC entry 3409 (class 2606 OID 16724)
-- Name: class teacher_teacher_id_fkey; Type: FK CONSTRAINT; Schema:
public; Owner: root
--

ALTER TABLE ONLY public.class
    ADD CONSTRAINT teacher_teacher_id_fkey FOREIGN KEY (teacher_id)
REFERENCES public.teacher(teacher_id);
```

```
-- Completed on 2023-11-06 18:22:15 UTC

--                                          35
--
-- PostgreSQL database dump complete
--
```

Вывод

В ходе лабораторной работы я научился создавать, заполнять и восстанавливать базы данных PostgreSQL с использованием pgadmin, а также без него. Была создана база данных с таблицами, триггерами и типами данных в соответствии с заданием. Были созданы необходимые связи и ограничения, в том числе триггеры. Было создано две резервные копии.