Министерство науки и высшего образования Российской Федерации

федеральное государственное автономное образовательное учреждение высшего образования

«НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО»

Отчет

по лабораторной работе «Создание таблиц базы данных PostgreSQL.

Заполнение таблиц рабочими данными» по дисциплине «Базы данных»

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

Оборудование: компьютерный класс.

Программное обеспечение: СУБД PostgreSQL 1X, pgAdmin 4.

Практическое задание:

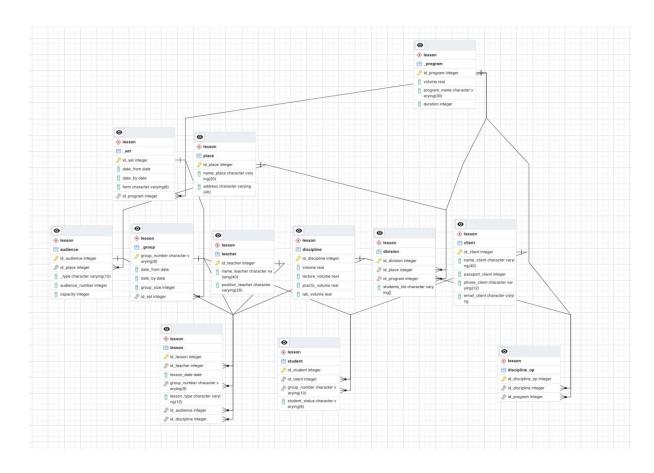
- 1. Создать базу данных с использованием pgAdmin 4 (согласно индивидуальному заданию).
- 2. Создать схему в составе базы данных.
- 3. Создать таблицы базы данных.
- 4. Установить ограничения на данные: *Primary Key, Unique, Check, Foreign Key*.
- 5. Заполнить таблицы БД рабочими данными.
- 6. Создать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

Создаем новую базу данных, далее при помощи написания скрипта в Query Tool создаем таблицы вместе с ограничениями CHECK, PRIMARY KEY, FOREIGN KEY.

3. Заполнение таблиц рабочими данными:

В том же Query Tool при помощи INSERT заполняем данными таблицы.

4. Логическая схема базы данных:



5. Создание резервной копии базы данных:

При помощи функции Backup создаем две резервные копии одна с расширением CUSTOM для восстановления БД, а вторая с расширением PLAIN для листинга в отчете. Ниже приведены вырезки из резервной копии.

```
CREATE TABLE lesson._group (
group_number character varying(9) NOT NULL,
date_from date NOT NULL,
date_by date NOT NULL,
group_size integer NOT NULL,
id_set integer NOT NULL,
CONSTRAINT _group_check CHECK ((date_from >= date_by)),
CONSTRAINT _group_check1 CHECK ((date_by <= date_from)),
CONSTRAINT _group_group_size_check CHECK (((0 < group_size) AND (group_size < 50)))
```

```
);
```

```
ALTER TABLE lesson._group OWNER TO postgres;
-- TOC entry 218 (class 1259 OID 16805)
-- Name: _program; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson._program (
  id_program integer NOT NULL,
  volume real NOT NULL,
  program_name character varying(30) NOT NULL,
  duration integer NOT NULL,
  CONSTRAINT _program_duration_check CHECK ((duration > 0)),
  CONSTRAINT _program_program_name_check CHECK (((program_name)::text ~
'^[A-Яа-я]+$'::text)),
  CONSTRAINT _program_volume_check CHECK ((volume > (0)::double precision))
);
ALTER TABLE lesson._program OWNER TO postgres;
-- TOC entry 217 (class 1259 OID 16804)
-- Name: _program_id_program_seq; Type: SEQUENCE; Schema: lesson; Owner:
postgres
```

```
CREATE SEQUENCE lesson._program_id_program_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson._program_id_program_seq OWNER TO postgres;
-- TOC entry 3912 (class 0 OID 0)
-- Dependencies: 217
-- Name: _program_id_program_seq; Type: SEQUENCE OWNED BY; Schema: lesson;
Owner: postgres
ALTER SEQUENCE lesson._program_id_program_seq OWNED BY
lesson._program.id_program;
-- TOC entry 220 (class 1259 OID 16815)
-- Name: _set; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson._set (
```

```
id_set integer NOT NULL,
  date_from date NOT NULL,
  date_by date NOT NULL,
  form character varying(6) NOT NULL,
  id_program integer NOT NULL,
  CONSTRAINT _set_check CHECK ((date_from >= date_by)),
  CONSTRAINT _set_check1 CHECK ((date_by <= date_from)),
  CONSTRAINT _set_form_check CHECK (((form)::text = ANY
((ARRAY['Очно'::character varying, 'Заочно'::character varying])::text[])))
);
ALTER TABLE lesson._set OWNER TO postgres;
-- TOC entry 219 (class 1259 OID 16814)
-- Name: _set_id_set_seq; Type: SEQUENCE; Schema: lesson; Owner: postgres
CREATE SEQUENCE lesson._set_id_set_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
```

```
-- TOC entry 3913 (class 0 OID 0)
-- Dependencies: 219
-- Name: _set_id_set_seq; Type: SEQUENCE OWNED BY; Schema: lesson; Owner:
postgres
ALTER SEQUENCE lesson._set_id_set_seq OWNED BY lesson._set.id_set;
-- TOC entry 235 (class 1259 OID 16925)
-- Name: audience; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson.audience (
  id_audience integer NOT NULL,
  id_place integer NOT NULL,
  _type character varying(12) NOT NULL,
  audience_number integer NOT NULL,
  capacity integer NOT NULL,
  CONSTRAINT audience_type_check CHECK (((_type)::text = ANY
((ARRAY['Лабораторная'::character varying, 'Лекция'::character varying,
'Практика'::character varying])::text[]))),
  CONSTRAINT audience_audience_number_check CHECK ((audience_number > 0)),
  CONSTRAINT audience_capacity_check CHECK ((capacity > 0))
);
```

ALTER TABLE lesson.audience OWNER TO postgres;

lesson.audience.id audience;

```
-- TOC entry 234 (class 1259 OID 16924)
-- Name: audience_id_audience_seq; Type: SEQUENCE; Schema: lesson; Owner:
postgres
CREATE SEQUENCE lesson.audience_id_audience_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson.audience_id_audience_seq OWNER TO postgres;
-- TOC entry 3914 (class 0 OID 0)
-- Dependencies: 234
-- Name: audience_id_audience_seq; Type: SEQUENCE OWNED BY; Schema: lesson;
Owner: postgres
ALTER SEQUENCE lesson.audience_id_audience_seq OWNED BY
```

```
-- TOC entry 216 (class 1259 OID 16794)
-- Name: client; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson.client (
  id_client integer NOT NULL,
  name_client character varying(40) NOT NULL,
  passport_client integer NOT NULL,
  phone_client character varying(12) NOT NULL,
  email_client character varying NOT NULL,
  CONSTRAINT client_name_client_check CHECK (((name_client)::text ~ '^[A-Яа-
я]+$'::text)),
  CONSTRAINT client_passport_client_check CHECK ((passport_client > 0))
);
ALTER TABLE lesson.client OWNER TO postgres;
-- TOC entry 215 (class 1259 OID 16793)
-- Name: client_id_client_seq; Type: SEQUENCE; Schema: lesson; Owner: postgres
CREATE SEQUENCE lesson.client_id_client_seq
  AS integer
  START WITH 1
```

```
INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson.client_id_client_seq OWNER TO postgres;
-- TOC entry 3915 (class 0 OID 0)
-- Dependencies: 215
-- Name: client_id_client_seq; Type: SEQUENCE OWNED BY; Schema: lesson;
Owner: postgres
ALTER SEQUENCE lesson.client_id_client_seq OWNED BY lesson.client.id_client;
-- TOC entry 225 (class 1259 OID 16861)
-- Name: discipline; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson.discipline (
  id_discipline integer NOT NULL,
  volume real NOT NULL,
  lecture_volume real NOT NULL,
  practic_volume real NOT NULL,
  lab_volume real NOT NULL,
```

```
CONSTRAINT discipline_volume_check CHECK ((volume > (0)::double precision)),
  CONSTRAINT discipline_volume_check1 CHECK ((volume > (0)::double
precision)),
  CONSTRAINT discipline_volume_check2 CHECK ((volume > (0)::double
precision)),
  CONSTRAINT discipline_volume_check3 CHECK ((volume > (0)::double
precision))
);
ALTER TABLE lesson.discipline OWNER TO postgres;
-- TOC entry 224 (class 1259 OID 16860)
-- Name: discipline_id_discipline_seq; Type: SEQUENCE; Schema: lesson; Owner:
postgres
CREATE SEQUENCE lesson.discipline_id_discipline_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson.discipline_id_discipline_seq OWNER TO postgres;
```

```
-- TOC entry 3916 (class 0 OID 0)
-- Dependencies: 224
-- Name: discipline_id_discipline_seq; Type: SEQUENCE OWNED BY; Schema:
lesson; Owner: postgres
ALTER SEQUENCE lesson.discipline_id_discipline_seq OWNED BY
lesson.discipline.id_discipline;
-- TOC entry 227 (class 1259 OID 16872)
-- Name: discipline_op; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson.discipline_op (
  id_discipline_op integer NOT NULL,
  id_discipline integer NOT NULL,
  id_program integer NOT NULL
);
ALTER TABLE lesson.discipline_op OWNER TO postgres;
-- TOC entry 226 (class 1259 OID 16871)
-- Name: discipline_op_id_discipline_op_seq; Type: SEQUENCE; Schema: lesson;
Owner: postgres
```

```
CREATE SEQUENCE lesson.discipline_op_id_discipline_op_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson.discipline_op_id_discipline_op_seq OWNER TO postgres;
-- TOC entry 3917 (class 0 OID 0)
-- Dependencies: 226
-- Name: discipline_op_id_discipline_op_seq; Type: SEQUENCE OWNED BY;
Schema: lesson; Owner: postgres
ALTER SEQUENCE lesson.discipline_op_id_discipline_op_seq OWNED BY
lesson.discipline_op.id_discipline_op;
-- TOC entry 233 (class 1259 OID 16906)
-- Name: division; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson.division (
```

```
id_division integer NOT NULL,
  id_place integer NOT NULL,
  id_program integer NOT NULL,
  students_list character varying[] NOT NULL
);
ALTER TABLE lesson.division OWNER TO postgres;
-- TOC entry 232 (class 1259 OID 16905)
-- Name: division_id_division_seq; Type: SEQUENCE; Schema: lesson; Owner:
postgres
CREATE SEQUENCE lesson.division_id_division_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson.division_id_division_seq OWNER TO postgres;
-- TOC entry 3918 (class 0 OID 0)
-- Dependencies: 232
```

```
-- Name: division_id_division_seq; Type: SEQUENCE OWNED BY; Schema: lesson;
Owner: postgres
ALTER SEQUENCE lesson.division_id_division_seq OWNED BY
lesson.division.id_division;
-- TOC entry 237 (class 1259 OID 16940)
-- Name: lesson; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson.lesson (
  id_lesson integer NOT NULL,
  id_teacher integer NOT NULL,
  lesson_date date NOT NULL,
  group_number character varying(9) NOT NULL,
  lesson_type character varying(12) NOT NULL,
  id_audience integer NOT NULL,
  id_discipline integer NOT NULL,
  CONSTRAINT lesson_lesson_type_check CHECK (((lesson_type)::text = ANY
((ARRAY['Лабораторная'::character varying, 'Лекция'::character varying,
'Практика'::character varying])::text[])))
);
ALTER TABLE lesson.lesson OWNER TO postgres;
```

--

```
-- TOC entry 236 (class 1259 OID 16939)
-- Name: lesson_id_lesson_seq; Type: SEQUENCE; Schema: lesson; Owner: postgres
CREATE SEQUENCE lesson_id_lesson_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson_id_lesson_seq OWNER TO postgres;
-- TOC entry 3919 (class 0 OID 0)
-- Dependencies: 236
-- Name: lesson_id_lesson_seq; Type: SEQUENCE OWNED BY; Schema: lesson;
Owner: postgres
ALTER SEQUENCE lesson.lesson_id_lesson_seq OWNED BY lesson.lesson.id_lesson;
-- TOC entry 231 (class 1259 OID 16898)
-- Name: place; Type: TABLE; Schema: lesson; Owner: postgres
```

```
CREATE TABLE lesson.place (
  id_place integer NOT NULL,
  name_place character varying(20) NOT NULL,
  address character varying(40) NOT NULL,
  CONSTRAINT place_name_place_check CHECK (((name_place)::text ~ '^[A-Яа-
я]+$'::text))
);
ALTER TABLE lesson.place OWNER TO postgres;
-- TOC entry 230 (class 1259 OID 16897)
-- Name: place_id_place_seq; Type: SEQUENCE; Schema: lesson; Owner: postgres
CREATE SEQUENCE lesson.place_id_place_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson.place_id_place_seq OWNER TO postgres;
```

```
-- TOC entry 3920 (class 0 OID 0)
-- Dependencies: 230
-- Name: place_id_place_seq; Type: SEQUENCE OWNED BY; Schema: lesson; Owner:
postgres
ALTER SEQUENCE lesson.place_id_place_seq OWNED BY lesson.place.id_place;
-- TOC entry 223 (class 1259 OID 16843)
-- Name: student; Type: TABLE; Schema: lesson; Owner: postgres
CREATE TABLE lesson.student (
  id_student integer NOT NULL,
  id_client integer NOT NULL,
  group_number character varying(10) NOT NULL,
  student_status character varying(8) NOT NULL,
  CONSTRAINT student_status_check CHECK (((student_status)::text = ANY
((ARRAY['Зачислен'::character varying, 'Отчислен'::character varying])::text[])))
);
ALTER TABLE lesson.student OWNER TO postgres;
-- TOC entry 222 (class 1259 OID 16842)
-- Name: student_id_student_seq; Type: SEQUENCE; Schema: lesson; Owner: postgres
```

--

```
CREATE SEQUENCE lesson.student_id_student_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lesson.student_id_student_seq OWNER TO postgres;
-- TOC entry 3921 (class 0 OID 0)
-- Dependencies: 222
-- Name: student_id_student_seq; Type: SEQUENCE OWNED BY; Schema: lesson;
Owner: postgres
ALTER SEQUENCE lesson.student_id_student_seq OWNED BY
lesson.student.id_student;
-- TOC entry 229 (class 1259 OID 16889)
-- Name: teacher; Type: TABLE; Schema: lesson; Owner: postgres
```

```
CREATE TABLE lesson.teacher (
  id_teacher integer NOT NULL,
  name_teacher character varying(40) NOT NULL,
  position_teacher character varying(20) NOT NULL,
  CONSTRAINT teacher_name_teacher_check CHECK (((name_teacher)::text ~ '^[A-
Яа-я]+$'::text)),
  CONSTRAINT teacher_position_teacher_check CHECK (((position_teacher)::text ~
'^[A-Яа-я]+$'::text))
);
ALTER TABLE lesson.teacher OWNER TO postgres;
-- TOC entry 228 (class 1259 OID 16888)
-- Name: teacher_id_teacher_seq; Type: SEQUENCE; Schema: lesson; Owner: postgres
CREATE SEQUENCE lesson.teacher_id_teacher_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
```

ALTER TABLE lesson.teacher_id_teacher_seq OWNER TO postgres;

```
-- TOC entry 3922 (class 0 OID 0)
-- Dependencies: 228
-- Name: teacher_id_teacher_seq; Type: SEQUENCE OWNED BY; Schema: lesson;
Owner: postgres
ALTER SEQUENCE lesson.teacher_id_teacher_seq OWNED BY
lesson.teacher.id_teacher;
-- TOC entry 244 (class 1259 OID 17021)
-- Name: _group; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons._group (
  group_number character varying(9) NOT NULL,
  date_from date NOT NULL,
  date_by date NOT NULL,
  group_size integer NOT NULL,
  id_set integer NOT NULL,
  CONSTRAINT _group_check CHECK ((date_from >= date_by)),
  CONSTRAINT _group_check1 CHECK ((date_by <= date_from)),
  CONSTRAINT _group_group_size_check CHECK (((0 < group_size) AND
(group\_size < 50)))
);
```

```
ALTER TABLE lessons._group OWNER TO postgres;
-- TOC entry 241 (class 1259 OID 16997)
-- Name: _program; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons._program (
  id_program integer NOT NULL,
  volume real NOT NULL,
  program_name character varying(30) NOT NULL,
  duration integer NOT NULL,
  CONSTRAINT _program_duration_check CHECK ((duration > 0)),
  CONSTRAINT _program_program_name_check CHECK (((program_name)::text ~
'^[A-Яа-я]+$'::text)),
  CONSTRAINT _program_volume_check CHECK ((volume > (0)::double precision))
);
ALTER TABLE lessons._program OWNER TO postgres;
-- TOC entry 240 (class 1259 OID 16996)
-- Name: _program_id_program_seq; Type: SEQUENCE; Schema: lessons; Owner:
postgres
```

CREATE SEQUENCE lessons._program_id_program_seq

AS integer

```
START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons._program_id_program_seq OWNER TO postgres;
-- TOC entry 3925 (class 0 OID 0)
-- Dependencies: 240
-- Name: _program_id_program_seq; Type: SEQUENCE OWNED BY; Schema:
lessons; Owner: postgres
ALTER SEQUENCE lessons._program_id_program_seq OWNED BY
lessons._program.id_program;
-- TOC entry 243 (class 1259 OID 17007)
-- Name: _set; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons._set (
  id_set integer NOT NULL,
  date_from date NOT NULL,
  date_by date NOT NULL,
```

```
form character varying(6) NOT NULL,
  id_program integer NOT NULL,
  CONSTRAINT _set_check CHECK ((date_from >= date_by)),
  CONSTRAINT _set_check1 CHECK ((date_by <= date_from)),
  CONSTRAINT _set_form_check CHECK (((form)::text = ANY
((ARRAY['Очно'::character varying, 'Заочно'::character varying])::text[])))
);
ALTER TABLE lessons._set OWNER TO postgres;
-- TOC entry 242 (class 1259 OID 17006)
-- Name: _set_id_set_seq; Type: SEQUENCE; Schema: lessons; Owner: postgres
CREATE SEQUENCE lessons._set_id_set_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons._set_id_set_seq OWNER TO postgres;
-- TOC entry 3927 (class 0 OID 0)
```

```
-- Dependencies: 242
-- Name: _set_id_set_seq; Type: SEQUENCE OWNED BY; Schema: lessons; Owner:
postgres
ALTER SEQUENCE lessons._set_id_set_seq OWNED BY lessons._set.id_set;
-- TOC entry 258 (class 1259 OID 17117)
-- Name: audience; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons.audience (
  id_audience integer NOT NULL,
  id_place integer NOT NULL,
  _type character varying(12) NOT NULL,
  audience_number integer NOT NULL,
  capacity integer NOT NULL,
  CONSTRAINT audience_type_check CHECK (((_type)::text = ANY
((ARRAY['Лабораторная'::character varying, 'Лекция'::character varying,
'Практика'::character varying])::text[]))),
  CONSTRAINT audience_audience_number_check CHECK ((audience_number > 0)),
  CONSTRAINT audience_capacity_check CHECK ((capacity > 0))
);
```

ALTER TABLE lessons.audience OWNER TO postgres;

```
-- TOC entry 257 (class 1259 OID 17116)
-- Name: audience_id_audience_seq; Type: SEQUENCE; Schema: lessons; Owner:
postgres
CREATE SEQUENCE lessons.audience_id_audience_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons.audience_id_audience_seq OWNER TO postgres;
-- TOC entry 3929 (class 0 OID 0)
-- Dependencies: 257
-- Name: audience_id_audience_seq; Type: SEQUENCE OWNED BY; Schema: lessons;
Owner: postgres
ALTER SEQUENCE lessons.audience_id_audience_seq OWNED BY
lessons.audience.id_audience;
```

```
-- TOC entry 239 (class 1259 OID 16986)
-- Name: client; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons.client (
  id_client integer NOT NULL,
  name_client character varying(40) NOT NULL,
  passport_client integer NOT NULL,
  phone_client character varying(12) NOT NULL,
  email_client character varying NOT NULL,
  CONSTRAINT client_name_client_check CHECK (((name_client)::text ~ '^[A-Яа-
\pi]+$'::text)),
  CONSTRAINT client_passport_client_check CHECK ((passport_client > 0))
);
ALTER TABLE lessons.client OWNER TO postgres;
-- TOC entry 238 (class 1259 OID 16985)
-- Name: client_id_client_seq; Type: SEQUENCE; Schema: lessons; Owner: postgres
CREATE SEQUENCE lessons.client_id_client_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
```

```
ALTER TABLE lessons.client_id_client_seq OWNER TO postgres;
-- TOC entry 3931 (class 0 OID 0)
-- Dependencies: 238
-- Name: client_id_client_seq; Type: SEQUENCE OWNED BY; Schema: lessons;
Owner: postgres
ALTER SEQUENCE lessons.client_id_client_seq OWNED BY lessons.client.id_client;
-- TOC entry 248 (class 1259 OID 17053)
-- Name: discipline; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons.discipline (
  id_discipline integer NOT NULL,
  volume real NOT NULL,
  lecture_volume real NOT NULL,
  practic_volume real NOT NULL,
  lab_volume real NOT NULL,
  CONSTRAINT discipline_volume_check CHECK ((volume > (0)::double precision)),
  CONSTRAINT discipline_volume_check1 CHECK ((volume > (0)::double
precision)),
```

CACHE 1;

```
CONSTRAINT discipline_volume_check2 CHECK ((volume > (0)::double
precision)),
  CONSTRAINT discipline_volume_check3 CHECK ((volume > (0)::double
precision))
);
ALTER TABLE lessons.discipline OWNER TO postgres;
-- TOC entry 247 (class 1259 OID 17052)
-- Name: discipline_id_discipline_seq; Type: SEQUENCE; Schema: lessons; Owner:
postgres
CREATE SEQUENCE lessons.discipline_id_discipline_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons.discipline_id_discipline_seq OWNER TO postgres;
-- TOC entry 3933 (class 0 OID 0)
-- Dependencies: 247
```

```
-- Name: discipline_id_discipline_seq; Type: SEQUENCE OWNED BY; Schema:
lessons; Owner: postgres
ALTER SEQUENCE lessons.discipline_id_discipline_seq OWNED BY
lessons.discipline.id_discipline;
-- TOC entry 250 (class 1259 OID 17064)
-- Name: discipline_op; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons.discipline_op (
  id_discipline_op integer NOT NULL,
  id_discipline integer NOT NULL,
  id_program integer NOT NULL
);
ALTER TABLE lessons.discipline_op OWNER TO postgres;
-- TOC entry 249 (class 1259 OID 17063)
-- Name: discipline_op_id_discipline_op_seq; Type: SEQUENCE; Schema: lessons;
Owner: postgres
CREATE SEQUENCE lessons.discipline_op_id_discipline_op_seq
```

```
AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons.discipline_op_id_discipline_op_seq OWNER TO postgres;
-- TOC entry 3935 (class 0 OID 0)
-- Dependencies: 249
-- Name: discipline_op_id_discipline_op_seq; Type: SEQUENCE OWNED BY;
Schema: lessons; Owner: postgres
ALTER SEQUENCE lessons.discipline_op_id_discipline_op_seq OWNED BY
lessons.discipline_op.id_discipline_op;
-- TOC entry 256 (class 1259 OID 17098)
-- Name: division; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons.division (
  id_division integer NOT NULL,
  id_place integer NOT NULL,
```

```
id_program integer NOT NULL,
  students_list character varying[] NOT NULL
);
ALTER TABLE lessons.division OWNER TO postgres;
-- TOC entry 255 (class 1259 OID 17097)
-- Name: division_id_division_seq; Type: SEQUENCE; Schema: lessons; Owner:
postgres
CREATE SEQUENCE lessons.division_id_division_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons.division_id_division_seq OWNER TO postgres;
-- TOC entry 3937 (class 0 OID 0)
-- Dependencies: 255
-- Name: division_id_division_seq; Type: SEQUENCE OWNED BY; Schema: lessons;
Owner: postgres
```

```
--
```

```
ALTER SEQUENCE lessons.division_id_division_seq OWNED BY
lessons.division.id_division;
-- TOC entry 260 (class 1259 OID 17132)
-- Name: lesson; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons.lesson (
  id_lesson integer NOT NULL,
  id_teacher integer NOT NULL,
  lesson_date date NOT NULL,
  group_number character varying(9) NOT NULL,
  lesson_type character varying(12) NOT NULL,
  id_audience integer NOT NULL,
  id_discipline integer NOT NULL,
  CONSTRAINT lesson_lesson_type_check CHECK (((lesson_type)::text = ANY
((ARRAY['Лабораторная'::character varying, 'Лекция'::character varying,
'Практика'::character varying])::text[])))
);
ALTER TABLE lessons.lesson OWNER TO postgres;
-- TOC entry 259 (class 1259 OID 17131)
```

```
-- Name: lesson_id_lesson_seq; Type: SEQUENCE; Schema: lessons; Owner: postgres
CREATE SEQUENCE lessons.lesson_id_lesson_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons.lesson_id_lesson_seq OWNER TO postgres;
-- TOC entry 3939 (class 0 OID 0)
-- Dependencies: 259
-- Name: lesson_id_lesson_seq; Type: SEQUENCE OWNED BY; Schema: lessons;
Owner: postgres
ALTER SEQUENCE lessons.lesson_id_lesson_seq OWNED BY
lessons.lesson.id_lesson;
-- TOC entry 254 (class 1259 OID 17090)
-- Name: place; Type: TABLE; Schema: lessons; Owner: postgres
```

```
CREATE TABLE lessons.place (
  id_place integer NOT NULL,
  name_place character varying(20) NOT NULL,
  address character varying(40) NOT NULL,
  CONSTRAINT place_name_place_check CHECK (((name_place)::text ~ '^[A-Яа-
я]+$'::text))
);
ALTER TABLE lessons.place OWNER TO postgres;
-- TOC entry 253 (class 1259 OID 17089)
-- Name: place_id_place_seq; Type: SEQUENCE; Schema: lessons; Owner: postgres
CREATE SEQUENCE lessons.place_id_place_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons.place_id_place_seq OWNER TO postgres;
```

```
-- TOC entry 3941 (class 0 OID 0)
-- Dependencies: 253
-- Name: place_id_place_seq; Type: SEQUENCE OWNED BY; Schema: lessons;
Owner: postgres
ALTER SEQUENCE lessons.place_id_place_seq OWNED BY lessons.place.id_place;
-- TOC entry 246 (class 1259 OID 17035)
-- Name: student; Type: TABLE; Schema: lessons; Owner: postgres
CREATE TABLE lessons.student (
  id_student integer NOT NULL,
  id_client integer NOT NULL,
  group_number character varying(10) NOT NULL,
  student_status character varying(8) NOT NULL,
  CONSTRAINT student_student_status_check CHECK (((student_status)::text = ANY
((ARRAY['Зачислен'::character varying, 'Отчислен'::character varying])::text[])))
);
ALTER TABLE lessons.student OWNER TO postgres;
-- TOC entry 245 (class 1259 OID 17034)
-- Name: student_id_student_seq; Type: SEQUENCE; Schema: lessons; Owner: postgres
```

--

```
CREATE SEQUENCE lessons.student_id_student_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE lessons.student_id_student_seq OWNER TO postgres;
-- TOC entry 3943 (class 0 OID 0)
-- Dependencies: 245
-- Name: student_id_student_seq; Type: SEQUENCE OWNED BY; Schema: lessons;
Owner: postgres
ALTER SEQUENCE lessons.student_id_student_seq OWNED BY
lessons.student.id_student;
-- TOC entry 252 (class 1259 OID 17081)
-- Name: teacher; Type: TABLE; Schema: lessons; Owner: postgres
```

```
CREATE TABLE lessons.teacher (
  id_teacher integer NOT NULL,
  name_teacher character varying(40) NOT NULL,
  position_teacher character varying(20) NOT NULL,
  CONSTRAINT teacher_name_teacher_check CHECK (((name_teacher)::text ~ '^[A-
Яа-я]+$'::text)),
  CONSTRAINT teacher_position_teacher_check CHECK (((position_teacher)::text ~
'^[A-Яа-я]+$'::text))
);
ALTER TABLE lessons.teacher OWNER TO postgres;
-- TOC entry 251 (class 1259 OID 17080)
-- Name: teacher_id_teacher_seq; Type: SEQUENCE; Schema: lessons; Owner: postgres
CREATE SEQUENCE lessons.teacher_id_teacher_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
```

ALTER TABLE lessons.teacher_id_teacher_seq OWNER TO postgres;

```
-- TOC entry 3945 (class 0 OID 0)
-- Dependencies: 251
-- Name: teacher_id_teacher_seq; Type: SEQUENCE OWNED BY; Schema: lessons;
Owner: postgres
ALTER SEQUENCE lessons.teacher_id_teacher_seq OWNED BY
lessons.teacher.id_teacher;
-- TOC entry 3577 (class 2604 OID 16808)
-- Name: _program id_program; Type: DEFAULT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson._program ALTER COLUMN id_program SET
DEFAULT nextval('lesson._program_id_program_seq'::regclass);
-- TOC entry 3578 (class 2604 OID 16818)
-- Name: _set id_set; Type: DEFAULT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson._set ALTER COLUMN id_set SET DEFAULT
nextval('lesson._set_id_set_seq'::regclass);
```

__

TOC entry 3585 (class 2604 OID 16928)
Name: audience id_audience; Type: DEFAULT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.audience ALTER COLUMN id_audience SET
DEFAULT nextval('lesson.audience_id_audience_seq'::regclass);
TOC entry 3576 (class 2604 OID 16797)
Name: client id_client; Type: DEFAULT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.client ALTER COLUMN id_client SET DEFAULT nextval('lesson.client_id_client_seq'::regclass);
non-, m(10000monon-in-on
TOC entry 3580 (class 2604 OID 16864)
Name: discipline id_discipline; Type: DEFAULT; Schema: lesson; Owner: postgres
rvanie. discipline id_discipline, Type. DEI 710E1, Schema. lesson, Owner. posigies
ALTER TABLE ONLY lesson.discipline ALTER COLUMN id_discipline SET
DEFAULT nextval('lesson.discipline_id_discipline_seq'::regclass);
TOC entry 3581 (class 2604 OID 16875)
Name: discipline_op id_discipline_op; Type: DEFAULT; Schema: lesson; Owner: postgres

ALTER TABLE ONLY lesson.discipline_op ALTER COLUMN id_discipline_op SET DEFAULT nextval('lesson.discipline_op_id_discipline_op_seq'::regclass);
TOC entry 3584 (class 2604 OID 16909)
Name: division id_division; Type: DEFAULT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.division ALTER COLUMN id_division SET DEFAULT nextval('lesson.division_id_division_seq'::regclass);
TOC entry 3586 (class 2604 OID 16943)
Name: lesson id_lesson; Type: DEFAULT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.lesson ALTER COLUMN id_lesson SET DEFAULT nextval('lesson.lesson_id_lesson_seq'::regclass);
TOC entry 3583 (class 2604 OID 16901)
Name: place id_place; Type: DEFAULT; Schema: lesson; Owner: postgres

TOC entry 3579 (class 2604 OID 16846)
Name: student id_student; Type: DEFAULT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.student ALTER COLUMN id_student SET DEFAULT nextval('lesson.student_id_student_seq'::regclass);
TOC entry 3582 (class 2604 OID 16892)
Name: teacher id_teacher; Type: DEFAULT; Schema: lesson; Owner: postgres

ALTER TABLE ONLY lesson.teacher ALTER COLUMN id_teacher SET DEFAULT nextval('lesson.teacher_id_teacher_seq'::regclass);
TOC entry 3588 (class 2604 OID 17000)
Name: _program id_program; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessonsprogram ALTER COLUMN id_program SET DEFAULT nextval('lessonsprogram_id_program_seq'::regclass);

ALTER TABLE ONLY lesson.place ALTER COLUMN id_place SET DEFAULT

nextval('lesson.place_id_place_seq'::regclass);

```
-- TOC entry 3589 (class 2604 OID 17162)
-- Name: _set id_set; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons._set ALTER COLUMN id_set SET DEFAULT
nextval('lessons._set_id_set_seq'::regclass);
-- TOC entry 3596 (class 2604 OID 17120)
-- Name: audience id_audience; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.audience ALTER COLUMN id_audience SET
DEFAULT nextval('lessons.audience_id_audience_seq'::regclass);
-- TOC entry 3587 (class 2604 OID 16989)
-- Name: client id_client; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.client ALTER COLUMN id_client SET DEFAULT
nextval('lessons.client_id_client_seq'::regclass);
```

TOC entry 3591 (class 2604 OID 17056)
Name: discipline id_discipline; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.discipline ALTER COLUMN id_discipline SET
DEFAULT nextval('lessons.discipline_id_discipline_seq'::regclass);
-
TOC entry 3592 (class 2604 OID 17067)
Name: discipline_op id_discipline_op; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.discipline_op ALTER COLUMN id_discipline_op SET DEFAULT nextval('lessons.discipline_op_id_discipline_op_seq'::regclass);
TOC entry 3595 (class 2604 OID 17101)
Name: division id_division; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.division ALTER COLUMN id_division SET DEFAULT nextval('lessons.division_id_division_seq'::regclass);
TOC entry 3597 (class 2604 OID 17135)
Name: lesson id_lesson; Type: DEFAULT; Schema: lessons; Owner: postgres

ALTER TABLE ONLY lessons.lesson ALTER COLUMN id_lesson SET DEFAULT nextval('lessons.lesson_id_lesson_seq'::regclass);
TOC entry 3594 (class 2604 OID 17093)
Name: place id_place; Type: DEFAULT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.place ALTER COLUMN id_place SET DEFAULT nextval('lessons.place_id_place_seq'::regclass);
TOC entry 3590 (class 2604 OID 17038)
Name: student id_student; Type: DEFAULT; Schema: lessons; Owner: postgres

$ALTER\ TABLE\ ONLY\ less ons. student\ ALTER\ COLUMN\ id_student\ SET\ DEFAULT\\ next val ('less ons. student_id_student_seq'::regclass);$
TOC entry 3593 (class 2604 OID 17084)
Name: teacher id_teacher; Type: DEFAULT; Schema: lessons; Owner: postgres

ALTER TABLE ONLY lessons.teacher ALTER COLUMN id_teacher SET DEFAULT nextval('lessons.teacher_id_teacher_seq'::regclass);

```
-- TOC entry 3866 (class 0 OID 16829)
-- Dependencies: 221
-- Data for Name: _group; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson._group (group_number, date_from, date_by, group_size, id_set) FROM
stdin;
K32391 2023-06-29
                       2022-09-01
                                    40
                                           1
-- TOC entry 3863 (class 0 OID 16805)
-- Dependencies: 218
-- Data for Name: _program; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson._program (id_program, volume, program_name, duration) FROM stdin;
                Русский
123
         34.5
                              100
-- TOC entry 3865 (class 0 OID 16815)
```

```
-- Dependencies: 220
-- Data for Name: _set; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson._set (id_set, date_from, date_by, form, id_program) FROM stdin;
1 2019-12-01 2019-01-10 Очно 123
\.
-- TOC entry 3880 (class 0 OID 16925)
-- Dependencies: 235
-- Data for Name: audience; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson.audience (id_audience, id_place, _type, audience_number, capacity)
FROM stdin;
1 1
                              100
         Практика
                       302
\.
-- TOC entry 3861 (class 0 OID 16794)
-- Dependencies: 216
-- Data for Name: client; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson.client (id_client, name_client, passport_client, phone_client, email_client)
FROM stdin;
```

```
2336523
42 Даниил
                              87779965434 dadaya@mail.ru
\.
-- TOC entry 3870 (class 0 OID 16861)
-- Dependencies: 225
-- Data for Name: discipline; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson.discipline (id_discipline, volume, lecture_volume, practic_volume,
lab_volume) FROM stdin;
1 42.5
         13
                11
                       2
\.
-- TOC entry 3872 (class 0 OID 16872)
-- Dependencies: 227
-- Data for Name: discipline_op; Type: TABLE DATA; Schema: lesson; Owner:
postgres
COPY lesson.discipline_op (id_discipline_op, id_discipline, id_program) FROM stdin;
1 1
          123
\.
```

```
-- TOC entry 3878 (class 0 OID 16906)
-- Dependencies: 233
-- Data for Name: division; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson.division (id_division, id_place, id_program, students_list) FROM stdin;
1 1
         123
                {Даниил,Петр}
\.
-- TOC entry 3882 (class 0 OID 16940)
-- Dependencies: 237
-- Data for Name: lesson; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson.lesson (id_lesson, id_teacher, lesson_date, group_number, lesson_type,
id_audience, id_discipline) FROM stdin;
         2023-03-24 K32391
1 1
                                     Лекция
                                                   1
                                                          1
\.
-- TOC entry 3876 (class 0 OID 16898)
-- Dependencies: 231
-- Data for Name: place; Type: TABLE DATA; Schema: lesson; Owner: postgres
```

COPY lesson.place (id_place, name_place, address) FROM stdin;

```
1 Кронверкский
                       Кронверкский 49
\.
-- TOC entry 3868 (class 0 OID 16843)
-- Dependencies: 223
-- Data for Name: student; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson.student (id_student, id_client, group_number, student_status) FROM stdin;
23 42
         K32391
                       Зачислен
\.
-- TOC entry 3874 (class 0 OID 16889)
-- Dependencies: 229
-- Data for Name: teacher; Type: TABLE DATA; Schema: lesson; Owner: postgres
COPY lesson.teacher (id_teacher, name_teacher, position_teacher) FROM stdin;
1 Николай
                Математик
-- TOC entry 3889 (class 0 OID 17021)
```

```
-- Dependencies: 244
-- Data for Name: _group; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons._group (group_number, date_from, date_by, group_size, id_set) FROM
stdin;
\.
-- TOC entry 3886 (class 0 OID 16997)
-- Dependencies: 241
-- Data for Name: _program; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons._program (id_program, volume, program_name, duration) FROM stdin;
                       76
2 92.5
         русский
\.
-- TOC entry 3888 (class 0 OID 17007)
-- Dependencies: 243
-- Data for Name: _set; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons._set (id_set, date_from, date_by, form, id_program) FROM stdin;
28 2019-12-01
                2019-01-10 Очно 2
\.
```

```
-- TOC entry 3903 (class 0 OID 17117)
-- Dependencies: 258
-- Data for Name: audience; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons.audience (id_audience, id_place, _type, audience_number, capacity)
FROM stdin;
\.
-- TOC entry 3884 (class 0 OID 16986)
-- Dependencies: 239
-- Data for Name: client; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons.client (id_client, name_client, passport_client, phone_client, email_client)
FROM stdin;
\.
-- TOC entry 3893 (class 0 OID 17053)
-- Dependencies: 248
-- Data for Name: discipline; Type: TABLE DATA; Schema: lessons; Owner: postgres
```

```
COPY lessons.discipline (id_discipline, volume, lecture_volume, practic_volume,
lab_volume) FROM stdin;
\.
-- TOC entry 3895 (class 0 OID 17064)
-- Dependencies: 250
-- Data for Name: discipline_op; Type: TABLE DATA; Schema: lessons; Owner:
postgres
COPY lessons.discipline_op (id_discipline_op, id_discipline, id_program) FROM stdin;
\.
-- TOC entry 3901 (class 0 OID 17098)
-- Dependencies: 256
-- Data for Name: division; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons.division (id_division, id_place, id_program, students_list) FROM stdin;
\.
-- TOC entry 3905 (class 0 OID 17132)
```

```
-- Dependencies: 260
-- Data for Name: lesson; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons.lesson (id_lesson, id_teacher, lesson_date, group_number, lesson_type,
id_audience, id_discipline) FROM stdin;
\.
-- TOC entry 3899 (class 0 OID 17090)
-- Dependencies: 254
-- Data for Name: place; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons.place (id_place, name_place, address) FROM stdin;
\.
-- TOC entry 3891 (class 0 OID 17035)
-- Dependencies: 246
-- Data for Name: student; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons.student (id_student, id_client, group_number, student_status) FROM
stdin;
\.
```

```
-- TOC entry 3897 (class 0 OID 17081)
-- Dependencies: 252
-- Data for Name: teacher; Type: TABLE DATA; Schema: lessons; Owner: postgres
COPY lessons.teacher (id_teacher, name_teacher, position_teacher) FROM stdin;
\.
-- TOC entry 3946 (class 0 OID 0)
-- Dependencies: 217
-- Name: _program_id_program_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
SELECT pg_catalog.setval('lesson._program_id_program_seq', 1, false);
-- TOC entry 3947 (class 0 OID 0)
-- Dependencies: 219
-- Name: _set_id_set_seq; Type: SEQUENCE SET; Schema: lesson; Owner: postgres
SELECT pg_catalog.setval('lesson._set_id_set_seq', 1, true);
```

```
-- TOC entry 3948 (class 0 OID 0)
-- Dependencies: 234
-- Name: audience_id_audience_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
SELECT pg_catalog.setval('lesson.audience_id_audience_seq', 1, false);
-- TOC entry 3949 (class 0 OID 0)
-- Dependencies: 215
-- Name: client_id_client_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
SELECT pg_catalog.setval('lesson.client_id_client_seq', 1, false);
-- TOC entry 3950 (class 0 OID 0)
-- Dependencies: 224
-- Name: discipline_id_discipline_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
SELECT pg_catalog.setval('lesson.discipline_id_discipline_seq', 1, false);
```

```
-- TOC entry 3951 (class 0 OID 0)
-- Dependencies: 226
-- Name: discipline_op_id_discipline_op_seq; Type: SEQUENCE SET; Schema: lesson;
Owner: postgres
SELECT pg_catalog.setval('lesson.discipline_op_id_discipline_op_seq', 1, false);
-- TOC entry 3952 (class 0 OID 0)
-- Dependencies: 232
-- Name: division_id_division_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
SELECT pg_catalog.setval('lesson.division_id_division_seq', 1, false);
-- TOC entry 3953 (class 0 OID 0)
-- Dependencies: 236
-- Name: lesson_id_lesson_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
```

```
-- TOC entry 3954 (class 0 OID 0)
-- Dependencies: 230
-- Name: place_id_place_seq; Type: SEQUENCE SET; Schema: lesson; Owner: postgres
SELECT pg_catalog.setval('lesson.place_id_place_seq', 1, false);
-- TOC entry 3955 (class 0 OID 0)
-- Dependencies: 222
-- Name: student_id_student_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
SELECT pg_catalog.setval('lesson.student_id_student_seq', 1, false);
-- TOC entry 3956 (class 0 OID 0)
-- Dependencies: 228
-- Name: teacher_id_teacher_seq; Type: SEQUENCE SET; Schema: lesson; Owner:
postgres
```

SELECT pg_catalog.setval('lesson.lesson_id_lesson_seq', 1, false);

```
-- TOC entry 3957 (class 0 OID 0)
-- Dependencies: 240
-- Name: _program_id_program_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
SELECT pg_catalog.setval('lessons._program_id_program_seq', 2, true);
-- TOC entry 3958 (class 0 OID 0)
-- Dependencies: 242
-- Name: _set_id_set_seq; Type: SEQUENCE SET; Schema: lessons; Owner: postgres
SELECT pg_catalog.setval('lessons._set_id_set_seq', 28, true);
-- TOC entry 3959 (class 0 OID 0)
-- Dependencies: 257
-- Name: audience_id_audience_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
```

SELECT pg_catalog.setval('lesson.teacher_id_teacher_seq', 1, false);

```
SELECT pg_catalog.setval('lessons.audience_id_audience_seq', 1, false);
-- TOC entry 3960 (class 0 OID 0)
-- Dependencies: 238
-- Name: client_id_client_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
SELECT pg_catalog.setval('lessons.client_id_client_seq', 1, false);
-- TOC entry 3961 (class 0 OID 0)
-- Dependencies: 247
-- Name: discipline_id_discipline_seq; Type: SEQUENCE SET; Schema: lessons;
Owner: postgres
SELECT pg_catalog.setval('lessons.discipline_id_discipline_seq', 1, false);
-- TOC entry 3962 (class 0 OID 0)
-- Dependencies: 249
-- Name: discipline_op_id_discipline_op_seq; Type: SEQUENCE SET; Schema:
lessons; Owner: postgres
```

```
SELECT pg_catalog.setval('lessons.discipline_op_id_discipline_op_seq', 1, false);
-- TOC entry 3963 (class 0 OID 0)
-- Dependencies: 255
-- Name: division_id_division_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
SELECT pg_catalog.setval('lessons.division_id_division_seq', 1, false);
-- TOC entry 3964 (class 0 OID 0)
-- Dependencies: 259
-- Name: lesson_id_lesson_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
SELECT pg_catalog.setval('lessons.lesson_id_lesson_seq', 1, false);
-- TOC entry 3965 (class 0 OID 0)
-- Dependencies: 253
-- Name: place_id_place_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
```

```
SELECT pg_catalog.setval('lessons.place_id_place_seq', 1, false);
-- TOC entry 3966 (class 0 OID 0)
-- Dependencies: 245
-- Name: student_id_student_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
SELECT pg_catalog.setval('lessons.student_id_student_seq', 1, false);
-- TOC entry 3967 (class 0 OID 0)
-- Dependencies: 251
-- Name: teacher_id_teacher_seq; Type: SEQUENCE SET; Schema: lessons; Owner:
postgres
SELECT pg_catalog.setval('lessons.teacher_id_teacher_seq', 1, false);
-- TOC entry 3651 (class 2606 OID 16836)
-- Name: _group _group_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres
```

ALTER TABLE ONLY lesson._group

ADD CONSTRAINT _group_pkey PRIMARY KEY (group_number);

```
-- TOC entry 3647 (class 2606 OID 16813)
-- Name: _program _program_pkey; Type: CONSTRAINT; Schema: lesson; Owner:
postgres
ALTER TABLE ONLY lesson._program
  ADD CONSTRAINT _program_pkey PRIMARY KEY (id_program);
-- TOC entry 3649 (class 2606 OID 16823)
-- Name: _set _set_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson._set
  ADD CONSTRAINT _set_pkey PRIMARY KEY (id_set);
-- TOC entry 3665 (class 2606 OID 16933)
-- Name: audience audience_pkey; Type: CONSTRAINT; Schema: lesson; Owner:
postgres
```

ALTER TABLE ONLY lesson.audience

ADD CONSTRAINT audience_pkey PRIMARY KEY (id_audience);

-- TOC entry 3645 (class 2606 OID 16803) -- Name: client_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.client ADD CONSTRAINT client_pkey PRIMARY KEY (id_client); -- TOC entry 3657 (class 2606 OID 16877) -- Name: discipline_op discipline_op_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.discipline_op ADD CONSTRAINT discipline_op_pkey PRIMARY KEY (id_discipline_op); -- TOC entry 3655 (class 2606 OID 16870) -- Name: discipline discipline_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres

ALTER TABLE ONLY lesson.discipline

ADD CONSTRAINT discipline_pkey PRIMARY KEY (id_discipline);

-- TOC entry 3663 (class 2606 OID 16913) -- Name: division division_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.division ADD CONSTRAINT division_pkey PRIMARY KEY (id_division); -- TOC entry 3667 (class 2606 OID 16946) -- Name: lesson lesson_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.lesson ADD CONSTRAINT lesson_pkey PRIMARY KEY (id_lesson); -- TOC entry 3661 (class 2606 OID 16904) -- Name: place place_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres

ALTER TABLE ONLY lesson.place

ADD CONSTRAINT place_pkey PRIMARY KEY (id_place);

-- TOC entry 3653 (class 2606 OID 16849) -- Name: student student_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.student ADD CONSTRAINT student_pkey PRIMARY KEY (id_student); -- TOC entry 3659 (class 2606 OID 16896) -- Name: teacher_pkey; Type: CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.teacher ADD CONSTRAINT teacher_pkey PRIMARY KEY (id_teacher); -- TOC entry 3675 (class 2606 OID 17028) -- Name: _group _group_pkey; Type: CONSTRAINT; Schema: lessons; Owner: postgres

ALTER TABLE ONLY lessons._group

ADD CONSTRAINT _group_pkey PRIMARY KEY (group_number);

```
-- TOC entry 3671 (class 2606 OID 17005)
-- Name: _program _program_pkey; Type: CONSTRAINT; Schema: lessons; Owner:
postgres
ALTER TABLE ONLY lessons._program
  ADD CONSTRAINT _program_pkey PRIMARY KEY (id_program);
-- TOC entry 3673 (class 2606 OID 17015)
-- Name: _set _set_pkey; Type: CONSTRAINT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons._set
  ADD CONSTRAINT _set_pkey PRIMARY KEY (id_set);
-- TOC entry 3689 (class 2606 OID 17125)
-- Name: audience audience_pkey; Type: CONSTRAINT; Schema: lessons; Owner:
postgres
```

ALTER TABLE ONLY lessons.audience

ADD CONSTRAINT audience_pkey PRIMARY KEY (id_audience);

TOC entry 3669 (class 2606 OID 16995)
Name: client_pkey; Type: CONSTRAINT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.client
ADD CONSTRAINT client_pkey PRIMARY KEY (id_client);
TOC entry 3681 (class 2606 OID 17069)
Name: discipline_op discipline_op_pkey; Type: CONSTRAINT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.discipline_op
ADD CONSTRAINT discipline_op_pkey PRIMARY KEY (id_discipline_op);
TOC entry 3679 (class 2606 OID 17062)
Name: discipline discipline_pkey; Type: CONSTRAINT; Schema: lessons; Owner: postgres

ALTER TABLE ONLY lessons.discipline

ADD CONSTRAINT discipline_pkey PRIMARY KEY (id_discipline);

```
-- TOC entry 3687 (class 2606 OID 17105)
-- Name: division division_pkey; Type: CONSTRAINT; Schema: lessons; Owner:
postgres
ALTER TABLE ONLY lessons.division
  ADD CONSTRAINT division_pkey PRIMARY KEY (id_division);
-- TOC entry 3691 (class 2606 OID 17138)
-- Name: lesson lesson_pkey; Type: CONSTRAINT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.lesson
  ADD CONSTRAINT lesson_pkey PRIMARY KEY (id_lesson);
-- TOC entry 3685 (class 2606 OID 17096)
-- Name: place place_pkey; Type: CONSTRAINT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.place
```

ADD CONSTRAINT place_pkey PRIMARY KEY (id_place);

```
-- TOC entry 3677 (class 2606 OID 17041)
-- Name: student_pkey; Type: CONSTRAINT; Schema: lessons; Owner:
postgres
ALTER TABLE ONLY lessons.student
  ADD CONSTRAINT student_pkey PRIMARY KEY (id_student);
-- TOC entry 3683 (class 2606 OID 17088)
-- Name: teacher_pkey; Type: CONSTRAINT; Schema: lessons; Owner:
postgres
ALTER TABLE ONLY lessons.teacher
  ADD CONSTRAINT teacher_pkey PRIMARY KEY (id_teacher);
-- TOC entry 3693 (class 2606 OID 16837)
-- Name: _group _group_id_set_fkey; Type: FK CONSTRAINT; Schema: lesson;
Owner: postgres
```

ALTER TABLE ONLY lesson._group

```
ADD CONSTRAINT _group_id_set_fkey FOREIGN KEY (id_set) REFERENCES
lesson._set(id_set);
-- TOC entry 3692 (class 2606 OID 16824)
-- Name: _set _set_id_program_fkey; Type: FK CONSTRAINT; Schema: lesson;
Owner: postgres
ALTER TABLE ONLY lesson._set
  ADD CONSTRAINT _set_id_program_fkey FOREIGN KEY (id_program)
REFERENCES lesson._program(id_program);
-- TOC entry 3700 (class 2606 OID 16934)
-- Name: audience_id_place_fkey; Type: FK CONSTRAINT; Schema: lesson;
Owner: postgres
ALTER TABLE ONLY lesson.audience
  ADD CONSTRAINT audience_id_place_fkey FOREIGN KEY (id_place)
REFERENCES lesson.place(id_place);
-- TOC entry 3696 (class 2606 OID 16878)
-- Name: discipline_op_discipline_op_id_discipline_fkey; Type: FK CONSTRAINT;
Schema: lesson; Owner: postgres
```

ALTER TABLE ONLY lesson.discipline_op

ADD CONSTRAINT discipline_op_id_discipline_fkey FOREIGN KEY (id_discipline) REFERENCES lesson.discipline(id_discipline);

-- TOC entry 3697 (class 2606 OID 16883) -- Name: discipline_op_discipline_op_id_program_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.discipline_op ADD CONSTRAINT discipline_op_id_program_fkey FOREIGN KEY (id_program) REFERENCES lesson._program(id_program); -- TOC entry 3698 (class 2606 OID 16914) -- Name: division_id_place_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.division ADD CONSTRAINT division_id_place_fkey FOREIGN KEY (id_place)

REFERENCES lesson.place(id_place);

-- TOC entry 3699 (class 2606 OID 16919)

Name: division_id_program_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.division
ADD CONSTRAINT division_id_program_fkey FOREIGN KEY (id_program) REFERENCES lessonprogram(id_program);

TOC entry 3701 (class 2606 OID 16952)
Name: lesson_group_number_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.lesson
ADD CONSTRAINT lesson_group_number_fkey FOREIGN KEY (group_number) REFERENCES lessongroup(group_number);
TOC entry 3702 (class 2606 OID 16957)
Name: lesson_id_audience_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres
ALTER TABLE ONLY lesson.lesson
ADD CONSTRAINT lesson_id_audience_fkey FOREIGN KEY (id_audience) REFERENCES lesson.audience(id_audience);

-- TOC entry 3703 (class 2606 OID 16962) -- Name: lesson_id_discipline_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.lesson ADD CONSTRAINT lesson_id_discipline_fkey FOREIGN KEY (id_discipline) REFERENCES lesson.discipline(id_discipline); -- TOC entry 3704 (class 2606 OID 16947) -- Name: lesson_id_teacher_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres ALTER TABLE ONLY lesson.lesson ADD CONSTRAINT lesson_id_teacher_fkey FOREIGN KEY (id_teacher) REFERENCES lesson.teacher(id teacher); -- TOC entry 3694 (class 2606 OID 16855) -- Name: student_group_number_fkey; Type: FK CONSTRAINT; Schema: lesson; Owner: postgres

ALTER TABLE ONLY lesson.student

ADD CONSTRAINT student_group_number_fkey FOREIGN KEY (group_number) REFERENCES lesson._group(group_number);

```
-- TOC entry 3695 (class 2606 OID 16850)
-- Name: student_id_client_fkey; Type: FK CONSTRAINT; Schema: lesson;
Owner: postgres
ALTER TABLE ONLY lesson.student
  ADD CONSTRAINT student_id_client_fkey FOREIGN KEY (id_client)
REFERENCES lesson.client(id_client);
-- TOC entry 3706 (class 2606 OID 17029)
-- Name: _group _group_id_set_fkey; Type: FK CONSTRAINT; Schema: lessons;
Owner: postgres
ALTER TABLE ONLY lessons._group
  ADD CONSTRAINT _group_id_set_fkey FOREIGN KEY (id_set) REFERENCES
lesson._set(id_set);
-- TOC entry 3713 (class 2606 OID 17126)
-- Name: audience_id_place_fkey; Type: FK CONSTRAINT; Schema: lessons;
Owner: postgres
```

ALTER TABLE ONLY lessons.audience

ADD CONSTRAINT audience_id_place_fkey FOREIGN KEY (id_place) REFERENCES lesson.place(id_place);

--

- -- TOC entry 3709 (class 2606 OID 17070)
- -- Name: discipline_op_discipline_op_id_discipline_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres

--

ALTER TABLE ONLY lessons.discipline_op

ADD CONSTRAINT discipline_op_id_discipline_fkey FOREIGN KEY (id_discipline) REFERENCES lesson.discipline(id_discipline);

--

- -- TOC entry 3710 (class 2606 OID 17075)
- -- Name: discipline_op_discipline_op_id_program_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres

--

ALTER TABLE ONLY lessons.discipline_op

ADD CONSTRAINT discipline_op_id_program_fkey FOREIGN KEY (id_program) REFERENCES lesson._program(id_program);

--

- -- TOC entry 3711 (class 2606 OID 17106)
- -- Name: division_id_place_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres

--

ALTER TABLE ONLY lessons.division

ADD CONSTRAINT division_id_place_fkey FOREIGN KEY (id_place) REFERENCES lesson.place(id_place);

--

- -- TOC entry 3712 (class 2606 OID 17111)
- -- Name: division_id_program_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres

--

ALTER TABLE ONLY lessons.division

ADD CONSTRAINT division_id_program_fkey FOREIGN KEY (id_program) REFERENCES lesson._program(id_program);

--

- -- TOC entry 3705 (class 2606 OID 17163)
- -- Name: _set fk; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres

--

ALTER TABLE ONLY lessons._set

ADD CONSTRAINT fk FOREIGN KEY (id_program) REFERENCES lessons._program(id_program) NOT VALID;

--

-- TOC entry 3714 (class 2606 OID 17144)

Name: lesson_group_number_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.lesson
ADD CONSTRAINT lesson_group_number_fkey FOREIGN KEY (group_number) REFERENCES lessongroup(group_number);
TOC entry 3715 (class 2606 OID 17149)
Name: lesson_id_audience_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres
ALTER TABLE ONLY lessons.lesson
ADD CONSTRAINT lesson_id_audience_fkey FOREIGN KEY (id_audience) REFERENCES lesson.audience(id_audience);

TOC entry 3716 (class 2606 OID 17154)
Name: lesson_id_discipline_fkey; Type: FK CONSTRAINT; Schema: lessons Owner: postgres
ALTER TABLE ONLY lessons.lesson
ADD CONSTRAINT lesson_id_discipline_fkey FOREIGN KEY (id_discipline)

REFERENCES lesson.discipline(id_discipline);

-- TOC entry 3717 (class 2606 OID 17139) -- Name: lesson_id_teacher_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres ALTER TABLE ONLY lessons.lesson ADD CONSTRAINT lesson_id_teacher_fkey FOREIGN KEY (id_teacher) REFERENCES lesson.teacher(id_teacher); -- TOC entry 3707 (class 2606 OID 17047) -- Name: student_group_number_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres ALTER TABLE ONLY lessons.student ADD CONSTRAINT student_group_number_fkey FOREIGN KEY (group_number) REFERENCES lesson._group(group_number); -- TOC entry 3708 (class 2606 OID 17042) -- Name: student_id_client_fkey; Type: FK CONSTRAINT; Schema: lessons; Owner: postgres ALTER TABLE ONLY lessons.student

ADD CONSTRAINT student_id_client_fkey FOREIGN KEY (id_client)

REFERENCES lesson.client(id_client);

Вывод:

В ходе лабораторной работы я научился создавать таблицы баз PostgreSQL1X при помощи программного обеспечения PgAdmin4. Также я научился пользоваться средствами вышеупомянутого инструмента для логического моделирования бд, заполнения ее данными, резервного копирования и восстановления.