Министерство образования Республики Беларусь

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Факультет компьютерных систем и сетей

Кафедра информатики

Дисциплина: Технологии разработки программного обеспечения

Отчет по лабораторной работе №2

«Проектирование и создание базы данных»

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1. Постановка задачи

Разработка логической и физической модели БД не менее чем с 5-ю сущностями, генерация DDL скриптов, создание БД.

Предметная область: система для отслеживания лотов автомобилей *copart.com*.

Тип БД – реляционная, PostgreSQL.

2. Разработка логической модели данных

Проведенный анализ предметной области позволил выявить следующий набор сущностей:

telegram_user — пользователь системы

telegram_user_api_key — токен для идентификации пользователя

filter — набор параметров для однозначной идентификации нужного множества автомобилей

make — производитель автомобилей

model — модель авто

auto — абстракция реально существующих автомобилей, выставленных на продажу

Приложение A. DDL-скрипт для создания схемы базы сервиса на Python

```
-- PostgreSQL database dump
-- Dumped from database version 10.14 (Ubuntu 10.14-0ubuntu0.18.04.1)
-- Dumped by pg_dump version 10.14 (Ubuntu 10.14-0ubuntu0.18.04.1)
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;
-- Name: plpgsql; Type: EXTENSION; Schema: -; Owner:
CREATE EXTENSION IF NOT EXISTS plpgsql WITH SCHEMA pg_catalog;
-- Name: EXTENSION plpgsql; Type: COMMENT; Schema: -; Owner:
COMMENT ON EXTENSION plpgsql IS 'PL/pgSQL procedural language';
```

```
SET default_tablespace = ";
SET default_with_oids = false;
-- Name: auth_group; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.auth_group (
  id integer NOT NULL,
  name character varying(150) NOT NULL
);
ALTER TABLE public.auth_group OWNER TO student;
-- Name: auth_group_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.auth_group_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.auth_group_id_seq OWNER TO student;
-- Name: auth_group_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: student
```

```
-- Name: auth_group_permissions; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.auth_group_permissions (
  id integer NOT NULL,
  group_id integer NOT NULL,
  permission_id integer NOT NULL
);
ALTER TABLE public.auth_group_permissions OWNER TO student;
-- Name: auth_group_permissions_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.auth_group_permissions_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.auth_group_permissions_id_seq OWNER TO student;
-- Name: auth_group_permissions_id_seq; Type: SEQUENCE OWNED BY; Schema: public;
Owner: student
```

ALTER SEQUENCE public.auth_group_id_seq OWNED BY public.auth_group.id;

```
ALTER SEQUENCE public.auth_group_permissions_id_seq OWNED BY
public.auth_group_permissions.id;
-- Name: auth_permission; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.auth_permission (
  id integer NOT NULL,
  name character varying(255) NOT NULL,
  content_type_id integer NOT NULL,
  codename character varying(100) NOT NULL
);
ALTER TABLE public.auth_permission OWNER TO student;
-- Name: auth_permission_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.auth_permission_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
```

ALTER TABLE public.auth_permission_id_seq OWNER TO student;

```
-- Name: auth_permission_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
student
ALTER SEQUENCE public.auth_permission_id_seq OWNED BY public.auth_permission.id;
-- Name: auth_user; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.auth_user (
  id integer NOT NULL,
  password character varying(128) NOT NULL,
  last_login timestamp with time zone,
  is_superuser boolean NOT NULL,
  username character varying(150) NOT NULL,
  first_name character varying(150) NOT NULL,
  last_name character varying(150) NOT NULL,
  email character varying(254) NOT NULL,
  is_staff boolean NOT NULL,
  is_active boolean NOT NULL,
  date_joined timestamp with time zone NOT NULL
);
ALTER TABLE public.auth_user OWNER TO student;
-- Name: auth_user_groups; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.auth_user_groups (
  id integer NOT NULL,
```

```
user_id integer NOT NULL,
  group_id integer NOT NULL
);
ALTER TABLE public.auth_user_groups OWNER TO student;
-- Name: auth_user_groups_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.auth_user_groups_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.auth_user_groups_id_seq OWNER TO student;
-- Name: auth_user_groups_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
student
ALTER SEQUENCE public.auth_user_groups_id_seq OWNED BY public.auth_user_groups.id;
-- Name: auth_user_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.auth_user_id_seq
```

```
AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.auth_user_id_seq OWNER TO student;
-- Name: auth_user_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: student
ALTER SEQUENCE public.auth_user_id_seq OWNED BY public.auth_user.id;
-- Name: auth_user_user_permissions; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.auth_user_user_permissions (
  id integer NOT NULL,
  user_id integer NOT NULL,
  permission_id integer NOT NULL
);
ALTER TABLE public.auth_user_user_permissions OWNER TO student;
-- Name: auth_user_user_permissions_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.auth_user_user_permissions_id_seq
```

```
AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.auth_user_user_permissions_id_seq OWNER TO student;
-- Name: auth_user_user_permissions_id_seq; Type: SEQUENCE OWNED BY; Schema: public;
Owner: student
ALTER SEQUENCE public.auth user user permissions id seg OWNED BY
public.auth_user_user_permissions.id;
-- Name: bot_user; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.bot_user (
  id integer NOT NULL,
  telegram_id integer NOT NULL,
  subscription_end timestamp with time zone NOT NULL,
  CONSTRAINT bot_user_telegram_id_check CHECK ((telegram_id >= 0))
);
ALTER TABLE public.bot_user OWNER TO student;
-- Name: bot_user_id_seq; Type: SEQUENCE; Schema: public; Owner: student
```

```
CREATE SEQUENCE public.bot_user_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.bot_user_id_seq OWNER TO student;
-- Name: bot_user_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: student
ALTER SEQUENCE public.bot_user_id_seq OWNED BY public.bot_user.id;
-- Name: django_admin_log; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.django_admin_log (
  id integer NOT NULL,
  action_time timestamp with time zone NOT NULL,
  object_id text,
  object_repr character varying(200) NOT NULL,
  action_flag smallint NOT NULL,
  change_message text NOT NULL,
  content_type_id integer,
  user_id integer NOT NULL,
  CONSTRAINT django_admin_log_action_flag_check CHECK ((action_flag >= 0))
);
```

```
ALTER TABLE public.django_admin_log OWNER TO student;
-- Name: django_admin_log_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.django_admin_log_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1:
ALTER TABLE public.django_admin_log_id_seq OWNER TO student;
-- Name: django_admin_log_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
student
ALTER SEQUENCE public.django_admin_log_id_seq OWNED BY public.django_admin_log.id;
-- Name: django_content_type; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.django_content_type (
  id integer NOT NULL,
  app_label character varying(100) NOT NULL,
  model character varying(100) NOT NULL
);
```

```
ALTER TABLE public.django_content_type OWNER TO student;
-- Name: django_content_type_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.django_content_type_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.django_content_type_id_seq OWNER TO student;
-- Name: django_content_type_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
student
ALTER SEQUENCE public.django_content_type_id_seq OWNED BY
public.django_content_type.id;
-- Name: django_migrations; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.django_migrations (
  id integer NOT NULL,
  app character varying(255) NOT NULL,
  name character varying(255) NOT NULL,
```

```
applied timestamp with time zone NOT NULL
);
ALTER TABLE public.django_migrations OWNER TO student;
-- Name: django_migrations_id_seq; Type: SEQUENCE; Schema: public; Owner: student
CREATE SEQUENCE public.django_migrations_id_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.django_migrations_id_seq OWNER TO student;
-- Name: django_migrations_id_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
student
ALTER SEQUENCE public.django_migrations_id_seq OWNED BY public.django_migrations.id;
-- Name: django_session; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.django_session (
  session_key character varying(40) NOT NULL,
```

```
expire_date timestamp with time zone NOT NULL
);
ALTER TABLE public.django_session OWNER TO student;
-- Name: rest_framework_api_key_apikey; Type: TABLE; Schema: public; Owner: student
CREATE TABLE public.rest_framework_api_key_apikey (
  id character varying(100) NOT NULL,
  created timestamp with time zone NOT NULL,
  name character varying(50) NOT NULL,
  revoked boolean NOT NULL,
  expiry_date timestamp with time zone,
  hashed_key character varying(100) NOT NULL,
  prefix character varying(8) NOT NULL
);
ALTER TABLE public.rest_framework_api_key_apikey OWNER TO student;
-- Name: auth_group id; Type: DEFAULT; Schema: public; Owner: student
ALTER TABLE ONLY public.auth_group ALTER COLUMN id SET DEFAULT
nextval('public.auth_group_id_seq'::regclass);
-- Name: auth_group_permissions id; Type: DEFAULT; Schema: public; Owner: student
```

session data text NOT NULL,

ALTER TABLE ONLY public.auth_group_permissions ALTER COLUMN id SET DEFAULT nextval('public.auth_group_permissions_id_seq'::regclass);

Name: auth_permission id; Type: DEFAULT; Schema: public; Owner: student
ALTER TABLE ONLY public.auth_permission ALTER COLUMN id SET DEFAULT nextval('public.auth_permission_id_seq'::regclass);

Name: auth_user id; Type: DEFAULT; Schema: public; Owner: student

ALTER TABLE ONLY public.auth_user ALTER COLUMN id SET DEFAULT nextval('public.auth_user_id_seq'::regclass);

Name: auth_user_groups id; Type: DEFAULT; Schema: public; Owner: student
ALTER TABLE ONLY public.auth_user_groups ALTER COLUMN id SET DEFAULT nextval('public.auth_user_groups_id_seq'::regclass);
Name: auth_user_user_permissions id; Type: DEFAULT; Schema: public; Owner: student
ALTER TABLE ONLY public.auth_user_user_permissions ALTER COLUMN id SET DEFAULT nextval('public.auth_user_user_permissions_id_seq'::regclass);

Name: bot_user id; Type: DEFAULT; Schema: public; Owner: student
ALTER TABLE ONLY public.bot_user ALTER COLUMN id SET DEFAULT
nextval('public.bot_user_id_seq'::regclass);
Name: diange admin log id: Type: DEEALUT: Scheme: public: Overer: ctudent
Name: django_admin_log id; Type: DEFAULT; Schema: public; Owner: student

ALTER TABLE ONLY public.django_admin_log ALTER COLUMN id SET DEFAULT
nextval('public.django_admin_log_id_seq'::regclass);
Name: django_content_type id; Type: DEFAULT; Schema: public; Owner: student
ALTER TABLE ONLY public.django_content_type ALTER COLUMN id SET DEFAULT
nextval('public.django_content_type_id_seq'::regclass);
Name: django_migrations id; Type: DEFAULT; Schema: public; Owner: student
ALTER TABLE ONLY public.django_migrations ALTER COLUMN id SET DEFAULT
nextval('public.django_migrations_id_seq'::regclass);

Data for Name: auth_group; Type: TABLE DATA; Schema: public; Owner: student
Zam 202 1 milet dani_5toup, 23pet 111DDD D11111, Ochemat public, Owner, Stadent

```
COPY public.auth_group (id, name) FROM stdin;
١.
-- Data for Name: auth_group_permissions; Type: TABLE DATA; Schema: public; Owner: student
COPY public.auth_group_permissions (id, group_id, permission_id) FROM stdin;
١.
-- Data for Name: auth_permission; Type: TABLE DATA; Schema: public; Owner: student
COPY public.auth_permission (id, name, content_type_id, codename) FROM stdin;
       Can add log entry
1
                           1
                                  add_logentry
2
       Can change log entry 1
                                  change_logentry
3
                                  delete_logentry
       Can delete log entry 1
4
       Can view log entry
                           1
                                  view_logentry
5
       Can add permission
                                  add_permission
                          2
6
       Can change permission
                                  2
                                         change_permission
7
       Can delete permission
                                  2
                                         delete_permission
8
       Can view permission 2
                                  view_permission
9
       Can add group3
                           add_group
10
       Can change group
                           3
                                  change_group
11
       Can delete group
                           3
                                  delete_group
12
       Can view group
                           3
                                  view_group
       Can add user 4
13
                           add_user
14
       Can change user
                           4
                                  change_user
15
       Can delete user
                           4
                                  delete_user
16
       Can view user 4
                           view_user
17
       Can add content type 5
                                  add_contenttype
18
       Can change content type
                                  5
                                         change_contenttype
```

```
19
       Can delete content type
                                   5
                                          delete contenttype
20
       Can view content type
                                   5
                                          view contenttype
21
       Can add session
                            6
                                   add session
22
       Can change session
                           6
                                   change_session
23
       Can delete session
                            6
                                   delete_session
24
                            6
       Can view session
                                   view_session
25
       Can add API key
                            7
                                   add_apikey
26
                           7
                                   change_apikey
       Can change API key
27
       Can delete API key
                            7
                                   delete_apikey
28
                            7
       Can view API key
                                   view_apikey
29
       Can add auto 8
                            add_auto
30
       Can change auto
                            8
                                   change auto
31
       Can delete auto
                            8
                                   delete auto
32
       Can view auto 8
                            view_auto
33
       Can add make 9
                            add_make
34
       Can change make
                            9
                                   change_make
35
                            9
                                   delete_make
       Can delete make
36
                            9
       Can view make
                                   view_make
37
       Can add model
                            10
                                   add_model
38
       Can change model
                                   change_model
                            10
39
       Can delete model
                            10
                                   delete model
40
       Can view model
                            10
                                   view_model
41
       Can add filter 11
                            add_filter
42
       Can change filter
                            11
                                   change filter
43
       Can delete filter
                            11
                                   delete_filter
44
       Can view filter
                            11
                                   view_filter
45
       Can add telegram user
                                   12
                                          add_telegramuser
46
       Can change telegram user
                                   12
                                          change_telegramuser
47
       Can delete telegram user
                                   12
                                          delete_telegramuser
48
       Can view telegram user
                                   12
                                          view_telegramuser
49
       Can add Telegram user API key
                                          13
                                                 add_telegramuserapikey
50
       Can change Telegram user API key
                                         13
                                                 change_telegramuserapikey
51
       Can delete Telegram user API key
                                          13
                                                 delete_telegramuserapikey
52
       Can view Telegram user API key
                                          13
                                                 view_telegramuserapikey
```

١.

```
-- Data for Name: auth_user; Type: TABLE DATA; Schema: public; Owner: student
COPY public.auth_user (id, password, last_login, is_superuser, username, first_name, last_name,
email, is staff, is active, date joined) FROM stdin;
1
pbkdf2_sha256$216000$o1089BOBf7UK$BWh7QNetKWcmmV+NnqhPE+bRzdApI5FHw4OBB
2LQ3wQ=
             2020-11-18 12:36:36.51383+03
                                                     admin
                                             t
      2020-11-18 12:36:13.216069+03
\.
-- Data for Name: auth_user_groups; Type: TABLE DATA; Schema: public; Owner: student
COPY public.auth_user_groups (id, user_id, group_id) FROM stdin;
١.
-- Data for Name: auth_user_user_permissions; Type: TABLE DATA; Schema: public; Owner:
student
COPY public.auth_user_user_permissions (id, user_id, permission_id) FROM stdin;
١.
-- Data for Name: bot_user; Type: TABLE DATA; Schema: public; Owner: student
```

```
COPY public.bot_user (id, telegram_id, subscription_end) FROM stdin;
١.
-- Data for Name: django_admin_log; Type: TABLE DATA; Schema: public; Owner: student
COPY public.django_admin_log (id, action_time, object_id, object_repr, action_flag,
change_message, content_type_id, user_id) FROM stdin;
١.
-- Data for Name: django_content_type; Type: TABLE DATA; Schema: public; Owner: student
COPY public.django_content_type (id, app_label, model) FROM stdin;
1
       admin logentry
2
       auth
             permission
3
       auth
             group
4
       auth
             user
5
       contenttypes contenttype
6
       sessions
                    session
7
       rest_framework_api_key
                                  apikey
8
       autos auto
9
       autos make
10
       autos model
             filter
11
       bot
13
       bot
             telegramuserapikey
12
       bot
             user
\.
```

-- Data for Name: django_migrations; Type: TABLE DATA; Schema: public; Owner: student

--

32

autos

```
COPY public.diango migrations (id, app, name, applied) FROM stdin;
1
      contenttypes 0001 initial 2020-11-18 12:33:43.810515+03
2
      auth
            0001_initial 2020-11-18 12:33:44.471832+03
3
      admin 0001 initial 2020-11-18 12:33:45.472303+03
4
      admin 0002_logentry_remove_auto_add 2020-11-18 12:33:45.686502+03
5
      admin 0003_logentry_add_action_flag_choices
                                                 2020-11-18 12:33:45.784846+03
6
      contenttypes 0002_remove_content_type_name 2020-11-18 12:33:45.953319+03
7
      auth
            0002_alter_permission_name_max_length 2020-11-18 12:33:46.051095+03
8
            0003_alter_user_email_max_length 2020-11-18 12:33:46.138153+03
      auth
9
      auth
            0004 alter user username opts
                                           2020-11-18 12:33:46.217432+03
10
      auth
            0005 alter user last login null
                                           2020-11-18 12:33:46.309984+03
11
      auth
            0006_require_contenttypes_0002
                                           2020-11-18 12:33:46.33098+03
12
      auth
            0007_alter_validators_add_error_messages 2020-11-18 12:33:46.424999+03
13
      auth
            0008_alter_user_username_max_length
                                                 2020-11-18 12:33:46.586882+03
14
      auth
            0009_alter_user_last_name_max_length
                                                 2020-11-18 12:33:46.687498+03
15
      auth
            0010_alter_group_name_max_length
                                                 2020-11-18 12:33:46.790988+03
16
      auth
            0011_update_proxy_permissions
                                           2020-11-18 12:33:46.888055+03
17
            0012 alter user first name max length
                                                 2020-11-18 12:33:46.976348+03
      auth
18
      bot
            0001 initial 2020-11-18 12:33:47.127205+03
19
            0001 initial
                        2020-11-18 12:33:47.23795+03
      autos
20
            0002_auto_20201029_2041 2020-11-18 12:33:47.320938+03
      autos
21
            0003 auto 20201031 1440 2020-11-18 12:33:47.479844+03
      autos
22
            0004_auto_20201031_1730 2020-11-18 12:33:47.597047+03
      autos
23
      autos
            24
            0006_auto_20201102_1800 2020-11-18 12:33:48.44786+03
      autos
25
      autos
            0007_auto_20201102_1815 2020-11-18 12:33:48.705528+03
26
            0008_auto_20201102_1825 2020-11-18 12:33:48.935779+03
      autos
27
            0009_auto_20201104_1713 2020-11-18 12:33:49.014808+03
      autos
28
            0010_auto_20201106_1613 2020-11-18 12:33:49.095894+03
      autos
29
            0011 filter user
                               2020-11-18 12:33:49.172756+03
      autos
30
            autos
31
                               2020-11-18 12:33:49.659124+03
      autos
            0013 delete filter
```

0014 auto 20201108 2032 2020-11-18 12:33:49.764683+03

```
33
      bot
             0002 auto 20201108 1558 2020-11-18 12:33:49.976968+03
37
      rest framework api key
                                0001 initial 2020-11-18 12:33:51.30075+03
38
      rest framework api kev
                                0002 auto 20190529 2243 2020-11-18 12:33:51.485913+03
                                0003 auto 20190623 1952 2020-11-18 12:33:51.522444+03
39
      rest framework api kev
40
      rest_framework_api_key
                                0004_prefix_hashed_key
                                                          2020-11-18 12:33:51.778778+03
                   0001 initial
                                2020-11-18 12:33:52.002403+03
41
      sessions
١.
-- Data for Name: django session; Type: TABLE DATA; Schema: public; Owner: student
COPY public.django_session (session_key, session_data, expire_date) FROM stdin;
eqlr8ow5o7dxq2h7gi3hi2ekijkwzir9.eJxVjEEOgjAQRe_StWlmSmGsS_ecoRk6U4saSCisjHdXEh
a6 e-9 zKRt7XEreoSRzEXg-b0uw2cHjrtQO483Wab5mldxsHuij1otf0s-rwe7t9B4Vq-
dcaWSMVrUmbIFLjjTKkDH86t-jZTE5rGYQgo6gAYHA5CCREBUMW8P-
2GN5A:1kfJtE:dND8FXvIqgnV0AbmJqVNzDyEn1san4rJ69ctYBDGBNw
                                                                       2020-12-02
12:36:36.53953+03
١.
-- Data for Name: rest_framework_api_key_apikey; Type: TABLE DATA; Schema: public; Owner:
student
COPY public.rest_framework_api_key_apikey (id, created, name, revoked, expiry_date,
hashed_key, prefix) FROM stdin;
١.
-- Name: auth_group_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.auth_group_id_seq', 1, false);
```

```
-- Name: auth_group_permissions_id_seq; Type: SEQUENCE SET; Schema: public; Owner:
student
SELECT pg_catalog.setval('public.auth_group_permissions_id_seq', 1, false);
-- Name: auth_permission_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.auth_permission_id_seq', 52, true);
-- Name: auth_user_groups_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.auth_user_groups_id_seq', 1, false);
-- Name: auth_user_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.auth_user_id_seq', 1, true);
-- Name: auth_user_user_permissions_id_seq; Type: SEQUENCE SET; Schema: public; Owner:
student
```

```
SELECT pg_catalog.setval('public.auth_user_user_permissions_id_seq', 1, false);
-- Name: bot_user_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.bot_user_id_seq', 1, false);
-- Name: django_admin_log_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.django_admin_log_id_seq', 1, false);
-- Name: django_content_type_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.django_content_type_id_seq', 13, true);
-- Name: django_migrations_id_seq; Type: SEQUENCE SET; Schema: public; Owner: student
SELECT pg_catalog.setval('public.django_migrations_id_seq', 41, true);
-- Name: auth_group_auth_group_name_key; Type: CONSTRAINT; Schema: public; Owner:
student
```

ADD CONSTRAINT auth_group_name_key UNIQUE (name); -- Name: auth_group_permissions auth group permissions group id permission id 0cd325b0 uniq; Type: CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.auth_group_permissions ADD CONSTRAINT auth_group_permissions_group_id_permission_id_0cd325b0_uniq UNIQUE (group_id, permission_id); -- Name: auth_group_permissions auth_group_permissions_pkey; Type: CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.auth_group_permissions ADD CONSTRAINT auth_group_permissions_pkey PRIMARY KEY (id); -- Name: auth_group_auth_group_pkey; Type: CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.auth_group ADD CONSTRAINT auth_group_pkey PRIMARY KEY (id); -- Name: auth_permission auth_permission_content_type_id_codename_01ab375a_uniq; Type:

ALTER TABLE ONLY public.auth_group

CONSTRAINT; Schema: public; Owner: student

ADD CONSTRAINT auth_permission_content_type_id_codename_01ab375a_uniq UNIQUE (content_type_id, codename); -- Name: auth permission auth permission pkey; Type: CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.auth_permission ADD CONSTRAINT auth_permission_pkey PRIMARY KEY (id); -- Name: auth_user_groups auth_user_groups_pkey; Type: CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.auth_user_groups ADD CONSTRAINT auth_user_groups_pkey PRIMARY KEY (id); -- Name: auth_user_groups auth_user_groups_user_id_group_id_94350c0c_uniq; Type: CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.auth_user_groups ADD CONSTRAINT auth_user_groups_user_id_group_id_94350c0c_uniq UNIQUE (user_id, group_id);

-- Name: auth_user_pkey; Type: CONSTRAINT; Schema: public; Owner: student

ALTER TABLE ONLY public.auth_permission

```
-- Name: auth_user_user_permissions auth_user_user_permissions_pkey; Type: CONSTRAINT;
Schema: public; Owner: student
ALTER TABLE ONLY public.auth_user_user_permissions
  ADD CONSTRAINT auth_user_user_permissions_pkey PRIMARY KEY (id);
-- Name: auth user user permissions
auth_user_user_permissions_user_id_permission_id_14a6b632_uniq; Type: CONSTRAINT;
Schema: public; Owner: student
ALTER TABLE ONLY public.auth_user_user_permissions
  ADD CONSTRAINT auth_user_user_permissions_user_id_permission_id_14a6b632_uniq
UNIQUE (user_id, permission_id);
-- Name: auth_user_auth_user_username_key; Type: CONSTRAINT; Schema: public; Owner:
student
ALTER TABLE ONLY public.auth_user
  ADD CONSTRAINT auth_user_username_key UNIQUE (username);
-- Name: bot_user_pkey; Type: CONSTRAINT; Schema: public; Owner: student
```

ALTER TABLE ONLY public.auth_user

ADD CONSTRAINT auth_user_pkey PRIMARY KEY (id);

```
-- Name: bot_user_telegram_id_key; Type: CONSTRAINT; Schema: public; Owner:
student
ALTER TABLE ONLY public.bot_user
  ADD CONSTRAINT bot_user_telegram_id_key UNIQUE (telegram_id);
-- Name: django_admin_log django_admin_log_pkey; Type: CONSTRAINT; Schema: public;
Owner: student
ALTER TABLE ONLY public.django_admin_log
  ADD CONSTRAINT django_admin_log_pkey PRIMARY KEY (id);
-- Name: django_content_type django_content_type_app_label_model_76bd3d3b_uniq; Type:
CONSTRAINT; Schema: public; Owner: student
ALTER TABLE ONLY public.django_content_type
  ADD CONSTRAINT django_content_type_app_label_model_76bd3d3b_uniq UNIQUE
(app_label, model);
-- Name: django_content_type django_content_type_pkey; Type: CONSTRAINT; Schema: public;
Owner: student
```

ALTER TABLE ONLY public.bot_user

ADD CONSTRAINT bot_user_pkey PRIMARY KEY (id);

```
ALTER TABLE ONLY public.django content type
  ADD CONSTRAINT django_content_type_pkev PRIMARY KEY (id);
-- Name: django_migrations django_migrations_pkey; Type: CONSTRAINT; Schema: public;
Owner: student
ALTER TABLE ONLY public.django migrations
  ADD CONSTRAINT django_migrations_pkey PRIMARY KEY (id);
-- Name: django_session django_session_pkey; Type: CONSTRAINT; Schema: public; Owner:
student
ALTER TABLE ONLY public.django_session
  ADD CONSTRAINT django_session_pkey PRIMARY KEY (session_key);
-- Name: rest_framework_api_key_apikey rest_framework_api_key_apikey_pkey; Type:
CONSTRAINT; Schema: public; Owner: student
ALTER TABLE ONLY public.rest_framework_api_key_apikey
  ADD CONSTRAINT rest_framework_api_key_apikey_pkey PRIMARY KEY (id);
-- Name: rest_framework_api_key_apikey rest_framework_api_key_apikey_prefix_key; Type:
CONSTRAINT; Schema: public; Owner: student
ALTER TABLE ONLY public.rest_framework_api_key_apikey
  ADD CONSTRAINT rest_framework_api_key_apikey_prefix_key UNIQUE (prefix);
-- Name: auth_group_name_a6ea08ec_like; Type: INDEX; Schema: public; Owner: student
CREATE INDEX auth_group_name_a6ea08ec_like ON public.auth_group USING btree (name
varchar_pattern_ops);
-- Name: auth_group_permissions_group_id_b120cbf9; Type: INDEX; Schema: public; Owner:
student
```

CREATE INDEX auth_group_permissions_group_id_b120cbf9 ON public.auth_group_permissions USING btree (group_id);

Name: auth_group_permissions_permission_id_84c5c92e; Type: INDEX; Schema: public; Owner: student

CREATE INDEX auth_group_permissions_permission_id_84c5c92e ON public.auth_group_permissions USING btree (permission_id);
Name: auth_permission_content_type_id_2f476e4b; Type: INDEX; Schema: public; Owner: student
CREATE INDEX auth_permission_content_type_id_2f476e4b ON public.auth_permission USING btree (content_type_id);
Name: auth_user_groups_group_id_97559544; Type: INDEX; Schema: public; Owner: student
CREATE INDEX auth_user_groups_group_id_97559544 ON public.auth_user_groups USING btree (group_id);
Name: auth_user_groups_user_id_6a12ed8b; Type: INDEX; Schema: public; Owner: student
Name. autit_uset_groups_uset_id_oatzedob, Type. INDEA, Schema. public, Owner. student
CREATE INDEX auth_user_groups_user_id_6a12ed8b ON public.auth_user_groups USING btree (user_id);
Name: auth_user_user_permissions_permission_id_1fbb5f2c; Type: INDEX; Schema: public;
Owner: student

CREATE INDEX auth_user_user_permissions_permission_id_1fbb5f2c ON public.auth_user_user_permissions USING btree (permission_id);
Name: auth_user_user_permissions_user_id_a95ead1b; Type: INDEX; Schema: public; Owner: student
CREATE INDEX auth_user_user_permissions_user_id_a95ead1b ON public.auth_user_user_permissions USING btree (user_id);
Name: auth_user_username_6821ab7c_like; Type: INDEX; Schema: public; Owner: student
CREATE INDEX auth_user_username_6821ab7c_like ON public.auth_user USING btree (username varchar_pattern_ops);
Name: django_admin_log_content_type_id_c4bce8eb; Type: INDEX; Schema: public; Owner: student
CREATE INDEX django_admin_log_content_type_id_c4bce8eb ON public.django_admin_log USING btree (content_type_id);
Name: django_admin_log_user_id_c564eba6; Type: INDEX; Schema: public; Owner: student
CREATE INDEX django_admin_log_user_id_c564eba6 ON public.django_admin_log USING btree (user_id);

Name: django_session_expire_date_a5c62663; Type: INDEX; Schema: public; Owner: student
CREATE INDEX django_session_expire_date_a5c62663 ON public.django_session USING btree (expire_date);
Name: django_session_session_key_c0390e0f_like; Type: INDEX; Schema: public; Owner: student
CREATE INDEX django_session_session_key_c0390e0f_like ON public.django_session USING btree (session_key varchar_pattern_ops);

Name: rest_framework_api_key_apikey_created_c61872d9; Type: INDEX; Schema: public; Owner: student

CREATE INDEX rest_framework_api_key_apikey_created_c61872d9 ON public.rest_framework_api_key_apikey USING btree (created);

Name: rest_framework_api_key_apikey_id_6e07e68e_like; Type: INDEX; Schema: public; Owner: student
CREATE INDEX rest_framework_api_key_apikey_id_6e07e68e_like ON public.rest_framework_api_key_apikey USING btree (id varchar_pattern_ops);

Name: rest_framework_api_key_apikey_prefix_4e0db5f8_like; Type: INDEX; Schema: public; Owner: student
CREATE INDEX rest_framework_api_key_apikey_prefix_4e0db5f8_like ON
<pre>public.rest_framework_api_key_apikey USING btree (prefix varchar_pattern_ops);</pre>

Name: auth_group_permissions auth_group_permissio_permission_id_84c5c92e_fk_auth_perm; Type: FK CONSTRAINT; Schema: public; Owner: student
ALTER TABLE ONLY public.auth_group_permissions
ADD CONSTRAINT auth_group_permissio_permission_id_84c5c92e_fk_auth_perm FOREIGN
KEY (permission_id) REFERENCES public.auth_permission(id) DEFERRABLE INITIALLY DEFERRED;
Name: auth_group_permissions auth_group_permissions_group_id_b120cbf9_fk_auth_group_id; Type: FK CONSTRAINT; Schema: public; Owner: student
ALTER TABLE ONLY public.auth_group_permissions
ADD CONSTRAINT auth_group_permissions_group_id_b120cbf9_fk_auth_group_id
FOREIGN KEY (group_id) REFERENCES public.auth_group(id) DEFERRABLE INITIALLY DEFERRED;
Name: auth_permission auth_permission_content_type_id_2f476e4b_fk_django_co; Type: FK
CONSTRAINT; Schema: public; Owner: student
ALTER TABLE ONLY public.auth_permission
ADD CONSTRAINT auth_permission_content_type_id_2f476e4b_fk_django_co FOREIGN
KEY (content_type_id) REFERENCES public.django_content_type(id) DEFERRABLE

INITIALLY DEFERRED;

--

-- Name: auth_user_groups auth_user_groups_group_id_97559544_fk_auth_group_id; Type: FK CONSTRAINT; Schema: public; Owner: student

--

ALTER TABLE ONLY public.auth_user_groups

ADD CONSTRAINT auth_user_groups_group_id_97559544_fk_auth_group_id FOREIGN KEY (group_id) REFERENCES public.auth_group(id) DEFERRABLE INITIALLY DEFERRED;

--

-- Name: auth_user_groups auth_user_groups_user_id_6a12ed8b_fk_auth_user_id; Type: FK CONSTRAINT; Schema: public; Owner: student

--

ALTER TABLE ONLY public.auth_user_groups

ADD CONSTRAINT auth_user_groups_user_id_6a12ed8b_fk_auth_user_id FOREIGN KEY (user_id) REFERENCES public.auth_user(id) DEFERRABLE INITIALLY DEFERRED;

--

-- Name: auth_user_user_permissions auth_user_user_permi_permission_id_1fbb5f2c_fk_auth_perm; Type: FK CONSTRAINT; Schema: public; Owner: student

--

ALTER TABLE ONLY public.auth_user_user_permissions

ADD CONSTRAINT auth_user_user_permi_permission_id_1fbb5f2c_fk_auth_perm FOREIGN KEY (permission_id) REFERENCES public.auth_permission(id) DEFERRABLE INITIALLY DEFERRED;

__

-- Name: auth_user_user_permissions auth_user_user_permissions_user_id_a95ead1b_fk_auth_user_id; Type: FK CONSTRAINT; Schema: public; Owner: student

ALTER TABLE ONLY public.auth user user permissions ADD CONSTRAINT auth_user_user_permissions_user_id_a95ead1b_fk_auth_user_id FOREIGN KEY (user_id) REFERENCES public.auth_user(id) DEFERRABLE INITIALLY **DEFERRED**; -- Name: django admin log django admin log content type id c4bce8eb fk django co; Type: FK CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.django_admin_log ADD CONSTRAINT django_admin_log_content_type_id_c4bce8eb_fk_django_co FOREIGN KEY (content type id) REFERENCES public.django content type(id) DEFERRABLE INITIALLY DEFERRED; -- Name: django admin log django admin log user id c564eba6 fk auth user id; Type: FK CONSTRAINT; Schema: public; Owner: student ALTER TABLE ONLY public.django_admin_log ADD CONSTRAINT django_admin_log_user_id_c564eba6_fk_auth_user_id FOREIGN KEY (user id) REFERENCES public.auth user(id) DEFERRABLE INITIALLY DEFERRED;

-- PostgreSQL database dump complete