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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Дата: 23.03.2023



Цель работы

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

Практическое задание

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

Указание:

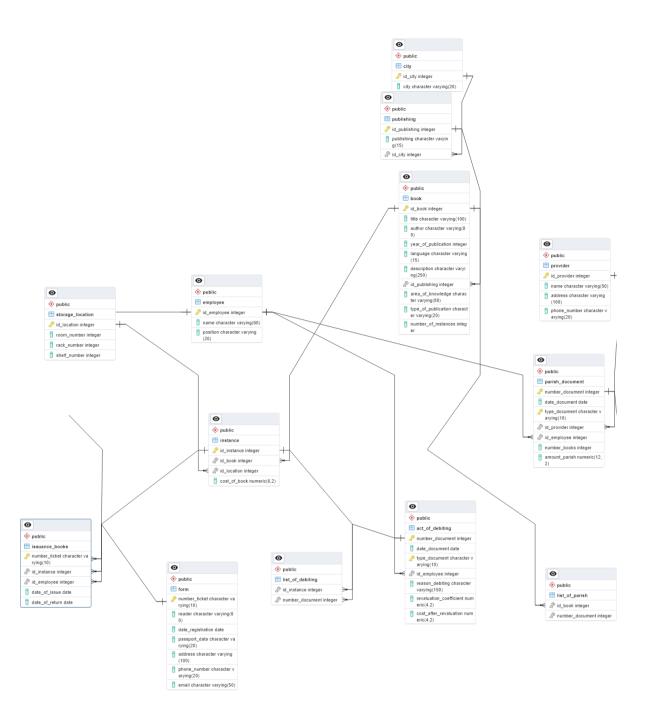
Создать две резервные копии:

- с расширением CUSTOM для восстановления БД;
- *с расширением PLAIN для листинга (в отчете);*
- при создании резервных копий БД настроить параметры Dump options для Type of objects и Queries .
- 7. Восстановить БД.

Выполнение

База Данных: library_bd

ER схема базы данных, сгенерированная при помощи pgAdmin:



```
Создание дб:
Create Database library_db;
dump бд:
-- PostgreSQL database dump
-- Dumped from database version 15.2
-- Dumped by pg_dump version 15.2
-- Started on 2023-03-23 23:41:46
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;
SET default tablespace = ";
SET default_table_access_method = heap;
-- TOC entry 228 (class 1259 OID 17311)
-- Name: act_of_debiting; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.act_of_debiting (
  number_document integer NOT NULL,
  date document date NOT NULL,
  type document character varying(10) NOT NULL,
  id_employee integer NOT NULL,
  reason_debiting character varying(150) NOT NULL,
  revaluation coefficient numeric(4,2) NOT NULL,
  cost_after_revaluation numeric(4,2) NOT NULL,
  CONSTRAINT cost_after_revaluation CHECK ((cost_after_revaluation > (0)::numeric)),
  CONSTRAINT date_act_check CHECK ((date_document >= CURRENT_DATE)),
  CONSTRAINT revaluation_coefficient_check CHECK ((revaluation_coefficient >
(0)::numeric)),
```

```
CONSTRAINT type_document_check CHECK (((type_document)::text = ANY
((ARRAY['Списание'::character varying, 'Переоценка'::character varying, 'Дарение'::character
varying, 'Прием на учет'::character varying])::text[])))
);
ALTER TABLE public.act_of_debiting OWNER TO postgres;
-- TOC entry 225 (class 1259 OID 17261)
-- Name: book; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.book (
  id_book integer NOT NULL,
  title character varying(100) NOT NULL,
  author character varying(80) NOT NULL,
  year_of_publication integer NOT NULL,
  language character varying(15) NOT NULL,
  description character varying(250),
  id_publishing integer NOT NULL,
  area_of_knowledge character varying(80) NOT NULL,
  type_of_publication character varying(20) NOT NULL,
  number of instances integer NOT NULL,
  CONSTRAINT number_of_instances CHECK ((number_of_instances >= 1)),
  CONSTRAINT year_of_publication CHECK (((year_of_publication)::numeric <
EXTRACT(year FROM CURRENT DATE)))
);
ALTER TABLE public.book OWNER TO postgres;
-- TOC entry 224 (class 1259 OID 17260)
-- Name: book_id_book_seq; Type: SEQUENCE; Schema: public; Owner: postgres
CREATE SEQUENCE public.book_id_book_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.book_id_book_seq OWNER TO postgres;
-- TOC entry 3463 (class 0 OID 0)
-- Dependencies: 224
```

```
-- Name: book_id_book_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
postgres
ALTER SEQUENCE public.book id book seq OWNED BY public.book.id book;
-- TOC entry 215 (class 1259 OID 17217)
-- Name: city; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.city (
  id city integer NOT NULL,
  city character varying(20) NOT NULL
);
ALTER TABLE public.city OWNER TO postgres;
-- TOC entry 214 (class 1259 OID 17216)
-- Name: city_id_city_seq; Type: SEQUENCE; Schema: public; Owner: postgres
CREATE SEQUENCE public.city_id_city_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.city_id_city_seq OWNER TO postgres;
-- TOC entry 3464 (class 0 OID 0)
-- Dependencies: 214
-- Name: city_id_city_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner: postgres
ALTER SEQUENCE public.city_id_city_seq OWNED BY public.city.id_city;
-- TOC entry 221 (class 1259 OID 17244)
-- Name: employee; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.employee (
  id_employee integer NOT NULL,
```

```
name character varying(60) NOT NULL,
  "position" character varying(20) NOT NULL
);
ALTER TABLE public.employee OWNER TO postgres;
-- TOC entry 220 (class 1259 OID 17243)
-- Name: employee_id_employee_seq; Type: SEQUENCE; Schema: public; Owner: postgres
CREATE SEQUENCE public.employee_id_employee_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.employee_id_employee_seq OWNER TO postgres;
-- TOC entry 3465 (class 0 OID 0)
-- Dependencies: 220
-- Name: employee id employee seq; Type: SEQUENCE OWNED BY; Schema: public;
Owner: postgres
ALTER SEQUENCE public.employee_id_employee_seq OWNED BY
public.employee.id_employee;
-- TOC entry 232 (class 1259 OID 17358)
-- Name: form; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.form (
  number_ticket character varying(10) NOT NULL,
  reader character varying(60) NOT NULL,
  date_registration date NOT NULL,
  passport_data character varying(20) NOT NULL,
  address character varying(100) NOT NULL,
  phone number character varying(20),
  email character varying(50),
  CONSTRAINT date_registration_check CHECK ((date_registration <= CURRENT_DATE)),
  CONSTRAINT email_check CHECK (((email)::text \sim '^[a-zA-Z0-9])(\+\_@]+$'::text)),
  CONSTRAINT number_ticket_check CHECK (((number_ticket)::text ~ '^[0-9\-\/]+$'::text)),
  CONSTRAINT phone number check CHECK (((phone number)::text ~ '^[0-9\)\(\+\-
]+$'::text))
```

```
);
ALTER TABLE public.form OWNER TO postgres;
-- TOC entry 230 (class 1259 OID 17328)
-- Name: instance; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.instance (
  id instance integer NOT NULL,
  id_book integer NOT NULL,
  id location integer NOT NULL,
  cost_of_book numeric(6,2) NOT NULL,
  CONSTRAINT cost of book check CHECK ((cost of book > (0)::numeric))
);
ALTER TABLE public.instance OWNER TO postgres;
-- TOC entry 229 (class 1259 OID 17327)
-- Name: instance_id_instance_seq; Type: SEQUENCE; Schema: public; Owner: postgres
CREATE SEQUENCE public.instance_id_instance_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.instance_id_instance_seq OWNER TO postgres;
-- TOC entry 3466 (class 0 OID 0)
-- Dependencies: 229
-- Name: instance_id_instance_seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
postgres
ALTER SEQUENCE public.instance_id_instance_seq OWNED BY public.instance.id_instance;
-- TOC entry 233 (class 1259 OID 17367)
-- Name: issuance_books; Type: TABLE; Schema: public; Owner: postgres
```

```
CREATE TABLE public.issuance books (
  number ticket character varying(10) NOT NULL,
  id_instance integer NOT NULL,
  id employee integer NOT NULL.
  date of issue date NOT NULL,
  date_of_return date NOT NULL,
  CONSTRAINT date_of_issue_check CHECK ((date_of_issue >= CURRENT_DATE)),
  CONSTRAINT date_of_return_check CHECK ((date_of_issue >= CURRENT_DATE))
);
ALTER TABLE public.issuance books OWNER TO postgres;
-- TOC entry 231 (class 1259 OID 17345)
-- Name: list of debiting; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.list of debiting (
  id_instance integer NOT NULL,
  number_document integer NOT NULL
);
ALTER TABLE public.list_of_debiting OWNER TO postgres;
-- TOC entry 227 (class 1259 OID 17298)
-- Name: list_of_parish; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.list_of_parish (
  id_book integer NOT NULL,
  number_document integer NOT NULL
);
ALTER TABLE public.list of parish OWNER TO postgres;
-- TOC entry 226 (class 1259 OID 17276)
-- Name: parish_document; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.parish_document (
  number document integer NOT NULL,
  date_document date NOT NULL,
  type_document character varying(10) NOT NULL,
  id_provider integer NOT NULL,
  id employee integer NOT NULL,
  number books integer NOT NULL,
  amount_parish numeric(12,2) NOT NULL,
```

```
CONSTRAINT parish document date check1 CHECK ((date document <=
CURRENT DATE)),
  CONSTRAINT parish_document_delivery_amount_check CHECK ((amount_parish >=
(0)::numeric)).
  CONSTRAINT parish document number books check CHECK ((number books >= 1)),
  CONSTRAINT parish_document_number_document_check CHECK ((number_document >
0)),
  CONSTRAINT parish document type document check CHECK (((type document)::text =
ANY ((ARRAY['Накладная'::character varying, 'Aкт'::character varying])::text[])))
);
ALTER TABLE public.parish document OWNER TO postgres;
-- TOC entry 219 (class 1259 OID 17236)
-- Name: provider; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.provider (
  id_provider integer NOT NULL,
  name character varying(50) NOT NULL,
  address character varying (100) NOT NULL,
  phone number character varying(20) NOT NULL,
  CONSTRAINT provider_phone_number_check CHECK (((phone_number)::text ~ '[0-
9)(+-]+'::text)
);
ALTER TABLE public.provider OWNER TO postgres;
-- TOC entry 218 (class 1259 OID 17235)
-- Name: provider_id_provider_seq; Type: SEQUENCE; Schema: public; Owner: postgres
CREATE SEQUENCE public.provider_id_provider_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.provider_id_provider_seq OWNER TO postgres;
-- TOC entry 3467 (class 0 OID 0)
-- Dependencies: 218
-- Name: provider id provider seq; Type: SEQUENCE OWNED BY; Schema: public; Owner:
postgres
```

```
ALTER SEQUENCE public.provider_id_provider_seq OWNED BY
public.provider.id provider;
-- TOC entry 217 (class 1259 OID 17224)
-- Name: publishing; Type: TABLE; Schema: public; Owner: postgres
CREATE TABLE public.publishing (
  id_publishing integer NOT NULL,
  publishing character varying(15) NOT NULL,
  id_city integer NOT NULL
);
ALTER TABLE public.publishing OWNER TO postgres;
-- TOC entry 216 (class 1259 OID 17223)
-- Name: publishing_id_publishing_seq; Type: SEQUENCE; Schema: public; Owner: postgres
CREATE SEQUENCE public.publishing_id_publishing_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.publishing_id_publishing_seq OWNER TO postgres;
-- TOC entry 3468 (class 0 OID 0)
-- Dependencies: 216
-- Name: publishing_id_publishing_seq; Type: SEQUENCE OWNED BY; Schema: public;
Owner: postgres
ALTER SEQUENCE public.publishing_id_publishing_seq OWNED BY
public.publishing.id_publishing;
```

-- TOC entry 223 (class 1259 OID 17251)

-- Name: storage_location; Type: TABLE; Schema: public; Owner: postgres

```
CREATE TABLE public.storage location (
  id location integer NOT NULL,
  room_number integer NOT NULL,
  rack number integer NOT NULL,
  shelf number integer NOT NULL,
  CONSTRAINT storage_location_rack_number_check CHECK ((rack_number >= 1)),
  CONSTRAINT storage_location_room_number_check CHECK ((room_number >= 1)),
  CONSTRAINT storage location shelf number check CHECK ((shelf number >= 1))
);
ALTER TABLE public.storage location OWNER TO postgres;
-- TOC entry 222 (class 1259 OID 17250)
-- Name: storage location id location seq; Type: SEQUENCE; Schema: public; Owner:
postgres
CREATE SEQUENCE public.storage_location_id_location_seq
  AS integer
  START WITH 1
  INCREMENT BY 1
  NO MINVALUE
  NO MAXVALUE
  CACHE 1;
ALTER TABLE public.storage_location_id_location_seq OWNER TO postgres;
-- TOC entry 3469 (class 0 OID 0)
-- Dependencies: 222
-- Name: storage_location_id_location_seq; Type: SEQUENCE OWNED BY; Schema: public;
Owner: postgres
ALTER SEQUENCE public.storage location id location seq OWNED BY
public.storage_location.id_location;
-- TOC entry 3232 (class 2604 OID 17264)
-- Name: book id_book; Type: DEFAULT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.book ALTER COLUMN id_book SET DEFAULT
nextval('public.book_id_book_seq'::regclass);
-- TOC entry 3227 (class 2604 OID 17220)
```

```
-- Name: city id_city; Type: DEFAULT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.city ALTER COLUMN id city SET DEFAULT
nextval('public.city_id_city_seq'::regclass);
-- TOC entry 3230 (class 2604 OID 17247)
-- Name: employee id_employee; Type: DEFAULT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.employee ALTER COLUMN id employee SET DEFAULT
nextval('public.employee_id_employee_seq'::regclass);
-- TOC entry 3233 (class 2604 OID 17331)
-- Name: instance id instance; Type: DEFAULT; Schema: public; Owner: postgres
ALTER TABLE ONLY public instance ALTER COLUMN id instance SET DEFAULT
nextval('public.instance_id_instance_seq'::regclass);
-- TOC entry 3229 (class 2604 OID 17239)
-- Name: provider id_provider; Type: DEFAULT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.provider ALTER COLUMN id_provider SET DEFAULT
nextval('public.provider_id_provider_seq'::regclass);
-- TOC entry 3228 (class 2604 OID 17227)
-- Name: publishing id_publishing; Type: DEFAULT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.publishing ALTER COLUMN id_publishing SET DEFAULT
nextval('public.publishing_id_publishing_seq'::regclass);
-- TOC entry 3231 (class 2604 OID 17254)
-- Name: storage location id location; Type: DEFAULT; Schema: public; Owner: postgres
```

ALTER TABLE ONLY public.storage_location ALTER COLUMN id_location SET DEFAULT nextval('public.storage_location_id_location_seq'::regclass);

```
-- TOC entry 3452 (class 0 OID 17311)
-- Dependencies: 228
-- Data for Name: act of debiting; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.act_of_debiting (number_document, date_document, type_document,
id employee, reason debiting, revaluation coefficient, cost after revaluation) FROM stdin;
                                         Книга с оппибками 0.30
       2023-03-23
                    Дарение
                                                                    60.90
1
١.
-- TOC entry 3449 (class 0 OID 17261)
-- Dependencies: 225
-- Data for Name: book; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.book (id_book, title, author, year_of_publication, language, description,
id_publishing, area_of_knowledge, type_of_publication, number_of_instances) FROM stdin;
       Собачье Сердце
                           Михаил Булгаков
1
                                                      русский
                                                                    N
       Художественная литература
2
       Севастопольские рассказы Л.Н. Толстой 1855
                                                      русский
                                                                           2
       Художественная литература
                                        Печатная
       Цветы для Элджернона
                                  Дэниел Киз 1959
                                                      русский
3
                                                                           2
                                                                    \N
       Художественная литература
                                        Печатная
١.
-- TOC entry 3439 (class 0 OID 17217)
-- Dependencies: 215
-- Data for Name: city; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.city (id_city, city) FROM stdin;
       Санкт-Петербург
1
2
       Москва
3
       Саратов
-- TOC entry 3445 (class 0 OID 17244)
-- Dependencies: 221
-- Data for Name: employee; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.employee (id_employee, name, "position") FROM stdin;
       Иванов Иван Иванович
1
                                  менеджер
2
       Иванов Иван Дмитриевич продавец
\.
```

```
-- TOC entry 3456 (class 0 OID 17358)
-- Dependencies: 232
-- Data for Name: form; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.form (number_ticket, reader, date_registration, passport_data, address,
phone_number, email) FROM stdin;
      Дмтрий Лидер
                           2023-03-23
                                         12312323
                                                       Санкт-Петербург, дом 1
      +7(213)123-21-12
                           \N
      Александра Лидер
                           2023-03-23
1-11
                                         12312323
                                                       Санкт-Петербург, дом 2
      +7(223)123-21-12
                           \N
\.
-- TOC entry 3454 (class 0 OID 17328)
-- Dependencies: 230
-- Data for Name: instance; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.instance (id_instance, id_book, id_location, cost_of_book) FROM stdin;
                     200.00
             1
2
       2
             1
                     203.00
-- TOC entry 3457 (class 0 OID 17367)
-- Dependencies: 233
-- Data for Name: issuance_books; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.issuance_books (number_ticket, id_instance, id_employee, date_of_issue,
date of return) FROM stdin;
1-01
     2
             2
                     2023-03-23
                                  2023-03-23
\.
-- TOC entry 3455 (class 0 OID 17345)
-- Dependencies: 231
-- Data for Name: list_of_debiting; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.list_of_debiting (id_instance, number_document) FROM stdin;
\.
```

```
-- TOC entry 3451 (class 0 OID 17298)
-- Dependencies: 227
-- Data for Name: list of parish; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.list_of_parish (id_book, number_document) FROM stdin;
       11
\.
-- TOC entry 3450 (class 0 OID 17276)
-- Dependencies: 226
-- Data for Name: parish_document; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.parish_document (number_document, date_document, type_document,
id provider, id employee, number books, amount parish) FROM stdin;
11
       2023-03-23 Акт
                           1
                                  1
                                                3000.00
\.
-- TOC entry 3443 (class 0 OID 17236)
-- Dependencies: 219
-- Data for Name: provider; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.provider (id_provider, name, address, phone_number) FROM stdin;
       Поставщик г. Моска, ул. Арбат 1 +7(234)123-21-11
2
       Поставщик2 г. Моска, ул. Арбат 2 +7(234)122-23-61
\.
-- TOC entry 3441 (class 0 OID 17224)
-- Dependencies: 217
-- Data for Name: publishing; Type: TABLE DATA; Schema: public; Owner: postgres
COPY public.publishing (id_publishing, publishing, id_city) FROM stdin;
       Питер 1
2
       Азбука
                     2
\.
-- TOC entry 3447 (class 0 OID 17251)
-- Dependencies: 223
-- Data for Name: storage_location; Type: TABLE DATA; Schema: public; Owner: postgres
```

```
stdin;
1
       1
              1
                     1
2
       2
              2
                     2
\.
-- TOC entry 3470 (class 0 OID 0)
-- Dependencies: 224
-- Name: book id book seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
SELECT pg_catalog.setval('public.book_id_book_seq', 3, true);
-- TOC entry 3471 (class 0 OID 0)
-- Dependencies: 214
-- Name: city_id_city_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
SELECT pg catalog.setval('public.city id city seq', 3, true);
-- TOC entry 3472 (class 0 OID 0)
-- Dependencies: 220
-- Name: employee_id_employee_seq; Type: SEQUENCE SET; Schema: public; Owner:
postgres
SELECT pg_catalog.setval('public.employee_id_employee_seq', 2, true);
-- TOC entry 3473 (class 0 OID 0)
-- Dependencies: 229
-- Name: instance_id_instance_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
SELECT pg_catalog.setval('public.instance_id_instance_seq', 2, true);
-- TOC entry 3474 (class 0 OID 0)
-- Dependencies: 218
-- Name: provider_id_provider_seq; Type: SEQUENCE SET; Schema: public; Owner: postgres
SELECT pg_catalog.setval('public.provider_id_provider_seq', 2, true);
```

COPY public.storage location (id location, room number, rack number, shelf number) FROM

```
-- TOC entry 3475 (class 0 OID 0)
-- Dependencies: 216
-- Name: publishing_id_publishing_seq; Type: SEQUENCE SET; Schema: public; Owner:
postgres
SELECT pg_catalog.setval('public.publishing_id_publishing_seq', 2, true);
-- TOC entry 3476 (class 0 OID 0)
-- Dependencies: 222
-- Name: storage location id location seq; Type: SEQUENCE SET; Schema: public; Owner:
postgres
SELECT pg_catalog.setval('public.storage_location_id_location_seq', 2, true);
-- TOC entry 3273 (class 2606 OID 17321)
-- Name: act_of_debiting act_of_debiting_number_act_uniqe; Type: CONSTRAINT; Schema:
public; Owner: postgres
ALTER TABLE ONLY public.act_of_debiting
  ADD CONSTRAINT act_of_debiting_number_act_uniqe UNIQUE (number_document);
-- TOC entry 3275 (class 2606 OID 17319)
-- Name: act_of_debiting act_of_debiting_pkey; Type: CONSTRAINT; Schema: public; Owner:
postgres
ALTER TABLE ONLY public.act of debiting
  ADD CONSTRAINT act_of_debiting_pkey PRIMARY KEY (number_document,
type_document);
-- TOC entry 3257 (class 2606 OID 17222)
-- Name: city city_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.city
  ADD CONSTRAINT city_pkey PRIMARY KEY (id_city);
```

```
-- TOC entry 3263 (class 2606 OID 17249)
-- Name: employee employee_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.employee
  ADD CONSTRAINT employee_pkey PRIMARY KEY (id_employee);
-- TOC entry 3279 (class 2606 OID 17366)
-- Name: form form pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.form
  ADD CONSTRAINT form pkey PRIMARY KEY (number ticket);
-- TOC entry 3267 (class 2606 OID 17270)
-- Name: book id_book_pk; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.book
  ADD CONSTRAINT id_book_pk PRIMARY KEY (id_book);
-- TOC entry 3277 (class 2606 OID 17334)
-- Name: instance instance_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.instance
  ADD CONSTRAINT instance_pkey PRIMARY KEY (id_instance);
-- TOC entry 3269 (class 2606 OID 17285)
-- Name: parish_document parish_document_pk; Type: CONSTRAINT; Schema: public;
Owner: postgres
ALTER TABLE ONLY public.parish_document
  ADD CONSTRAINT parish_document_pk PRIMARY KEY (number_document,
type_document);
-- TOC entry 3271 (class 2606 OID 17287)
-- Name: parish_document parish_document_unique; Type: CONSTRAINT; Schema: public;
Owner: postgres
```

```
-- TOC entry 3281 (class 2606 OID 17373)
-- Name: issuance_books pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.issuance_books
  ADD CONSTRAINT pkey PRIMARY KEY (number ticket);
-- TOC entry 3261 (class 2606 OID 17242)
-- Name: provider provider_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.provider
  ADD CONSTRAINT provider_pkey PRIMARY KEY (id_provider);
-- TOC entry 3259 (class 2606 OID 17229)
-- Name: publishing publishing_pkey; Type: CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.publishing
  ADD CONSTRAINT publishing_pkey PRIMARY KEY (id_publishing);
-- TOC entry 3265 (class 2606 OID 17259)
-- Name: storage_location storage_location_pkey; Type: CONSTRAINT; Schema: public;
Owner: postgres
ALTER TABLE ONLY public.storage location
  ADD CONSTRAINT storage_location_pkey PRIMARY KEY (id_location);
-- TOC entry 3282 (class 2606 OID 17230)
-- Name: publishing code_city; Type: FK CONSTRAINT; Schema: public; Owner: postgres
ALTER TABLE ONLY public.publishing
  ADD CONSTRAINT code_city FOREIGN KEY (id_city) REFERENCES
```

ADD CONSTRAINT parish_document_unique UNIQUE (number_document);

ALTER TABLE ONLY public.parish document

public.city(id_city);

--

- -- TOC entry 3293 (class 2606 OID 17374)
- -- Name: issuance_books code_employee; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.issuance_books

ADD CONSTRAINT code_employee FOREIGN KEY (id_employee) REFERENCES public.employee(id_employee);

--

- -- TOC entry 3288 (class 2606 OID 17322)
- -- Name: act_of_debiting code_employee_fk; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.act_of_debiting

ADD CONSTRAINT code_employee_fk FOREIGN KEY (id_employee) REFERENCES public.employee(id_employee);

--

- -- TOC entry 3283 (class 2606 OID 17271)
- -- Name: book code_publishing; Type: FK CONSTRAINT; Schema: public; Owner: postgres

ALTER TABLE ONLY public.book

ADD CONSTRAINT code_publishing FOREIGN KEY (id_publishing) REFERENCES public.publishing(id_publishing);

--

- -- TOC entry 3286 (class 2606 OID 17301)
- -- Name: list_of_parish id_book_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.list_of_parish

ADD CONSTRAINT id_book_fkey FOREIGN KEY (id_book) REFERENCES public.book(id_book);

--

- -- TOC entry 3287 (class 2606 OID 17306)
- -- Name: list_of_parish id_document_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.list_of_parish

ADD CONSTRAINT id_document_fkey FOREIGN KEY (number_document) REFERENCES public.parish_document(number_document);

--

- -- TOC entry 3291 (class 2606 OID 17348)
- -- Name: list_of_debiting id_instance_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.list_of_debiting

ADD CONSTRAINT id_instance_fkey FOREIGN KEY (id_instance) REFERENCES public.instance(id_instance);

--

- -- TOC entry 3289 (class 2606 OID 17335)
- -- Name: instance_instance_code_location_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.instance

ADD CONSTRAINT instance_code_location_fkey FOREIGN KEY (id_location) REFERENCES public.storage_location(id_location);

--

- -- TOC entry 3290 (class 2606 OID 17340)
- -- Name: instance instance_registration_number_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.instance

ADD CONSTRAINT instance_registration_number_fkey FOREIGN KEY (id_book) REFERENCES public.book(id_book);

--

- -- TOC entry 3294 (class 2606 OID 17384)
- -- Name: issuance_books inventory_number; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.issuance_books

ADD CONSTRAINT inventory_number FOREIGN KEY (id_instance) REFERENCES public.instance(id_instance);

--

- -- TOC entry 3292 (class 2606 OID 17353)
- -- Name: list_of_debiting number_document_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.list of debiting

ADD CONSTRAINT number_document_fkey FOREIGN KEY (number_document) REFERENCES public.act_of_debiting(number_document);

--

- -- TOC entry 3295 (class 2606 OID 17379)
- -- Name: issuance_books number_ticket; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.issuance_books

ADD CONSTRAINT number_ticket FOREIGN KEY (number_ticket) REFERENCES public.form(number_ticket);

--

- -- TOC entry 3284 (class 2606 OID 17288)
- -- Name: parish_document parish_document_employee_code_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.parish_document

ADD CONSTRAINT parish_document_employee_code_fkey FOREIGN KEY (id_employee) REFERENCES public.employee(id_employee);

--

- -- TOC entry 3285 (class 2606 OID 17293)
- -- Name: parish_document parish_document_provider_code_fkey; Type: FK CONSTRAINT; Schema: public; Owner: postgres

--

ALTER TABLE ONLY public.parish_document

ADD CONSTRAINT parish_document_provider_code_fkey FOREIGN KEY (id_provider) REFERENCES public.provider(id_provider);

-- Completed on 2023-03-23 23:41:46

--

-- PostgreSQL database dump complete

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Вывод:

В ходе проделанной работы были освоены стандартные инструменты графического интерфейса для СУБД PostgreSQL, также инструменты резервного копирования и восстановления БД.