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федеральное государственное автономное образовательное учреждение высшего
образования
«НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО»

Отчет

по лабораторной работе №3.2 «Создание таблиц базы данных PostgreSQL. Заполнение
таблиц рабочими данными»

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

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Цель работы

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

Практическое задание

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

Указание:

Создать две резервные копии:

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

Выполнение

Вариант 19. БД «Банк»

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

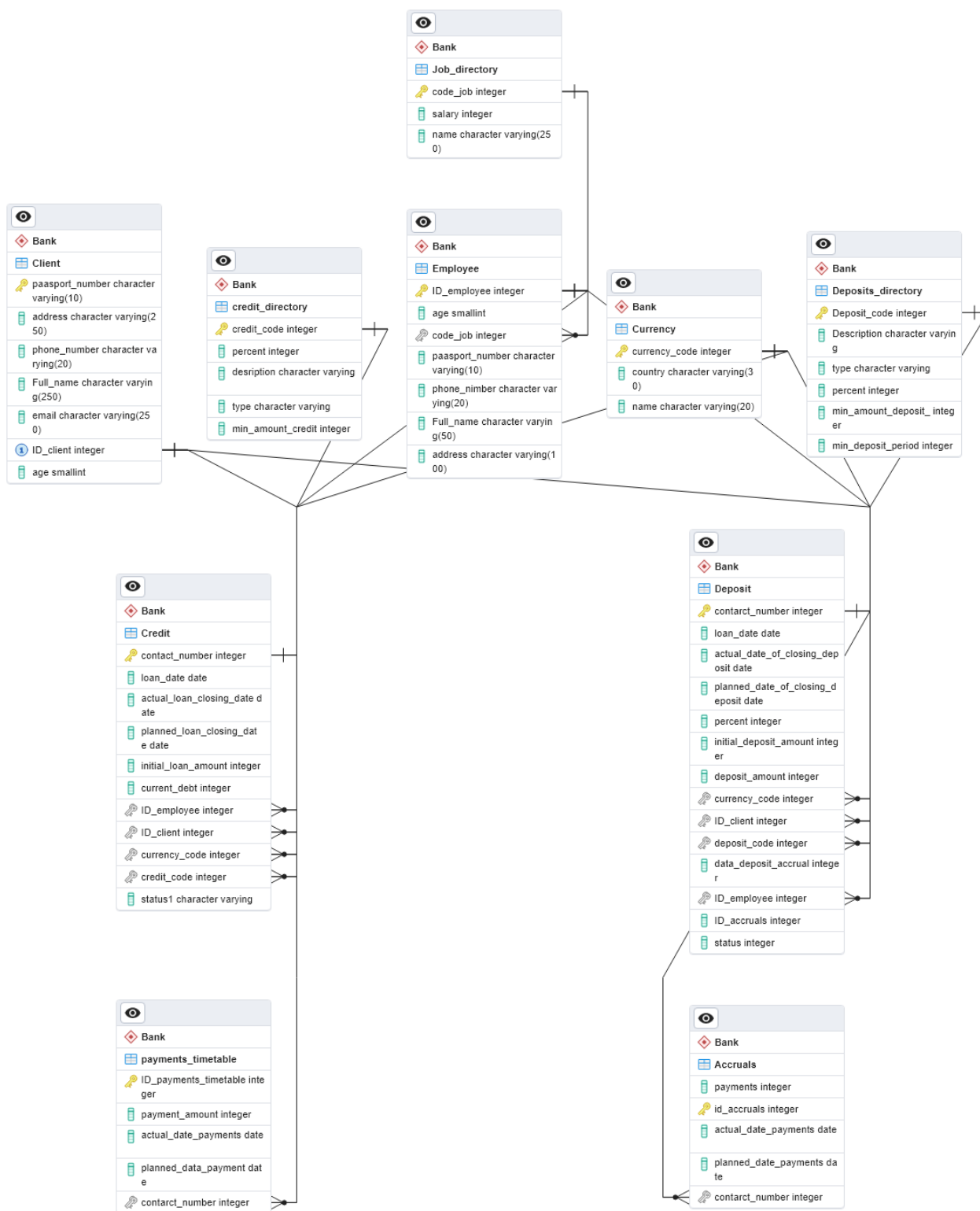


Рисунок 1 – Схема логической модели базы данных.

Листинг кода дампа приведен ниже в листинге 1:

Листинг 1 – Описание атрибутов сущностей

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

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--
-- Dumped from database version 16.1
-- Dumped by pg_dump version 16.1
-- Started on 2023-11-28 18:29:49

SET statement_timeout = 0;
SET lock_timeout = 0;
SET idle_in_transaction_session_timeout = 0;
SET client_encoding = 'UTF8';
SET standard_conforming_strings = on;
SELECT pg_catalog.set_config('search_path', '', false);
SET check_function_bodies = false;
SET xmloption = content;
SET client_min_messages = warning;
SET row_security = off;

--
-- TOC entry 4891 (class 1262 OID 16607)
-- Name: Bank; Type: DATABASE; Schema: -; Owner: postgres
--

CREATE DATABASE "Bank" WITH TEMPLATE = template0 ENCODING = 'UTF8'
LOCALE_PROVIDER = libc LOCALE = 'Russian_Russia.1251';

ALTER DATABASE "Bank" OWNER TO postgres;

\connect "Bank"

SET statement_timeout = 0;
SET lock_timeout = 0;
SET idle_in_transaction_session_timeout = 0;
SET client_encoding = 'UTF8';
SET standard_conforming_strings = on;
SELECT pg_catalog.set_config('search_path', '', false);
SET check_function_bodies = false;
SET xmloption = content;
SET client_min_messages = warning;
SET row_security = off;

--
-- TOC entry 6 (class 2615 OID 16608)
-- Name: Bank; Type: SCHEMA; Schema: -; Owner: postgres
--

CREATE SCHEMA "Bank";

ALTER SCHEMA "Bank" OWNER TO postgres;

SET default_tablespace = '';

SET default_table_access_method = heap;

--
-- TOC entry 216 (class 1259 OID 16609)
-- Name: Accruals; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Accruals" (
    payments integer NOT NULL,

```

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        id_accruals integer NOT NULL,
        actual_date_payments date,
        planned_date_payments date NOT NULL,
        contract_number integer NOT NULL,
        CONSTRAINT paymentscheck1 CHECK ((payments > 0))
    );

ALTER TABLE "Bank"."Accruals" OWNER TO postgres;

--
-- TOC entry 217 (class 1259 OID 16613)
-- Name: Client; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Client" (
    passport_number character varying(10) NOT NULL,
    address character varying(250) NOT NULL,
    phone_number character varying(20) NOT NULL,
    "Full_name" character varying(250) NOT NULL,
    email character varying(250),
    "ID_client" integer NOT NULL,
    age smallint NOT NULL,
    CONSTRAINT age_check CHECK ((age > 17))
);

ALTER TABLE "Bank"."Client" OWNER TO postgres;

--
-- TOC entry 218 (class 1259 OID 16619)
-- Name: Credit; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Credit" (
    contact_number integer NOT NULL,
    loan_date date NOT NULL,
    actual_loan_closing_date date,
    planned_loan_closing_date date NOT NULL,
    initial_loan_amount integer NOT NULL,
    current_debt integer NOT NULL,
    "ID_employee" integer NOT NULL,
    "ID_client" integer NOT NULL,
    currency_code integer NOT NULL,
    credit_code integer NOT NULL,
    status1 character varying NOT NULL,
    CONSTRAINT closing_date CHECK ((actual_loan_closing_date > loan_date))
);

ALTER TABLE "Bank"."Credit" OWNER TO postgres;

--
-- TOC entry 219 (class 1259 OID 16625)
-- Name: Currency; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Currency" (
    currency_code integer NOT NULL,
    country character varying(30) NOT NULL,
    name character varying(20) NOT NULL
);

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ALTER TABLE "Bank"."Currency" OWNER TO postgres;

--
-- TOC entry 220 (class 1259 OID 16628)
-- Name: Deposit; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Deposit" (
    contact_number integer NOT NULL,
    loan_date date NOT NULL,
    actual_date_of_closing_deposit date,
    planned_date_of_closing_deposit date NOT NULL,
    percent integer NOT NULL,
    initial_deposit_amount integer NOT NULL,
    deposit_amount integer NOT NULL,
    currency_code integer NOT NULL,
    "ID_client" integer NOT NULL,
    deposit_code integer NOT NULL,
    data_deposit_accrual integer NOT NULL,
    "ID_employee" integer NOT NULL,
    "ID_accruals" integer NOT NULL,
    status integer
);

ALTER TABLE "Bank"."Deposit" OWNER TO postgres;

--
-- TOC entry 221 (class 1259 OID 16631)
-- Name: Deposits_directory; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Deposits_directory" (
    "Deposit_code" integer NOT NULL,
    "Description" character varying NOT NULL,
    type character varying NOT NULL,
    percent integer NOT NULL,
    min_amount_deposit_ integer NOT NULL,
    min_deposit_period integer NOT NULL,
    CONSTRAINT min_amount_deposit_check1 CHECK ((min_amount_deposit_ > 0)),
    CONSTRAINT min_deposit_period CHECK ((min_deposit_period > 0)),
    CONSTRAINT "percent check1" CHECK ((percent > 0)),
    CONSTRAINT "percent check12" CHECK ((percent < 100))
);

ALTER TABLE "Bank"."Deposits_directory" OWNER TO postgres;

--
-- TOC entry 222 (class 1259 OID 16640)
-- Name: Employee; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Employee" (
    "ID_employee" integer NOT NULL,
    age smallint NOT NULL,
    code_job integer NOT NULL,
    passport_number character varying(10) NOT NULL,
    phone_number character varying(20) NOT NULL,
    "Full_name" character varying(50) NOT NULL,
    address character varying(100) NOT NULL
);

```

```

ALTER TABLE "Bank"."Employee" OWNER TO postgres;

--
-- TOC entry 223 (class 1259 OID 16643)
-- Name: Job_directory; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank"."Job_directory" (
    code_job integer NOT NULL,
    salary integer,
    name character varying(250) NOT NULL
);

ALTER TABLE "Bank"."Job_directory" OWNER TO postgres;

--
-- TOC entry 224 (class 1259 OID 16646)
-- Name: credit_directory; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank".credit_directory (
    credit_code integer NOT NULL,
    percent integer NOT NULL,
    desription character varying NOT NULL,
    type character varying NOT NULL,
    min_amount_credit integer NOT NULL
);

ALTER TABLE "Bank".credit_directory OWNER TO postgres;

--
-- TOC entry 225 (class 1259 OID 16651)
-- Name: payments_timetable; Type: TABLE; Schema: Bank; Owner: postgres
--

CREATE TABLE "Bank".payments_timetable (
    "ID_payments_timetable" integer NOT NULL,
    payment_amount integer NOT NULL,
    actual_date_payments date NOT NULL,
    planned_data_payment date NOT NULL,
    contarct_number integer NOT NULL
);

ALTER TABLE "Bank".payments_timetable OWNER TO postgres;

--
-- TOC entry 4876 (class 0 OID 16609)
-- Dependencies: 216
-- Data for Name: Accruals; Type: TABLE DATA; Schema: Bank; Owner: postgres
--

INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contarct_number) VALUES (10000, 10, '2022-11-05',
'2022-11-10', 9);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contarct_number) VALUES (9000, 9, '2023-01-01', '2023-
01-01', 2);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,

```



```

planned_date_payments, contrarct_number) VALUES (8000, 8, '2022-09-07', '2022-
09-01', 3);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contrarct_number) VALUES (7000, 7, NULL, '2023-03-01',
4);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contrarct_number) VALUES (6000, 6, NULL, '2022-12-01',
8);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contrarct_number) VALUES (5000, 5, '2022-10-05', '2022-
10-10', 9);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contrarct_number) VALUES (4000, 4, NULL, '2022-10-01',
8);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contrarct_number) VALUES (3000, 3, NULL, '2022-07-01',
4);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contrarct_number) VALUES (2000, 2, '2022-06-07', '2022-
06-01', 3);
INSERT INTO "Bank"."Accruals" (payments, id_accruals, actual_date_payments,
planned_date_payments, contrarct_number) VALUES (1000, 1, '2022-06-01', '2022-
06-01', 2);

--
-- TOC entry 4877 (class 0 OID 16613)
-- Dependencies: 217
-- Data for Name: Client; Type: TABLE DATA; Schema: Bank; Owner: postgres
--

INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('1234567890', '123 Main St,
Anytown', '555-1234', 'John Smith', 'john.smith@example.com', 1, 25);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('0987654321', '456 Elm St,
Anytown', '555-5678', 'Jane Doe', 'jane.doe@example.com', 2, 30);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('1234509876', '789 Oak St,
Anytown', '555-9101', 'Michael Johnson', 'michael.johnson@example.com', 3,
35);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('9876543210', '987 Pine St,
Anytown', '555-1122', 'Emily Davis', 'emily.davis@example.com', 4, 40);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('5678901234', '321 Cedar St,
Anytown', '555-3344', 'David Wilson', 'david.wilson@example.com', 5, 45);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('4321098765', '654 Birch St,
Anytown', '555-5566', 'Sarah Anderson', 'sarah.anderson@example.com', 6, 50);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('6543210987', '987 Maple St,
Anytown', '555-7788', 'Jessica Thompson', 'jessica.thompson@example.com', 7,
55);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('7890123456', '876 Walnut St,
Anytown', '555-9900', 'Christopher Lee', 'christopher.lee@example.com', 8,
60);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,
"Full_name", email, "ID_client", age) VALUES ('2109876543', '543 Cherry St,
Anytown', '555-0011', 'Olivia Martinez', 'olivia.martinez@example.com', 9,
65);
INSERT INTO "Bank"."Client" (paasport_number, address, phone_number,

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"Full_name", email, "ID_client", age) VALUES ('3210987654', '210 Pineapple
St, Anytown', '555-2233', 'Matthew Rodriguez',
'matthew.rodriguez@example.com', 10, 70);

--
-- TOC entry 4878 (class 0 OID 16619)
-- Dependencies: 218
-- Data for Name: Credit; Type: TABLE DATA; Schema: Bank; Owner: postgres
--

INSERT INTO "Bank"."Credit" (contact_number, loan_date,
actual_loan_closing_date, planned_loan_closing_date, initial_loan_amount,
current_debt, "ID_employee", "ID_client", currency_code, credit_code,
status1) VALUES (5, '2022-10-11', '2022-12-11', '2022-12-11', 1000, 0, 5, 3,
5, 5, 'Finished');
INSERT INTO "Bank"."Credit" (contact_number, loan_date,
actual_loan_closing_date, planned_loan_closing_date, initial_loan_amount,
current_debt, "ID_employee", "ID_client", currency_code, credit_code,
status1) VALUES (4, '2022-08-28', '2022-10-28', '2022-10-28', 500000, 0, 4,
2, 4, 4, 'Finished');
INSERT INTO "Bank"."Credit" (contact_number, loan_date,
actual_loan_closing_date, planned_loan_closing_date, initial_loan_amount,
current_debt, "ID_employee", "ID_client", currency_code, credit_code,
status1) VALUES (3, '2022-07-15', '2022-10-15', '2022-10-15', 15000, 1000, 3,
2, 3, 3, 'Active');
INSERT INTO "Bank"."Credit" (contact_number, loan_date,
actual_loan_closing_date, planned_loan_closing_date, initial_loan_amount,
current_debt, "ID_employee", "ID_client", currency_code, credit_code,
status1) VALUES (2, '2022-06-09', '2023-01-09', '2023-02-09', 70000, 10000,
2, 1, 2, 2, 'Active');
INSERT INTO "Bank"."Credit" (contact_number, loan_date,
actual_loan_closing_date, planned_loan_closing_date, initial_loan_amount,
current_debt, "ID_employee", "ID_client", currency_code, credit_code,
status1) VALUES (1, '2022-03-25', '2023-03-25', '2023-02-25', 20000, 7000, 1,
1, 1, 1, 'Active');

--
-- TOC entry 4879 (class 0 OID 16625)
-- Dependencies: 219
-- Data for Name: Currency; Type: TABLE DATA; Schema: Bank; Owner: postgres
--

INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (1,
'United States', 'USD');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (2,
'United Kingdom', 'GBP');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (3,
'Eurozone', 'EUR');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (4,
'Japan', 'JPY');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (5,
'Canada', 'CAD');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (6,
'Australia', 'AUD');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (7,
'Switzerland', 'CHF');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (8,
'Sweden', 'SEK');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (9,
'South Korea', 'KRW');
INSERT INTO "Bank"."Currency" (currency_code, country, name) VALUES (10,

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'China', 'CNY');

--
-- TOC entry 4880 (class 0 OID 16628)
-- Dependencies: 220
-- Data for Name: Deposit; Type: TABLE DATA; Schema: Bank; Owner: postgres
--

INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (1, '2022-01-01', '2023-01-01', '2023-01-01', 3, 10000, 5000, 1, 1, 1,
1, 1, 1, 2);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (2, '2022-02-01', NULL, '2023-02-01', 4, 20000, 15000, 1, 2, 2, 2, 1,
2, 3);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (3, '2022-03-01', NULL, '2023-03-01', 2, 5000, 5000, 2, 3, 3, 3, 2, 3,
1);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (4, '2022-04-01', NULL, '2023-04-01', 5, 30000, 25000, 1, 4, 4, 4, 2,
4, 2);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (5, '2022-05-01', '2023-05-01', '2023-05-01', 1, 100000, 50000, 1, 5,
5, 5, 2, 5, 1);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (6, '2022-06-01', '2022-12-01', '2023-06-01', 3, 15000, 10000, 1, 1,
2, 16, 1, 6, 1);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (7, '2022-07-01', '2023-01-01', '2023-07-01', 2, 5000, 3000, 2, 2, 3,
17, 2, 7, 2);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (8, '2022-08-01', NULL, '2023-08-01', 4, 20000, 20000, 1, 3, 4, 11, 1,
8, 3);
INSERT INTO "Bank"."Deposit" (contract_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (9, '2022-09-01', NULL, '2023-09-01', 3, 10000, 8000, 1, 4, 5, 9, 2,
9, 1);

```

```

INSERT INTO "Bank"."Deposit" (contact_number, loan_date,
actual_date_of_closing_deposit, planned_date_of_closing_deposit, percent,
initial_deposit_amount, deposit_amount, currency_code, "ID_client",
deposit_code, data_deposit_accrual, "ID_employee", "ID_accruals", status)
VALUES (10, '2022-10-01', '2023-01-01', '2023-10-01', 2, 5000, 5000, 2, 5, 1,
18, 2, 10, 2);

--
-- TOC entry 4881 (class 0 OID 16631)
-- Dependencies: 221
-- Data for Name: Deposits_directory; Type: TABLE DATA; Schema: Bank; Owner:
postgres
--

INSERT INTO "Bank"."Deposits_directory" ("Deposit_code", "Description", type,
percent, min_amount_deposit_, min_deposit_period) VALUES (1, 'Standard
Deposit', 'Standard', 3, 10000, 12);
INSERT INTO "Bank"."Deposits_directory" ("Deposit_code", "Description", type,
percent, min_amount_deposit_, min_deposit_period) VALUES (2, 'Fixed Deposit',
'Fixed', 4, 50000, 24);
INSERT INTO "Bank"."Deposits_directory" ("Deposit_code", "Description", type,
percent, min_amount_deposit_, min_deposit_period) VALUES (3, 'Flexi Deposit',
'Flexi', 2, 20000, 6);
INSERT INTO "Bank"."Deposits_directory" ("Deposit_code", "Description", type,
percent, min_amount_deposit_, min_deposit_period) VALUES (4, 'Senior Citizen
Deposit', 'Senior Citizen', 5, 25000, 12);
INSERT INTO "Bank"."Deposits_directory" ("Deposit_code", "Description", type,
percent, min_amount_deposit_, min_deposit_period) VALUES (5, 'Corporate
Deposit', 'Corporate', 1, 100000, 36);

--
-- TOC entry 4882 (class 0 OID 16640)
-- Dependencies: 222
-- Data for Name: Employee; Type: TABLE DATA; Schema: Bank; Owner: postgres
--

INSERT INTO "Bank"."Employee" ("ID_employee", age, code_job, passport_number,
phone_number, "Full_name", address) VALUES (1, 25, 101, 'AB1234567', '123-
456-7890', 'John Smith', '123 Main St');
INSERT INTO "Bank"."Employee" ("ID_employee", age, code_job, passport_number,
phone_number, "Full_name", address) VALUES (2, 30, 104, 'CD9876543', '987-
654-3210', 'Jane Doe', '456 Oak St');
INSERT INTO "Bank"."Employee" ("ID_employee", age, code_job, passport_number,
phone_number, "Full_name", address) VALUES (3, 28, 106, 'EF5432109', '456-
789-0123', 'Michael Johnson', '789 Elm St');
INSERT INTO "Bank"."Employee" ("ID_employee", age, code_job, passport_number,
phone_number, "Full_name", address) VALUES (4, 35, 100, 'GH0987654', '789-
012-3456', 'Emily Wilson', '321 Maple Ave');
INSERT INTO "Bank"."Employee" ("ID_employee", age, code_job, passport_number,
phone_number, "Full_name", address) VALUES (5, 32, 107, 'IJ8765432', '012-
345-6789', 'David Lee', '654 Pine St');

--
-- TOC entry 4883 (class 0 OID 16643)
-- Dependencies: 223
-- Data for Name: Job_directory; Type: TABLE DATA; Schema: Bank; Owner:
postgres
--

INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (100,

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```

5000, 'Accountant');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (101,
6000, 'Manager');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (102,
7000, 'Analyst');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (103,
4500, 'Teller');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (104,
5500, 'Loan Officer');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (105,
6500, 'Auditor');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (106,
4000, 'Customer Service Representative');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (107,
7500, 'Financial Advisor');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (108,
3500, 'Bank Teller');
INSERT INTO "Bank"."Job_directory" (code_job, salary, name) VALUES (109,
8000, 'Branch Manager');

--
-- TOC entry 4884 (class 0 OID 16646)
-- Dependencies: 224
-- Data for Name: credit_directory; Type: TABLE DATA; Schema: Bank; Owner:
postgres
--

INSERT INTO "Bank".credit_directory (credit_code, percent, desription, type,
min_amount_credit) VALUES (1, 5, 'Personal Loan', 'Personal', 10000);
INSERT INTO "Bank".credit_directory (credit_code, percent, desription, type,
min_amount_credit) VALUES (2, 3, 'Home Mortgage', 'Mortgage', 50000);
INSERT INTO "Bank".credit_directory (credit_code, percent, desription, type,
min_amount_credit) VALUES (3, 8, 'Auto Loan', 'Auto', 15000);
INSERT INTO "Bank".credit_directory (credit_code, percent, desription, type,
min_amount_credit) VALUES (4, 6, 'Business Loan', 'Business', 500000);
INSERT INTO "Bank".credit_directory (credit_code, percent, desription, type,
min_amount_credit) VALUES (5, 4, 'Student Loan', 'Education', 1000);

--
-- TOC entry 4885 (class 0 OID 16651)
-- Dependencies: 225
-- Data for Name: payments_timetable; Type: TABLE DATA; Schema: Bank; Owner:
postgres
--

INSERT INTO "Bank".payments_timetable ("ID_payments_timetable",
payment_amount, actual_date_payments, planned_data_payment, contacrt_number)
VALUES (7, 30000, '2023-01-09', '2023-01-09', 2);
INSERT INTO "Bank".payments_timetable ("ID_payments_timetable",
payment_amount, actual_date_payments, planned_data_payment, contacrt_number)
VALUES (6, 6500, '2022-12-26', '2022-12-26', 1);
INSERT INTO "Bank".payments_timetable ("ID_payments_timetable",
payment_amount, actual_date_payments, planned_data_payment, contacrt_number)
VALUES (5, 1000, '2022-10-28', '2022-10-28', 5);
INSERT INTO "Bank".payments_timetable ("ID_payments_timetable",
payment_amount, actual_date_payments, planned_data_payment, contacrt_number)
VALUES (4, 500000, '2022-10-28', '2022-10-28', 4);
INSERT INTO "Bank".payments_timetable ("ID_payments_timetable",
payment_amount, actual_date_payments, planned_data_payment, contacrt_number)
VALUES (3, 14000, '2022-09-15', '2022-09-15', 3);
INSERT INTO "Bank".payments_timetable ("ID_payments_timetable",

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payment_amount, actual_date_payments, planned_data_payment, contacrt_number)
VALUES (2, 30000, '2022-09-09', '2022-09-09', 2);
INSERT INTO "Bank".payments_timetable ("ID_payments_timetable",
payment_amount, actual_date_payments, planned_data_payment, contacrt_number)
VALUES (1, 6500, '2022-07-26', '2022-07-26', 1);

--
-- TOC entry 4687 (class 2606 OID 16654)
-- Name: Employee AGE_CHECK; Type: CHECK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE "Bank"."Employee"
    ADD CONSTRAINT "AGE_CHECK" CHECK ((age > 17)) NOT VALID;

--
-- TOC entry 4693 (class 2606 OID 16656)
-- Name: Client Client_pkey; Type: CONSTRAINT; Schema: Bank; Owner: postgres
--

ALTER TABLE ONLY "Bank"."Client"
    ADD CONSTRAINT "Client_pkey" PRIMARY KEY (paasport_number);

--
-- TOC entry 4701 (class 2606 OID 16658)
-- Name: Currency Currency_pkey; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Currency"
    ADD CONSTRAINT "Currency_pkey" PRIMARY KEY (currency_code);

--
-- TOC entry 4705 (class 2606 OID 16660)
-- Name: Deposit Deposit_pkey; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Deposit"
    ADD CONSTRAINT "Deposit_pkey" PRIMARY KEY (contacrt_number);

--
-- TOC entry 4709 (class 2606 OID 16662)
-- Name: Deposits_directory Deposits_directory_pkey; Type: CONSTRAINT;
Schema: Bank; Owner: postgres
--

ALTER TABLE ONLY "Bank"."Deposits_directory"
    ADD CONSTRAINT "Deposits_directory_pkey" PRIMARY KEY ("Deposit_code");

--
-- TOC entry 4711 (class 2606 OID 16664)
-- Name: Employee Employee_pkey; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Employee"

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        ADD CONSTRAINT "Employee_pkey" PRIMARY KEY ("ID_employee");

--
-- TOC entry 4691 (class 2606 OID 16666)
-- Name: Accruals U_ID_accruals; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--
ALTER TABLE ONLY "Bank"."Accruals"
    ADD CONSTRAINT "U_ID_accruals" PRIMARY KEY (id_accruals);

--
-- TOC entry 4695 (class 2606 OID 16668)
-- Name: Client U_ID_client; Type: CONSTRAINT; Schema: Bank; Owner: postgres
--
ALTER TABLE ONLY "Bank"."Client"
    ADD CONSTRAINT "U_ID_client" UNIQUE ("ID_client");

--
-- TOC entry 4713 (class 2606 OID 16670)
-- Name: Employee U_ID_emp; Type: CONSTRAINT; Schema: Bank; Owner: postgres
--
ALTER TABLE ONLY "Bank"."Employee"
    ADD CONSTRAINT "U_ID_emp" UNIQUE ("ID_employee");

--
-- TOC entry 4703 (class 2606 OID 16672)
-- Name: Currency U_code_currency; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--
ALTER TABLE ONLY "Bank"."Currency"
    ADD CONSTRAINT "U_code_currency" UNIQUE (currency_code);

--
-- TOC entry 4715 (class 2606 OID 16674)
-- Name: Job_directory U_code_job; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--
ALTER TABLE ONLY "Bank"."Job_directory"
    ADD CONSTRAINT "U_code_job" UNIQUE (code_job);

--
-- TOC entry 4697 (class 2606 OID 16676)
-- Name: Credit U_contact_number; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--
ALTER TABLE ONLY "Bank"."Credit"
    ADD CONSTRAINT "U_contact_number" UNIQUE (contact_number);

--
-- TOC entry 4707 (class 2606 OID 16678)

```

```

-- Name: Deposit U_contrant_number; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Deposit"
    ADD CONSTRAINT "U_contrant_number" UNIQUE (contrant_number);

--
-- TOC entry 4689 (class 2606 OID 16679)
-- Name: payments_timetable actual_date_payments_check; Type: CHECK
CONSTRAINT; Schema: Bank; Owner: postgres
--

ALTER TABLE "Bank".payments_timetable
    ADD CONSTRAINT actual_date_payments_check CHECK ((actual_date_payments >=
planned_data_payment)) NOT VALID;

--
-- TOC entry 4688 (class 2606 OID 16680)
-- Name: Job_directory check_salary; Type: CHECK CONSTRAINT; Schema: Bank;
Owner: postgres
--

ALTER TABLE "Bank"."Job_directory"
    ADD CONSTRAINT check_salary CHECK ((salary > '-1'::integer)) NOT VALID;

--
-- TOC entry 4699 (class 2606 OID 16682)
-- Name: Credit contract_number; Type: CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Credit"
    ADD CONSTRAINT contract_number PRIMARY KEY (contract_number);

--
-- TOC entry 4719 (class 2606 OID 16684)
-- Name: credit_directory credit_directory_pkey; Type: CONSTRAINT; Schema:
Bank; Owner: postgres
--

ALTER TABLE ONLY "Bank".credit_directory
    ADD CONSTRAINT credit_directory_pkey PRIMARY KEY (credit_code);

--
-- TOC entry 4673 (class 2606 OID 16685)
-- Name: Credit current_debtcheck; Type: CHECK CONSTRAINT; Schema: Bank;
Owner: postgres
--

ALTER TABLE "Bank"."Credit"
    ADD CONSTRAINT current_debtcheck CHECK ((current_debt >= 0)) NOT VALID;

--
-- TOC entry 4676 (class 2606 OID 16686)
-- Name: Deposit data_deposit_accrual_check1; Type: CHECK CONSTRAINT; Schema:
Bank; Owner: postgres

```



```

--
ALTER TABLE "Bank"."Deposit"
    ADD CONSTRAINT data_deposit_accrual_check1 CHECK ((data_deposit_accrual >
0)) NOT VALID;

--
-- TOC entry 4677 (class 2606 OID 16687)
-- Name: Deposit data_deposit_accrual_check2; Type: CHECK CONSTRAINT; Schema:
Bank; Owner: postgres
--

ALTER TABLE "Bank"."Deposit"
    ADD CONSTRAINT data_deposit_accrual_check2 CHECK ((data_deposit_accrual <
29)) NOT VALID;

--
-- TOC entry 4678 (class 2606 OID 16688)
-- Name: Deposit deposit_amount_check; Type: CHECK CONSTRAINT; Schema: Bank;
Owner: postgres
--

ALTER TABLE "Bank"."Deposit"
    ADD CONSTRAINT deposit_amount_check CHECK ((deposit_amount >= 0)) NOT
VALID;

--
-- TOC entry 4679 (class 2606 OID 16689)
-- Name: Deposit initial_ammount_check; Type: CHECK CONSTRAINT; Schema: Bank;
Owner: postgres
--

ALTER TABLE "Bank"."Deposit"
    ADD CONSTRAINT initial_ammount_check CHECK ((initial_deposit_amount > 0))
NOT VALID;

--
-- TOC entry 4674 (class 2606 OID 16690)
-- Name: Credit initial_loan_amountcheck1; Type: CHECK CONSTRAINT; Schema:
Bank; Owner: postgres
--

ALTER TABLE "Bank"."Credit"
    ADD CONSTRAINT initial_loan_amountcheck1 CHECK ((initial_loan_amount >
0)) NOT VALID;

--
-- TOC entry 4717 (class 2606 OID 16694)
-- Name: Job_directory job_directory_pkey; Type: CONSTRAINT; Schema: Bank;
Owner: postgres
--

ALTER TABLE ONLY "Bank"."Job_directory"
    ADD CONSTRAINT job_directory_pkey PRIMARY KEY (code_job);

--
-- TOC entry 4721 (class 2606 OID 16698)

```

```

-- Name: payments_timetable payments_timetable_pkey; Type: CONSTRAINT;
Schema: Bank; Owner: postgres
--

ALTER TABLE ONLY "Bank".payments_timetable
    ADD CONSTRAINT payments_timetable_pkey PRIMARY KEY
("ID_payments_timetable");

--
-- TOC entry 4680 (class 2606 OID 16700)
-- Name: Deposit percent_check1; Type: CHECK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE "Bank"."Deposit"
    ADD CONSTRAINT percent_check1 CHECK ((0 < percent)) NOT VALID;

--
-- TOC entry 4681 (class 2606 OID 16701)
-- Name: Deposit percent_check2; Type: CHECK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE "Bank"."Deposit"
    ADD CONSTRAINT percent_check2 CHECK ((percent < 100)) NOT VALID;

--
-- TOC entry 4682 (class 2606 OID 16702)
-- Name: Deposit statuscheck; Type: CHECK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE "Bank"."Deposit"
    ADD CONSTRAINT statuscheck CHECK (((status < 5) AND (status > 0))) NOT
VALID;

--
-- TOC entry 4675 (class 2606 OID 16703)
-- Name: Credit statuscheck1; Type: CHECK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE "Bank"."Credit"
    ADD CONSTRAINT statuscheck1 CHECK (((status1)::text = ANY
(ARRAY[('Active'::character varying)::text, ('Finished'::character
varying)::text]))) NOT VALID;

--
-- TOC entry 4731 (class 2606 OID 16704)
-- Name: Employee Employee_fkey; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Employee"
    ADD CONSTRAINT "Employee_fkey" FOREIGN KEY (code_job) REFERENCES
"Bank"."Job_directory"(code_job) NOT VALID;

```

```

--
-- TOC entry 4727 (class 2606 OID 16709)
-- Name: Deposit ID_client_fkey; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Deposit"
    ADD CONSTRAINT "ID_client_fkey" FOREIGN KEY ("ID_client") REFERENCES
"Bank"."Client"("ID_client") NOT VALID;

--
-- TOC entry 4723 (class 2606 OID 16714)
-- Name: Credit ID_client_fkey; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Credit"
    ADD CONSTRAINT "ID_client_fkey" FOREIGN KEY ("ID_client") REFERENCES
"Bank"."Client"("ID_client") NOT VALID;

--
-- TOC entry 4728 (class 2606 OID 16719)
-- Name: Deposit ID_employee; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Deposit"
    ADD CONSTRAINT "ID_employee" FOREIGN KEY ("ID_employee") REFERENCES
"Bank"."Employee"("ID_employee") NOT VALID;

--
-- TOC entry 4724 (class 2606 OID 16724)
-- Name: Credit ID_employee; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Credit"
    ADD CONSTRAINT "ID_employee" FOREIGN KEY ("ID_employee") REFERENCES
"Bank"."Employee"("ID_employee") NOT VALID;

--
-- TOC entry 4722 (class 2606 OID 16734)
-- Name: Accruals contarct_number_fkey; Type: FK CONSTRAINT; Schema: Bank;
Owner: postgres
--

ALTER TABLE ONLY "Bank"."Accruals"
    ADD CONSTRAINT contarct_number_fkey FOREIGN KEY (contarct_number)
REFERENCES "Bank"."Deposit"(contarct_number) NOT VALID;

--
-- TOC entry 4732 (class 2606 OID 16739)
-- Name: payments_timetable contract_number_fkey; Type: FK CONSTRAINT;
Schema: Bank; Owner: postgres
--

ALTER TABLE ONLY "Bank".payments_timetable
    ADD CONSTRAINT contract_number_fkey FOREIGN KEY (contarct_number)

```

```

REFERENCES "Bank"."Credit"(contact_number) NOT VALID;

--
-- TOC entry 4725 (class 2606 OID 16744)
-- Name: Credit credit_code_fkey; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Credit"
    ADD CONSTRAINT credit_code_fkey FOREIGN KEY (credit_code) REFERENCES
"Bank".credit_directory(credit_code) NOT VALID;

--
-- TOC entry 4726 (class 2606 OID 16749)
-- Name: Credit currence_code_fkey; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Credit"
    ADD CONSTRAINT currence_code_fkey FOREIGN KEY (currency_code) REFERENCES
"Bank"."Currency"(currency_code) NOT VALID;

--
-- TOC entry 4729 (class 2606 OID 16754)
-- Name: Deposit currency_codefkey; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Deposit"
    ADD CONSTRAINT currency_codefkey FOREIGN KEY (currency_code) REFERENCES
"Bank"."Currency"(currency_code) NOT VALID;

--
-- TOC entry 4730 (class 2606 OID 16759)
-- Name: Deposit deposit_code_fkey; Type: FK CONSTRAINT; Schema: Bank; Owner:
postgres
--

ALTER TABLE ONLY "Bank"."Deposit"
    ADD CONSTRAINT deposit_code_fkey FOREIGN KEY (deposit_code) REFERENCES
"Bank"."Deposits_directory"("Deposit_code") NOT VALID;

-- Completed on 2023-11-28 18:29:49
--
-- PostgreSQL database dump complete
--

```

Вывод

В ходе лабораторной работы я научилась создавать, заполнять, восстанавливать и сохранять баз данных PostgreSQL с использованием программы pgAdmin4. В процессе лабораторной работы была создана база данных и таблицы в соответствии с заданием.

Были заданы необходимые привязки и ограничения, после чего таблица была заполнена данными. Для безопасности в случае сбоя было создано две резервные копии, которые позволили восстановить базу данных без потерь, а также посмотреть на листинг кода.