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Факультет инфокоммуникационных технологий

ЛАБОРАТОРНАЯ РАБОТА №1.2

«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.

Программное обеспечение: СУБД PostgreSQL 1X, pgAdmin 4.

Практическое задание:

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

Индивидуальное задание (вариант):

Вариант 1. БД «Отель»

Описание предметной области: Отели сети находятся в разных городах. Цены на номера одного типа во всех отелях одинаковы и зависят от типа номера и количества мест. Номер может быть забронирован, занят или свободен. При заезде в отель постояльцы проходят регистрацию. Информация о регистрации постояльцев отеля (выехавших из отеля) хранится в течение года и 1 января удаляется в архив.

Номера ежедневно убираются горничными, для чего составляется график уборки номеров. Ежедневно каждому номеру присваивается статус “убран”, “не убран”. Цены на номера могут меняться.

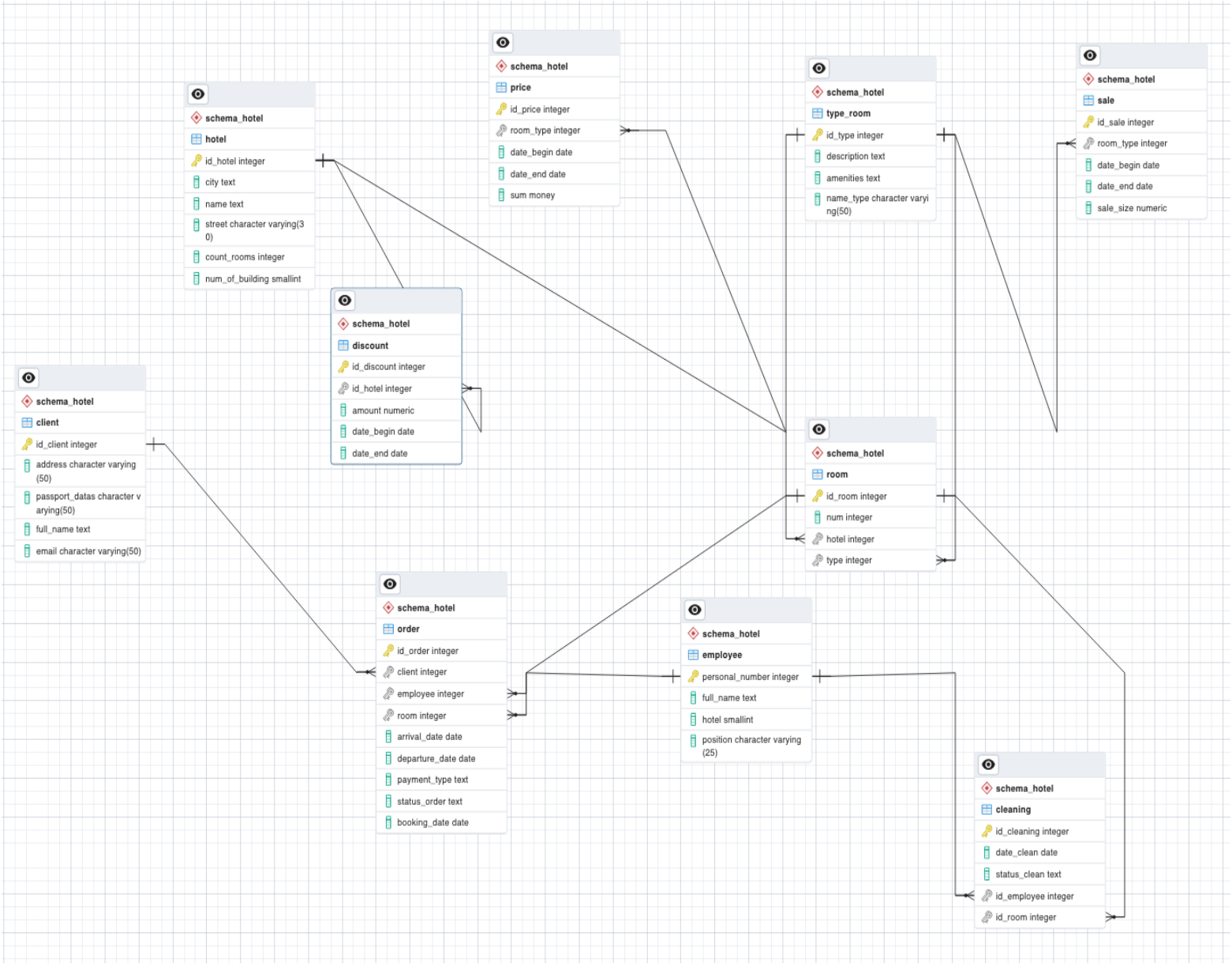
БД должна содержать следующий минимальный набор сведений: Адрес отеля. Название отеля. Номер комнаты. Тип комнаты. Количество мест. Удобства. Цена комнаты за сутки проживания. Имя постояльца. Фамилия постояльца. Отчество постояльца. Адрес постоянного проживания. Дата заезда. Дата отъезда. График уборки номеров.

Дополнить исходные данные информацией: по бронированию комнаты; по сотруднику, который регистрирует постояльца в отеле в день заезда; по оплате проживания; по составу удобств в комнате; по акциям, доступным при бронировании (скидки).

Выполнение:

1. БД «Отель»

2. Схема логической модели базы данных, сгенерированная в Generate ERD.



3. Скрипты работы с БД.

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

-- Dumped from database version 14.7
-- Dumped by pg_dump version 14.7

-- Started on 2023-03-23 14:39:26 MSK

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 16395)
-- Name: schema_hotel; Type: SCHEMA; Schema: -; Owner: postgres
--

CREATE SCHEMA schema_hotel;


ALTER SCHEMA schema_hotel OWNER TO postgres;

SET default_tablespace = '';

SET default_table_access_method = heap;

--
-- TOC entry 220 (class 1259 OID 16443)
-- Name: cleaning; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.cleaning (
    id_cleaning integer NOT NULL,
    date_clean date NOT NULL,
    status_clean text NOT NULL,
    id_employee integer NOT NULL,
    id_room integer NOT NULL
);


ALTER TABLE schema_hotel.cleaning OWNER TO postgres;

--
-- TOC entry 219 (class 1259 OID 16442)
-- Name: Cleaning_id_cleaning_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.cleaning ALTER COLUMN id_cleaning ADD GENERATED ALWAYS AS
IDENTITY (
    SEQUENCE NAME schema_hotel."Cleaning_id_cleaning_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
```

```
    CACHE 1
);


--
-- TOC entry 211 (class 1259 OID 16398)
-- Name: client; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.client (
    id_client integer NOT NULL,
    address character varying(50) NOT NULL,
    passport_datas character varying(50) NOT NULL,
    full_name text NOT NULL,
    email character varying(50) NOT NULL
);


ALTER TABLE schema_hotel.client OWNER TO postgres;

--
-- TOC entry 210 (class 1259 OID 16397)
-- Name: Client_id_client_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.client ALTER COLUMN id_client ADD GENERATED ALWAYS AS IDENTITY (
    SEQUENCE NAME schema_hotel."Client_id_client_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);


--
-- TOC entry 213 (class 1259 OID 16406)
-- Name: employee; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.employee (
    personal_number integer NOT NULL,
    full_name text NOT NULL,
    hotel smallint NOT NULL,
    "position" character varying(25) NOT NULL
);


ALTER TABLE schema_hotel.employee OWNER TO postgres;

--
```

```
-- TOC entry 212 (class 1259 OID 16405)
-- Name: Employee_personal_number_seq; Type: SEQUENCE; Schema: schema_hotel; Owner:
postgres
--

ALTER TABLE schema_hotel.employee ALTER COLUMN personal_number ADD GENERATED ALWAYS AS
IDENTITY (
    SEQUENCE NAME schema_hotel."Employee_personal_number_seq"
    START WITH 3000
    INCREMENT BY 1
    MINVALUE 3000
    MAXVALUE 9000
    CACHE 1
);


--
-- TOC entry 215 (class 1259 OID 16414)
-- Name: hotel; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.hotel (
    id_hotel integer NOT NULL,
    city text NOT NULL,
    name text NOT NULL,
    street character varying(30) NOT NULL,
    count_rooms integer NOT NULL,
    num_of_building smallint NOT NULL
);


ALTER TABLE schema_hotel.hotel OWNER TO postgres;

--
-- TOC entry 214 (class 1259 OID 16413)
-- Name: Hotel_id_hotel_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.hotel ALTER COLUMN id_hotel ADD GENERATED ALWAYS AS IDENTITY (
    SEQUENCE NAME schema_hotel."Hotel_id_hotel_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);


--
-- TOC entry 222 (class 1259 OID 16461)
-- Name: order; Type: TABLE; Schema: schema_hotel; Owner: postgres
```

```
--

CREATE TABLE schema_hotel."order" (
    id_order integer NOT NULL,
    client integer NOT NULL,
    employee integer NOT NULL,
    room integer NOT NULL,
    arrival_date date NOT NULL,
    departure_date date NOT NULL,
    payment_type text NOT NULL,
    status_order text NOT NULL,
    booking_date date NOT NULL
);


ALTER TABLE schema_hotel."order" OWNER TO postgres;

--
-- TOC entry 221 (class 1259 OID 16460)
-- Name: Order_id_order_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel."order" ALTER COLUMN id_order ADD GENERATED ALWAYS AS IDENTITY (
    SEQUENCE NAME schema_hotel."Order_id_order_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);


--
-- TOC entry 228 (class 1259 OID 16503)
-- Name: price; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.price (
    id_price integer NOT NULL,
    room_type integer NOT NULL,
    date_begin date NOT NULL,
    date_end date NOT NULL,
    sum money NOT NULL
);


ALTER TABLE schema_hotel.price OWNER TO postgres;

--
-- TOC entry 227 (class 1259 OID 16502)
-- Name: Price_id_price_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
```

```
--

ALTER TABLE schema_hotel.price ALTER COLUMN id_price ADD GENERATED ALWAYS AS IDENTITY (
    SEQUENCE NAME schema_hotel."Price_id_price_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);


--
-- TOC entry 218 (class 1259 OID 16432)
-- Name: room; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.room (
    id_room integer NOT NULL,
    num integer NOT NULL,
    hotel integer NOT NULL,
    type integer NOT NULL
);


ALTER TABLE schema_hotel.room OWNER TO postgres;

--
-- TOC entry 217 (class 1259 OID 16431)
-- Name: Room_id_room_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.room ALTER COLUMN id_room ADD GENERATED ALWAYS AS IDENTITY (
    SEQUENCE NAME schema_hotel."Room_id_room_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);


--
-- TOC entry 226 (class 1259 OID 16492)
-- Name: sale; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.sale (
    id_sale integer NOT NULL,
    room_type integer NOT NULL,
    date_begin date NOT NULL,
```

```
    date_end date NOT NULL,
    sale_size numeric NOT NULL
);


ALTER TABLE schema_hotel.sale OWNER TO postgres;

--
-- TOC entry 225 (class 1259 OID 16491)
-- Name: Sale_id_sale_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.sale ALTER COLUMN id_sale ADD GENERATED ALWAYS AS IDENTITY (
    SEQUENCE NAME schema_hotel."Sale_id_sale_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);


--
-- TOC entry 224 (class 1259 OID 16484)
-- Name: type_room; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.type_room (
    id_type integer NOT NULL,
    description text NOT NULL,
    amenities text NOT NULL,
    name_type character varying(50) NOT NULL
);


ALTER TABLE schema_hotel.type_room OWNER TO postgres;

--
-- TOC entry 223 (class 1259 OID 16483)
-- Name: Type_room_id_type_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.type_room ALTER COLUMN id_type ADD GENERATED ALWAYS AS IDENTITY (
    SEQUENCE NAME schema_hotel."Type_room_id_type_seq"
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);
```

```
--
-- TOC entry 216 (class 1259 OID 16421)
-- Name: discount; Type: TABLE; Schema: schema_hotel; Owner: postgres
--

CREATE TABLE schema_hotel.discount (
    id_discount integer NOT NULL,
    id_hotel integer NOT NULL,
    amount numeric NOT NULL,
    date_begin date NOT NULL,
    date_end date NOT NULL
);


ALTER TABLE schema_hotel.discount OWNER TO postgres;

--
-- TOC entry 229 (class 1259 OID 16538)
-- Name: discount_id_discount_seq; Type: SEQUENCE; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.discount ALTER COLUMN id_discount ADD GENERATED ALWAYS AS
IDENTITY (
    SEQUENCE NAME schema_hotel.discount_id_discount_seq
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1
);



--
-- TOC entry 3671 (class 0 OID 16443)
-- Dependencies: 220
-- Data for Name: cleaning; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.cleaning (id_cleaning, date_clean, status_clean, id_employee, id_room)
FROM stdin;
1   2023-03-01  clean   3005    1
2   2023-03-01  clean   3005    2
3   2023-03-01  clean   3005    3
4   2023-03-01  clean   3005    4
5   2023-03-02  clean   3004    5
6   2023-03-02  clean   3004    5
7   2023-03-02  no clean    3004    6
8   2023-03-02  no clean    3004    7
9   2023-03-02  clean   3004    8
10  2023-03-09  clean   3003    9
11  2023-03-09  clean   3003    10
```

```
12  2023-03-09  clean   3003    11
13  2023-03-09  clean   3003    12
\.


--
-- TOC entry 3662 (class 0 OID 16398)
-- Dependencies: 211
-- Data for Name: client; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.client (id_client, address, passport_datas, full_name, email) FROM
stdin;
1   Lensovata 23    HB3121108   Starovoytova Elizaveta Anatolyovna
lstarovoytova17@gmail.com
2   Piskarevski 45  HB3121109   Starovoytova Ekaterina Anatolyovna
katyastarovoytova03@gmail.com
3   Karvata 9   HB3105213   Peskun Maria Vadimovna  mariapeskun@gmail.com
4   Pobedy 24   HB3111234   Yaroshenko Maria Genadievna myarosh2004@gmail.com
\.


--
-- TOC entry 3667 (class 0 OID 16421)
-- Dependencies: 216
-- Data for Name: discount; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.discount (id_discount, id_hotel, amount, date_begin, date_end) FROM
stdin;
3   1   0.05    2023-03-01  2023-03-30
1   2   0.1 2023-03-01  2023-03-30
\.


--
-- TOC entry 3664 (class 0 OID 16406)
-- Dependencies: 213
-- Data for Name: employee; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.employee (personal_number, full_name, hotel, "position") FROM stdin;
3000    Karpova Elena Nokolaevna    1   Administrator
3001    Isachenko Daria Alexandrovna    2   Administrator
3002    Markevich Angelina Sergeevna    3   Administrator
3003    Markevich Ekaterina Anatolyovna 1   Cleaneress
3004    Danchenko Margo Alexandrovna    2   Cleaneress
3005    Alhimovich Anastasiya Olegovna  3   Cleaneress
3006    Alhimovich Maria Olegovna   3   Cleaneress
\.
```

```
--
-- TOC entry 3666 (class 0 OID 16414)
-- Dependencies: 215
-- Data for Name: hotel; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.hotel (id_hotel, city, name, street, count_rooms, num_of_building) FROM
stdin;
1   Spb Rixos SPB   Nevski prospect 59  132
2   Minsk   Rixos MINSK Kupaly street   36  12
3   Ekb Rixos EKB   Klasnaya street 29  53
\.


--
-- TOC entry 3673 (class 0 OID 16461)
-- Dependencies: 222
-- Data for Name: order; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel."order" (id_order, client, employee, room, arrival_date, departure_date,
payment_type, status_order, booking_date) FROM stdin;
1   1   3000    10  2023-04-14  2023-04-16  visa    approved    2023-03-20
3   2   3005    6   2023-04-14  2023-04-16  mir pay approved    2023-03-29
4   3   3000    6   2023-04-13  2023-04-14  mastercard  approved    2023-03-24
\.


--
-- TOC entry 3679 (class 0 OID 16503)
-- Dependencies: 228
-- Data for Name: price; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.price (id_price, room_type, date_begin, date_end, sum) FROM stdin;
1   1   2023-03-01  2024-03-01  $50.00
2   2   2023-03-01  2024-03-01  $150.00
\.


--
-- TOC entry 3669 (class 0 OID 16432)
-- Dependencies: 218
-- Data for Name: room; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.room (id_room, num, hotel, type) FROM stdin;
1   10  3   2
2   20  3   2
3   30  3   1
4   40  3   1
```

```
5   10  2   2
6   20  2   2
7   30  2   1
8   40  2   1
9   40  1   1
10  30  1   1
11  20  1   2
12  10  1   2
\.


--
-- TOC entry 3677 (class 0 OID 16492)
-- Dependencies: 226
-- Data for Name: sale; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.sale (id_sale, room_type, date_begin, date_end, sale_size) FROM stdin;
1   2   2023-03-01  2023-03-08  0.2
\.


--
-- TOC entry 3675 (class 0 OID 16484)
-- Dependencies: 224
-- Data for Name: type_room; Type: TABLE DATA; Schema: schema_hotel; Owner: postgres
--

COPY schema_hotel.type_room (id_type, description, amenities, name_type) FROM stdin;
1   This room is suitable for a family  Refrigerator, baby cot  standart
2   This room is more comfortable, than standart room   Mini-bar, balcony with view, evrth
you need comfort
\.


--
-- TOC entry 3697 (class 0 OID 0)
-- Dependencies: 219
-- Name: Cleaning_id_cleaning_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner:
postgres
--

SELECT pg_catalog.setval('schema_hotel."Cleaning_id_cleaning_seq"', 13, true);


--
-- TOC entry 3698 (class 0 OID 0)
-- Dependencies: 210
-- Name: Client_id_client_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner: postgres
--
```

```
SELECT pg_catalog.setval('schema_hotel."Client_id_client_seq"', 4, true);


--
-- TOC entry 3699 (class 0 OID 0)
-- Dependencies: 212
-- Name: Employee_personal_number_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner:
postgres
--

SELECT pg_catalog.setval('schema_hotel."Employee_personal_number_seq"', 3006, true);


--
-- TOC entry 3700 (class 0 OID 0)
-- Dependencies: 214
-- Name: Hotel_id_hotel_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner: postgres
--

SELECT pg_catalog.setval('schema_hotel."Hotel_id_hotel_seq"', 3, true);


--
-- TOC entry 3701 (class 0 OID 0)
-- Dependencies: 221
-- Name: Order_id_order_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner: postgres
--

SELECT pg_catalog.setval('schema_hotel."Order_id_order_seq"', 4, true);


--
-- TOC entry 3702 (class 0 OID 0)
-- Dependencies: 227
-- Name: Price_id_price_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner: postgres
--

SELECT pg_catalog.setval('schema_hotel."Price_id_price_seq"', 2, true);


--
-- TOC entry 3703 (class 0 OID 0)
-- Dependencies: 217
-- Name: Room_id_room_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner: postgres
--

SELECT pg_catalog.setval('schema_hotel."Room_id_room_seq"', 12, true);


--
-- TOC entry 3704 (class 0 OID 0)
-- Dependencies: 225
```

```
-- Name: Sale_id_sale_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner: postgres
--

SELECT pg_catalog.setval('schema_hotel."Sale_id_sale_seq"', 1, true);


--
-- TOC entry 3705 (class 0 OID 0)
-- Dependencies: 223
-- Name: Type_room_id_type_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner: postgres
--

SELECT pg_catalog.setval('schema_hotel."Type_room_id_type_seq"', 2, true);


--
-- TOC entry 3706 (class 0 OID 0)
-- Dependencies: 229
-- Name: discount_id_discount_seq; Type: SEQUENCE SET; Schema: schema_hotel; Owner:
postgres
--

SELECT pg_catalog.setval('schema_hotel.discount_id_discount_seq', 3, true);


--
-- TOC entry 3503 (class 2606 OID 16449)
-- Name: cleaning Cleaning_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.cleaning
    ADD CONSTRAINT "Cleaning_pkey" PRIMARY KEY (id_cleaning);


--
-- TOC entry 3493 (class 2606 OID 16404)
-- Name: client Client_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.client
    ADD CONSTRAINT "Client_pkey" PRIMARY KEY (id_client);


--
-- TOC entry 3499 (class 2606 OID 16425)
-- Name: discount Discount_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.discount
    ADD CONSTRAINT "Discount_pkey" PRIMARY KEY (id_discount);
```

```
--
-- TOC entry 3495 (class 2606 OID 16412)
-- Name: employee Employee_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.employee
    ADD CONSTRAINT "Employee_pkey" PRIMARY KEY (personal_number);


--
-- TOC entry 3497 (class 2606 OID 16420)
-- Name: hotel Hotel_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.hotel
    ADD CONSTRAINT "Hotel_pkey" PRIMARY KEY (id_hotel);


--
-- TOC entry 3505 (class 2606 OID 16467)
-- Name: order Order_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel."order"
    ADD CONSTRAINT "Order_pkey" PRIMARY KEY (id_order);


--
-- TOC entry 3511 (class 2606 OID 16507)
-- Name: price Price_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.price
    ADD CONSTRAINT "Price_pkey" PRIMARY KEY (id_price);


--
-- TOC entry 3501 (class 2606 OID 16436)
-- Name: room Room_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.room
    ADD CONSTRAINT "Room_pkey" PRIMARY KEY (id_room);


--
-- TOC entry 3509 (class 2606 OID 16496)
-- Name: sale Sale_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.sale
    ADD CONSTRAINT "Sale_pkey" PRIMARY KEY (id_sale);
```

```
--
-- TOC entry 3507 (class 2606 OID 16490)
-- Name: type_room Type_room_pkey; Type: CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.type_room
    ADD CONSTRAINT "Type_room_pkey" PRIMARY KEY (id_type);


--
-- TOC entry 3482 (class 2606 OID 16529)
-- Name: order chk_arrivaldate; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner:
postgres
--

ALTER TABLE schema_hotel."order"
    ADD CONSTRAINT chk_arrivaldate CHECK ((arrival_date < departure_date)) NOT VALID;


--
-- TOC entry 3483 (class 2606 OID 16531)
-- Name: order chk_bookingdate; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner:
postgres
--

ALTER TABLE schema_hotel."order"
    ADD CONSTRAINT chk_bookingdate CHECK ((booking_date <= arrival_date)) NOT VALID;


--
-- TOC entry 3490 (class 2606 OID 16533)
-- Name: price chk_datebegin; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner:
postgres
--

ALTER TABLE schema_hotel.price
    ADD CONSTRAINT chk_datebegin CHECK ((date_begin < date_end)) NOT VALID;


--
-- TOC entry 3487 (class 2606 OID 16535)
-- Name: sale chk_datebegin; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.sale
    ADD CONSTRAINT chk_datebegin CHECK ((date_begin < date_end)) NOT VALID;


--
-- TOC entry 3491 (class 2606 OID 16534)
```

```
-- Name: price chk_dateend; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.price
    ADD CONSTRAINT chk_dateend CHECK ((date_end > date_begin)) NOT VALID;


--
-- TOC entry 3488 (class 2606 OID 16536)
-- Name: sale chk_dateend; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.sale
    ADD CONSTRAINT chk_dateend CHECK ((date_end > date_begin)) NOT VALID;


--
-- TOC entry 3484 (class 2606 OID 16530)
-- Name: order chk_departuredate; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner:
postgres
--

ALTER TABLE schema_hotel."order"
    ADD CONSTRAINT chk_departuredate CHECK ((departure_date > arrival_date)) NOT VALID;


--
-- TOC entry 3479 (class 2606 OID 16526)
-- Name: discount chk_discount_datebegin; Type: CHECK CONSTRAINT; Schema: schema_hotel;
Owner: postgres
--

ALTER TABLE schema_hotel.discount
    ADD CONSTRAINT chk_discount_datebegin CHECK ((date_begin < date_end)) NOT VALID;


--
-- TOC entry 3480 (class 2606 OID 16527)
-- Name: discount chk_discount_dateend; Type: CHECK CONSTRAINT; Schema: schema_hotel;
Owner: postgres
--

ALTER TABLE schema_hotel.discount
    ADD CONSTRAINT chk_discount_dateend CHECK ((date_end > date_begin)) NOT VALID;


--
-- TOC entry 3478 (class 2606 OID 16528)
-- Name: hotel chk_hotel_countrooms; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner:
postgres
--
```

```
ALTER TABLE schema_hotel.hotel
    ADD CONSTRAINT chk_hotel_countrooms CHECK ((count_rooms > 0)) NOT VALID;


--
-- TOC entry 3485 (class 2606 OID 16540)
-- Name: order chk_payment; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel."order"
    ADD CONSTRAINT chk_payment CHECK ((payment_type = ANY (ARRAY['visa'::text,
'mastercard'::text, 'mir pay'::text, 'apple pay'::text]))) NOT VALID;


--
-- TOC entry 3489 (class 2606 OID 16563)
-- Name: sale chk_percent; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.sale
    ADD CONSTRAINT chk_percent CHECK ((sale_size > (0)::numeric)) NOT VALID;


--
-- TOC entry 3481 (class 2606 OID 16572)
-- Name: cleaning chk_statusclean; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner:
postgres
--

ALTER TABLE schema_hotel.cleaning
    ADD CONSTRAINT chk_statusclean CHECK ((status_clean = ANY (ARRAY['clean'::text, 'no
clean'::text]))) NOT VALID;


--
-- TOC entry 3486 (class 2606 OID 16573)
-- Name: order chk_statusorder; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner:
postgres
--

ALTER TABLE schema_hotel."order"
    ADD CONSTRAINT chk_statusorder CHECK ((status_order = ANY (ARRAY['approved'::text,
'not approved'::text, 'settlement'::text, 'left'::text, 'cancelled'::text,
'lateness'::text]))) NOT VALID;


--
-- TOC entry 3477 (class 2606 OID 16549)
-- Name: employee position; Type: CHECK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE schema_hotel.employee
```

```
    ADD CONSTRAINT "position" CHECK ((("position")::text = ANY
((ARRAY['Administrator'::character varying, 'Cleaneress'::character varying,
'Director'::character varying])::text[]))) NOT VALID;


--
-- TOC entry 3517 (class 2606 OID 16468)
-- Name: order fk_client; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel."order"
    ADD CONSTRAINT fk_client FOREIGN KEY (client) REFERENCES
schema_hotel.client(id_client);


--
-- TOC entry 3518 (class 2606 OID 16473)
-- Name: order fk_employee; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel."order"
    ADD CONSTRAINT fk_employee FOREIGN KEY (employee) REFERENCES
schema_hotel.employee(personal_number);


--
-- TOC entry 3513 (class 2606 OID 16437)
-- Name: room fk_hotel; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.room
    ADD CONSTRAINT fk_hotel FOREIGN KEY (hotel) REFERENCES schema_hotel.hotel(id_hotel);


--
-- TOC entry 3512 (class 2606 OID 16426)
-- Name: discount fk_id_hotel; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.discount
    ADD CONSTRAINT fk_id_hotel FOREIGN KEY (id_hotel) REFERENCES
schema_hotel.hotel(id_hotel);


--
-- TOC entry 3519 (class 2606 OID 16478)
-- Name: order fk_room; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel."order"
    ADD CONSTRAINT fk_room FOREIGN KEY (room) REFERENCES schema_hotel.room(id_room);
```

```
--
-- TOC entry 3520 (class 2606 OID 16497)
-- Name: sale fk_room_type; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.sale
    ADD CONSTRAINT fk_room_type FOREIGN KEY (room_type) REFERENCES
schema_hotel.type_room(id_type);


--
-- TOC entry 3521 (class 2606 OID 16508)
-- Name: price fk_room_type; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.price
    ADD CONSTRAINT fk_room_type FOREIGN KEY (room_type) REFERENCES
schema_hotel.type_room(id_type);


--
-- TOC entry 3514 (class 2606 OID 16517)
-- Name: room fk_type; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.room
    ADD CONSTRAINT fk_type FOREIGN KEY (type) REFERENCES schema_hotel.type_room(id_type)
NOT VALID;


--
-- TOC entry 3516 (class 2606 OID 16455)
-- Name: cleaning id_employee; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.cleaning
    ADD CONSTRAINT id_employee FOREIGN KEY (id_employee) REFERENCES
schema_hotel.employee(personal_number);


--
-- TOC entry 3515 (class 2606 OID 16450)
-- Name: cleaning id_room; Type: FK CONSTRAINT; Schema: schema_hotel; Owner: postgres
--

ALTER TABLE ONLY schema_hotel.cleaning
    ADD CONSTRAINT id_room FOREIGN KEY (id_room) REFERENCES schema_hotel.room(id_room);


--
-- TOC entry 3686 (class 0 OID 0)
-- Dependencies: 6
```

```
-- Name: SCHEMA schema_hotel; Type: ACL; Schema: -; Owner: postgres
--

REVOKE ALL ON SCHEMA schema_hotel FROM postgres;
GRANT ALL ON SCHEMA schema_hotel TO postgres WITH GRANT OPTION;


--
-- TOC entry 3687 (class 0 OID 0)
-- Dependencies: 220
-- Name: TABLE cleaning; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.cleaning FROM postgres;
GRANT ALL ON TABLE schema_hotel.cleaning TO postgres WITH GRANT OPTION;


--
-- TOC entry 3688 (class 0 OID 0)
-- Dependencies: 211
-- Name: TABLE client; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.client FROM postgres;
GRANT ALL ON TABLE schema_hotel.client TO postgres WITH GRANT OPTION;


--
-- TOC entry 3689 (class 0 OID 0)
-- Dependencies: 213
-- Name: TABLE employee; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.employee FROM postgres;
GRANT ALL ON TABLE schema_hotel.employee TO postgres WITH GRANT OPTION;


--
-- TOC entry 3690 (class 0 OID 0)
-- Dependencies: 215
-- Name: TABLE hotel; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.hotel FROM postgres;
GRANT ALL ON TABLE schema_hotel.hotel TO postgres WITH GRANT OPTION;


--
-- TOC entry 3691 (class 0 OID 0)
-- Dependencies: 222
-- Name: TABLE "order"; Type: ACL; Schema: schema_hotel; Owner: postgres
--
```

```
REVOKE ALL ON TABLE schema_hotel."order" FROM postgres;
GRANT ALL ON TABLE schema_hotel."order" TO postgres WITH GRANT OPTION;


--
-- TOC entry 3692 (class 0 OID 0)
-- Dependencies: 228
-- Name: TABLE price; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.price FROM postgres;
GRANT ALL ON TABLE schema_hotel.price TO postgres WITH GRANT OPTION;


--
-- TOC entry 3693 (class 0 OID 0)
-- Dependencies: 218
-- Name: TABLE room; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.room FROM postgres;
GRANT ALL ON TABLE schema_hotel.room TO postgres WITH GRANT OPTION;


--
-- TOC entry 3694 (class 0 OID 0)
-- Dependencies: 226
-- Name: TABLE sale; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.sale FROM postgres;
GRANT ALL ON TABLE schema_hotel.sale TO postgres WITH GRANT OPTION;


--
-- TOC entry 3695 (class 0 OID 0)
-- Dependencies: 224
-- Name: TABLE type_room; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.type_room FROM postgres;
GRANT ALL ON TABLE schema_hotel.type_room TO postgres WITH GRANT OPTION;


--
-- TOC entry 3696 (class 0 OID 0)
-- Dependencies: 216
-- Name: TABLE discount; Type: ACL; Schema: schema_hotel; Owner: postgres
--

REVOKE ALL ON TABLE schema_hotel.discount FROM postgres;
```

```
GRANT ALL ON TABLE schema_hotel.discount TO postgres WITH GRANT OPTION;


--
-- TOC entry 2071 (class 826 OID 16396)
-- Name: DEFAULT PRIVILEGES FOR TABLES; Type: DEFAULT ACL; Schema: schema_hotel; Owner:
postgres
--

ALTER DEFAULT PRIVILEGES FOR ROLE postgres IN SCHEMA schema_hotel GRANT ALL ON TABLES  TO
postgres WITH GRANT OPTION;


-- Completed on 2023-03-23 14:39:26 MSK

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

Выводы:

В данной лабораторной работе при выполнении варианта 1 я овладела практическими навыками создания таблиц базы данных PostgreSQL 1X, заполнения их рабочими данными, резервного копирования и восстановления БД.