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**»

Автор: Скороходова Елена

Факультет: ИКТ

Группа: K32392

Преподаватель: Говорова М.М.

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

Оборудование: компьютерный класс.

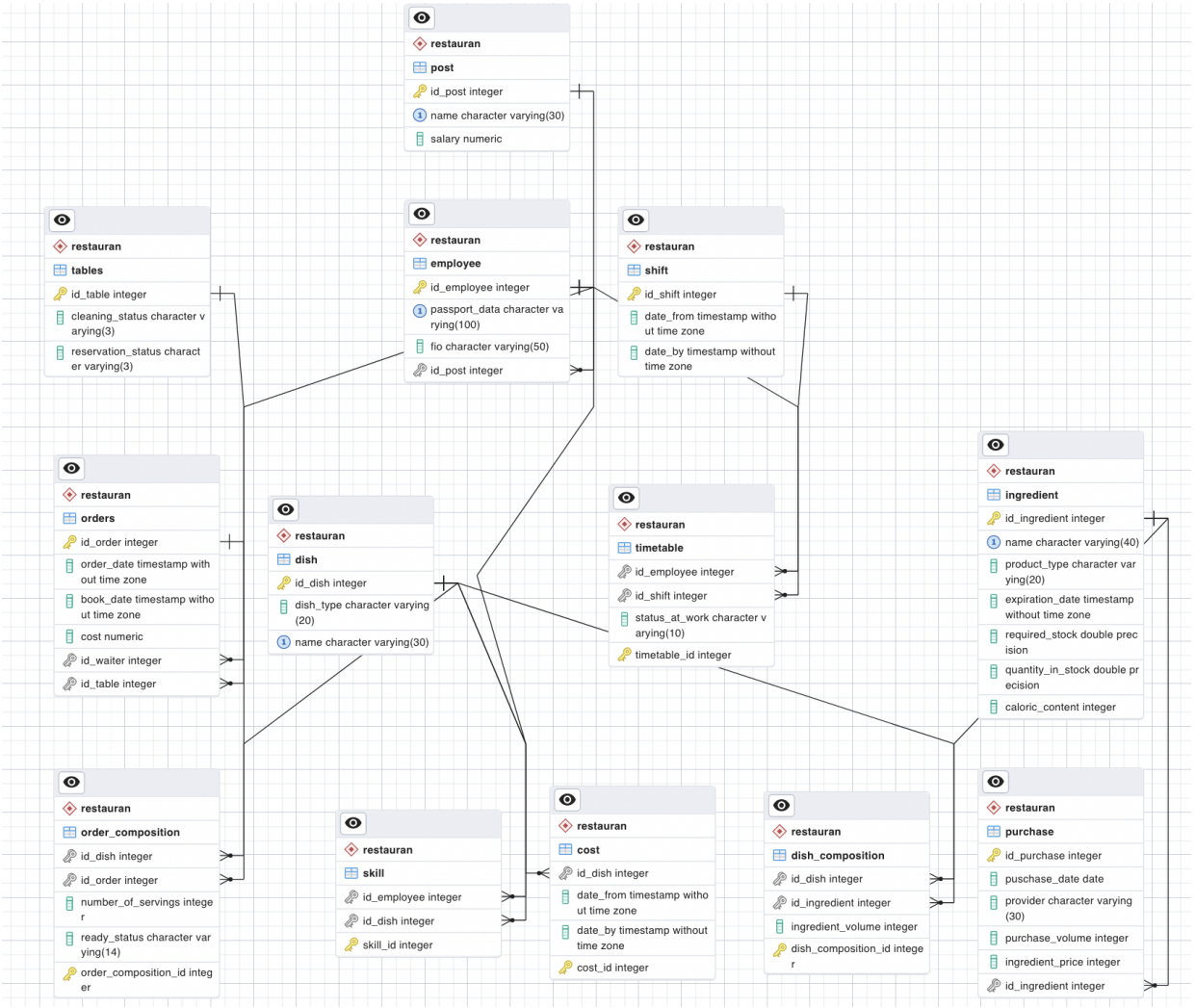
Программное обеспечение: СУБД PostgreSQL 1X, pgAdmin 4.

Практическое задание:

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

Выполнение:

1. **Наименование:** RestaurantBase
2. **Создание базы данных:**
   Создаем новую базу данных, далее при помощи написания скрипта в Query Tool создаем таблицы вместе с ограничениями CHECK, PRIMARY KEY, FOREIGN KEY.
3. **Заполнение таблиц рабочими данными:**
   В том же Query Tool при помощи INSERT заполняем данными таблицы.
4. **Логическая схема базы данных:**



5. Создание резервной копии базы данных:

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

```
CREATE TABLE restauran.tables (
    id_table integer NOT NULL,
    cleaning_status character varying(3) NOT NULL,
    reservation_status character varying(3) NOT NULL,
    CONSTRAINT tables_cleaning_status_check CHECK (((cleaning_status)::text = ANY (ARRAY[('Да'::character varying)::text, ('Нет'::character varying)::text]))),
    CONSTRAINT tables_reservation_status_check CHECK (((reservation_status)::text = ANY (ARRAY[('Да'::character varying)::text, ('Нет'::character varying)::text])))
);
```

```
ALTER TABLE restauran.tables OWNER TO postgres;


--
-- TOC entry 234 (class 1259 OID 25681)
-- Name: tables_id_table_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres
--

CREATE SEQUENCE restauran.tables_id_table_seq
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;


ALTER TABLE restauran.tables_id_table_seq OWNER TO postgres;


--
-- TOC entry 3761 (class 0 OID 0)
-- Dependencies: 234
-- Name: tables_id_table_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres
--

ALTER SEQUENCE restauran.tables_id_table_seq OWNED BY restauran.tables.id_table;



--
-- TOC entry 235 (class 1259 OID 25682)
-- Name: timetable; Type: TABLE; Schema: restauran; Owner: postgres
--
```

```
CREATE TABLE restauran.timetable (
    id_employee integer NOT NULL,
    id_shift integer NOT NULL,
    status_at_work character varying(10) NOT NULL,
    timetable_id integer NOT NULL,
    CONSTRAINT timetable_status_at_work_check CHECK (((status_at_work)::text = ANY (ARRAY[('По графику'::character varying)::text, ('Доп'::character varying)::text, ('Больн'::character varying)::text, ('Оттул'::character varying)::text])))
);


ALTER TABLE restauran.timetable OWNER TO postgres;

--
-- TOC entry 236 (class 1259 OID 25785)
-- Name: timetable_timetable_id_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres
--

CREATE SEQUENCE restauran.timetable_timetable_id_seq
    AS integer
    START WITH 1
    INCREMENT BY 1
    NO MINVALUE
    NO MAXVALUE
    CACHE 1;


ALTER TABLE restauran.timetable_timetable_id_seq OWNER TO postgres;

--
-- TOC entry 3762 (class 0 OID 0)
```

-- Dependencies: 236

-- Name: timetable_timetable_id_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres

--

ALTER SEQUENCE restauran.timetable_timetable_id_seq OWNED BY restauran.timetable.timetable_id;

--

-- TOC entry 3500 (class 2604 OID 25821)

-- Name: cost cost_id; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.cost ALTER COLUMN cost_id SET DEFAULT nextval('restauran.cost_cost_id_seq'::regclass);

--

-- TOC entry 3501 (class 2604 OID 25686)

-- Name: dish id_dish; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.dish ALTER COLUMN id_dish SET DEFAULT nextval('restauran.dish_id_dish_seq'::regclass);

--

-- TOC entry 3502 (class 2604 OID 25796)

-- Name: dish_composition dish_composition_id; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.dish_composition ALTER COLUMN dish_composition_id SET DEFAULT nextval('restauran.dish_composition_dish_composition_id_seq'::regclass);

--

-- TOC entry 3503 (class 2604 OID 25687)

-- Name: employee id_employee; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.employee ALTER COLUMN id_employee SET DEFAULT nextval('restauran.employee_id_employee_seq'::regclass);

--

-- TOC entry 3504 (class 2604 OID 25688)

-- Name: ingredient id_ingredient; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.ingredient ALTER COLUMN id_ingredient SET DEFAULT nextval('restauran.ingredient_id_ingredient_seq'::regclass);

--

-- TOC entry 3505 (class 2604 OID 25812)

-- Name: order_composition order_composition_id; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.order_composition ALTER COLUMN order_composition_id SET DEFAULT nextval('restauran.order_composition_order_composition_id_seq'::regclass);

--

-- TOC entry 3506 (class 2604 OID 25689)

-- Name: orders id_order; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.orders ALTER COLUMN id_order SET DEFAULT nextval('restauran.orders_id_order_seq'::regclass);

--

-- TOC entry 3507 (class 2604 OID 25690)

-- Name: post id_post; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.post ALTER COLUMN id_post SET DEFAULT nextval('restauran.post_id_post_seq'::regclass);

--

-- TOC entry 3508 (class 2604 OID 25691)

-- Name: purchase id_purchase; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.purchase ALTER COLUMN id_purchase SET DEFAULT nextval('restauran.purchase_id_purchase_seq'::regclass);

--

-- TOC entry 3509 (class 2604 OID 25692)

-- Name: shift id_shift; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.shift ALTER COLUMN id_shift SET DEFAULT nextval('restauran.shift_id_shift_seq'::regclass);

--

-- TOC entry 3510 (class 2604 OID 25804)

-- Name: skill skill_id; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.skill ALTER COLUMN skill_id SET DEFAULT nextval('restauran.skill_skill_id_seq'::regclass);

--

-- TOC entry 3511 (class 2604 OID 25693)

-- Name: tables id_table; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.tables ALTER COLUMN id_table SET DEFAULT nextval('restauran.tables_id_table_seq'::regclass);

--

-- TOC entry 3512 (class 2604 OID 25786)

-- Name: timetable timetable_id; Type: DEFAULT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.timetable ALTER COLUMN timetable_id SET DEFAULT nextval('restauran.timetable_timetable_id_seq'::regclass);

--

-- TOC entry 3717 (class 0 OID 25619)

-- Dependencies: 215

-- Data for Name: cost; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.cost (id_dish, date_from, date_by, cost_id) VALUES (1, '2023-03-07 12:00:00', '2023-03-07 12:30:00', 1);

INSERT INTO restauran.cost (id_dish, date_from, date_by, cost_id) VALUES (2, '2023-03-08 15:28:00', '2023-03-08 15:45:00', 2);

INSERT INTO restauran.cost (id_dish, date_from, date_by, cost_id) VALUES (3, '2023-03-08 15:40:00', '2023-03-08 16:00:00', 3);

--

-- TOC entry 3718 (class 0 OID 25624)

-- Dependencies: 216

-- Data for Name: dish; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.dish (id_dish, dish_type, name) VALUES (2, 'горячее', 'Мясо по-французски');

INSERT INTO restauran.dish (id_dish, dish_type, name) VALUES (3, 'дессерт', 'Торт "Наполеон"');

INSERT INTO restauran.dish (id_dish, dish_type, name) VALUES (1, 'салат', 'Цезарь');

--

-- TOC entry 3719 (class 0 OID 25628)

-- Dependencies: 217

-- Data for Name: dish_composition; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.dish_composition (id_dish, id_ingredient, ingredient_volume, dish_composition_id) VALUES (1, 3, 2, 1);

INSERT INTO restauran.dish_composition (id_dish, id_ingredient, ingredient_volume, dish_composition_id) VALUES (2, 1, 1, 2);

INSERT INTO restauran.dish_composition (id_dish, id_ingredient, ingredient_volume, dish_composition_id) VALUES (2, 2, 1, 3);

--

-- TOC entry 3721 (class 0 OID 25633)

-- Dependencies: 219

-- Data for Name: employee; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.employee (id_employee, passport_data, fio, id_post) VALUES (1, '4018 998445', 'Иванов Иван Иванович', 3);

INSERT INTO restauran.employee (id_employee, passport_data, fio, id_post) VALUES (2, '5334 584036', 'Лопаткина Инга Юрьевна', 1);

INSERT INTO restauran.employee (id_employee, passport_data, fio, id_post) VALUES (3, '3804 638490', 'Петров Юрим Максимович', 3);

--

-- TOC entry 3723 (class 0 OID 25637)

-- Dependencies: 221

-- Data for Name: ingredient; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.ingredient (id_ingredient, name, product_type, expiration_date, required_stock, quantity_in_stock, caloric_content) VALUES (2, 'Говядина', 'Мясо', '2023-03-21 17:45:00', 8, 7, 187);

INSERT INTO restauran.ingredient (id_ingredient, name, product_type, expiration_date, required_stock, quantity_in_stock, caloric_content) VALUES (1, 'Лук', 'Овощи', '2023-03-04 12:00:00', 5, 3.5, 40);

INSERT INTO restauran.ingredient (id_ingredient, name, product_type, expiration_date, required_stock, quantity_in_stock, caloric_content) VALUES (3, 'Яйцо куриное', 'Яйца', '2023-03-16 10:30:00', 10, 9.2, 143);

--

-- TOC entry 3725 (class 0 OID 25643)

-- Dependencies: 223

-- Data for Name: order_composition; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.order_composition (id_dish, id_order, number_of_servings, ready_status, order_composition_id) VALUES (2, 1, 2, 'Взято в работу', 1);

INSERT INTO restauran.order_composition (id_dish, id_order, number_of_servings, ready_status, order_composition_id) VALUES (1, 2, 1, 'Готово', 2);

INSERT INTO restauran.order_composition (id_dish, id_order, number_of_servings, ready_status, order_composition_id) VALUES (3, 1, 1, 'В ожидании', 3);

--

-- TOC entry 3726 (class 0 OID 25648)

-- Dependencies: 224

-- Data for Name: orders; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.orders (id_order, order_date, book_date, cost, id_waiter, id_table) VALUES (1, '2023-03-07 18:00:00', NULL, 506.95, 1, 1);

INSERT INTO restauran.orders (id_order, order_date, book_date, cost, id_waiter, id_table) VALUES (2, '2023-03-07 18:36:00', '2023-03-07 18:00:00', 1263, 3, 3);

--

-- TOC entry 3728 (class 0 OID 25655)

-- Dependencies: 226

-- Data for Name: post; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.post (id_post, name, salary) VALUES (1, 'Повар', 60000);

INSERT INTO restauran.post (id_post, name, salary) VALUES (2, 'Шеф-повар', 100000);

INSERT INTO restauran.post (id_post, name, salary) VALUES (3, 'Официант', 45000);

--

-- TOC entry 3730 (class 0 OID 25662)

-- Dependencies: 228

-- Data for Name: purchase; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.purchase (id_purchase, puschase_date, provider, purchase_volume, ingredient_price, id_ingredient) VALUES (1, '2023-06-03', 'ООО "Помидорка"', 100, 20, NULL);

INSERT INTO restauran.purchase (id_purchase, puschase_date, provider, purchase_volume, ingredient_price, id_ingredient) VALUES (2, '2023-06-03', '"Деревенское молочко"', 50, 40, NULL);

INSERT INTO restauran.purchase (id_purchase, puschase_date, provider, purchase_volume, ingredient_price, id_ingredient) VALUES (3, '2023-07-03', 'ООО "Дары моря"', 140, 50, NULL);

--

-- TOC entry 3732 (class 0 OID 25668)

-- Dependencies: 230

-- Data for Name: shift; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.shift (id_shift, date_from, date_by) VALUES (1, '2023-03-07 09:00:00', '2023-03-07 20:00:00');

INSERT INTO restauran.shift (id_shift, date_from, date_by) VALUES (2, '2023-03-07 08:00:00', '2023-03-07 20:00:00');

INSERT INTO restauran.shift (id_shift, date_from, date_by) VALUES (3, '2023-03-08 08:00:00', '2023-03-08 20:00:00');

--

-- TOC entry 3734 (class 0 OID 25673)

-- Dependencies: 232

-- Data for Name: skill; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.skill (id_employee, id_dish, skill_id) VALUES (2, 2, 1);

INSERT INTO restauran.skill (id_employee, id_dish, skill_id) VALUES (2, 1, 2);

INSERT INTO restauran.skill (id_employee, id_dish, skill_id) VALUES (2, 3, 3);

--

-- TOC entry 3735 (class 0 OID 25676)

-- Dependencies: 233

-- Data for Name: tables; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.tables (id_table, cleaning_status, reservation_status) VALUES (1, 'Да', 'Нет');

INSERT INTO restauran.tables (id_table, cleaning_status, reservation_status) VALUES (2, 'Нет', 'Нет');

INSERT INTO restauran.tables (id_table, cleaning_status, reservation_status) VALUES (3, 'Да', 'Да');

--

-- TOC entry 3737 (class 0 OID 25682)

-- Dependencies: 235

-- Data for Name: timetable; Type: TABLE DATA; Schema: restauran; Owner: postgres

--

INSERT INTO restauran.timetable (id_employee, id_shift, status_at_work, timetable_id) VALUES (1, 3, 'По графику', 1);

INSERT INTO restauran.timetable (id_employee, id_shift, status_at_work, timetable_id) VALUES (3, 1, 'Доп', 2);

INSERT INTO restauran.timetable (id_employee, id_shift, status_at_work, timetable_id) VALUES (3, 2, 'Оттул', 3);

--

-- TOC entry 3763 (class 0 OID 0)

-- Dependencies: 240

-- Name: cost_cost_id_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.cost_cost_id_seq', 3, true);

--

-- TOC entry 3764 (class 0 OID 0)

-- Dependencies: 237

-- Name: dish_composition_dish_composition_id_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.dish_composition_dish_composition_id_seq', 3, true);

--

-- TOC entry 3765 (class 0 OID 0)

-- Dependencies: 218

-- Name: dish_id_dish_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.dish_id_dish_seq', 1, false);

--

-- TOC entry 3766 (class 0 OID 0)

-- Dependencies: 220

-- Name: employee_id_employee_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.employee_id_employee_seq', 1, false);

--

-- TOC entry 3767 (class 0 OID 0)

-- Dependencies: 222

-- Name: ingredient_id_ingredient_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.ingredient_id_ingredient_seq', 1, false);

--

-- TOC entry 3768 (class 0 OID 0)

-- Dependencies: 239

-- Name: order_composition_order_composition_id_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.order_composition_order_composition_id_seq', 3, true);

--

-- TOC entry 3769 (class 0 OID 0)

-- Dependencies: 225

-- Name: orders_id_order_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.orders_id_order_seq', 1, false);

--

-- TOC entry 3770 (class 0 OID 0)

-- Dependencies: 227

-- Name: post_id_post_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.post_id_post_seq', 1, false);

--

-- TOC entry 3771 (class 0 OID 0)

-- Dependencies: 229

-- Name: purchase_id_purchase_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

SELECT pg_catalog.setval('restauran.purchase_id_purchase_seq', 1, false);

--

-- TOC entry 3772 (class 0 OID 0)

-- Dependencies: 231

-- Name: shift_id_shift_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres

--

```
SELECT pg_catalog.setval('restauran.shift_id_shift_seq', 1, false);



--
-- TOC entry 3773 (class 0 OID 0)
-- Dependencies: 238
-- Name: skill_skill_id_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres
--

SELECT pg_catalog.setval('restauran.skill_skill_id_seq', 3, true);



--
-- TOC entry 3774 (class 0 OID 0)
-- Dependencies: 234
-- Name: tables_id_table_seq; Type: SEQUENCE SET; Schema: restauran; Owner: postgres
--

SELECT pg_catalog.setval('restauran.tables_id_table_seq', 1, false);



--
-- TOC entry 3775 (class 0 OID 0)
-- Dependencies: 236
-- Name: timetable_timetable_id_seq; Type: SEQUENCE SET; Schema: restauran; Owner:
postgres
--

SELECT pg_catalog.setval('restauran.timetable_timetable_id_seq', 3, true);



--
```

```
-- TOC entry 3529 (class 2606 OID 25823)
-- Name: cost cost_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.cost
    ADD CONSTRAINT cost_pkey PRIMARY KEY (cost_id);


--
-- TOC entry 3535 (class 2606 OID 25798)
-- Name: dish_composition dish_composition_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.dish_composition
    ADD CONSTRAINT dish_composition_pkey PRIMARY KEY (dish_composition_id);


--
-- TOC entry 3531 (class 2606 OID 25697)
-- Name: dish dish_name_unique; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.dish
    ADD CONSTRAINT dish_name_unique UNIQUE (name) INCLUDE (name);


--
-- TOC entry 3533 (class 2606 OID 25699)
-- Name: dish dish_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--
```

```
ALTER TABLE ONLY restauran.dish
    ADD CONSTRAINT dish_pkey PRIMARY KEY (id_dish);



--
-- TOC entry 3537 (class 2606 OID 25701)
-- Name: employee employee_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.employee
    ADD CONSTRAINT employee_pkey PRIMARY KEY (id_employee);



--
-- TOC entry 3541 (class 2606 OID 25703)
-- Name: ingredient ingredient_name_unique; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.ingredient
    ADD CONSTRAINT ingredient_name_unique UNIQUE (name) INCLUDE (name);



--
-- TOC entry 3543 (class 2606 OID 25705)
-- Name: ingredient ingredient_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.ingredient
    ADD CONSTRAINT ingredient_pkey PRIMARY KEY (id_ingredient);
```

```
--
-- TOC entry 3549 (class 2606 OID 25707)
-- Name: post name_unique; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.post
    ADD CONSTRAINT name_unique UNIQUE (name) INCLUDE (name);



--
-- TOC entry 3545 (class 2606 OID 25814)
-- Name: order_composition order_composition_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.order_composition
    ADD CONSTRAINT order_composition_pkey PRIMARY KEY (order_composition_id);



--
-- TOC entry 3547 (class 2606 OID 25709)
-- Name: orders orders_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.orders
    ADD CONSTRAINT orders_pkey PRIMARY KEY (id_order);



--
-- TOC entry 3539 (class 2606 OID 25711)
```

-- Name: employee passport_data_unique; Type: CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.employee

    ADD CONSTRAINT passport_data_unique UNIQUE (passport_data) INCLUDE (passport_data);

--

-- TOC entry 3551 (class 2606 OID 25713)

-- Name: post post_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.post

    ADD CONSTRAINT post_pkey PRIMARY KEY (id_post);

--

-- TOC entry 3553 (class 2606 OID 25715)

-- Name: purchase purchase_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.purchase

    ADD CONSTRAINT purchase_pkey PRIMARY KEY (id_purchase);

--

-- TOC entry 3555 (class 2606 OID 25717)

-- Name: shift shift_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres

--

```
ALTER TABLE ONLY restauran.shift
    ADD CONSTRAINT shift_pkey PRIMARY KEY (id_shift);



--
-- TOC entry 3557 (class 2606 OID 25806)
-- Name: skill skill_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.skill
    ADD CONSTRAINT skill_pkey PRIMARY KEY (skill_id);



--
-- TOC entry 3559 (class 2606 OID 25719)
-- Name: tables tables_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.tables
    ADD CONSTRAINT tables_pkey PRIMARY KEY (id_table);



--
-- TOC entry 3561 (class 2606 OID 25788)
-- Name: timetable timetable_pkey; Type: CONSTRAINT; Schema: restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.timetable
    ADD CONSTRAINT timetable_pkey PRIMARY KEY (timetable_id);



--
```

-- TOC entry 3562 (class 2606 OID 25720)

-- Name: cost cost_id_dish_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.cost

    ADD CONSTRAINT cost_id_dish_fkey FOREIGN KEY (id_dish) REFERENCES restauran.dish(id_dish);

--

-- TOC entry 3563 (class 2606 OID 25725)

-- Name: dish_composition dish_composition_id_dish_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.dish_composition

    ADD CONSTRAINT dish_composition_id_dish_fkey FOREIGN KEY (id_dish) REFERENCES restauran.dish(id_dish);

--

-- TOC entry 3564 (class 2606 OID 25730)

-- Name: dish_composition dish_composition_id_ingredient_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.dish_composition

    ADD CONSTRAINT dish_composition_id_ingredient_fkey FOREIGN KEY (id_ingredient) REFERENCES restauran.ingredient(id_ingredient);

--

-- TOC entry 3565 (class 2606 OID 25735)

-- Name: employee employee_id_post_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.employee

    ADD CONSTRAINT employee_id_post_fkey FOREIGN KEY (id_post) REFERENCES restauran.post(id_post);

--

-- TOC entry 3570 (class 2606 OID 25780)

-- Name: purchase ing; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.purchase

    ADD CONSTRAINT ing FOREIGN KEY (id_ingredient) REFERENCES restauran.ingredient(id_ingredient) NOT VALID;

--

-- TOC entry 3566 (class 2606 OID 25740)

-- Name: order_composition order_composition_id_dish_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.order_composition

    ADD CONSTRAINT order_composition_id_dish_fkey FOREIGN KEY (id_dish) REFERENCES restauran.dish(id_dish);

--

-- TOC entry 3567 (class 2606 OID 25745)

-- Name: order_composition order_composition_id_order_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.order_composition

ADD CONSTRAINT order_composition_id_order_fkey FOREIGN KEY (id_order) REFERENCES restauran.orders(id_order);

--

-- TOC entry 3568 (class 2606 OID 25750)

-- Name: orders orders_id_table_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.orders

ADD CONSTRAINT orders_id_table_fkey FOREIGN KEY (id_table) REFERENCES restauran.tables(id_table);

--

-- TOC entry 3569 (class 2606 OID 25755)

-- Name: orders orders_id_waiter_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

ALTER TABLE ONLY restauran.orders

ADD CONSTRAINT orders_id_waiter_fkey FOREIGN KEY (id_waiter) REFERENCES restauran.employee(id_employee);

--

-- TOC entry 3571 (class 2606 OID 25760)

-- Name: skill skill_id_dish_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner: postgres

--

```
ALTER TABLE ONLY restauran.skill
    ADD CONSTRAINT skill_id_dish_fkey FOREIGN KEY (id_dish) REFERENCES
restauran.dish(id_dish);



--
-- TOC entry 3572 (class 2606 OID 25765)
-- Name: skill skill_id_employee_fkey; Type: FK CONSTRAINT; Schema: restauran; Owner:
postgres
--

ALTER TABLE ONLY restauran.skill
    ADD CONSTRAINT skill_id_employee_fkey FOREIGN KEY (id_employee)
REFERENCES restauran.employee(id_employee);



--
-- TOC entry 3573 (class 2606 OID 25770)
-- Name: timetable timetable_id_employee_fkey; Type: FK CONSTRAINT; Schema:
restauran; Owner: postgres
--

ALTER TABLE ONLY restauran.timetable
    ADD CONSTRAINT timetable_id_employee_fkey FOREIGN KEY (id_employee)
REFERENCES restauran.employee(id_employee);



--
-- TOC entry 3574 (class 2606 OID 25775)
-- Name: timetable timetable_id_shift_fkey; Type: FK CONSTRAINT; Schema: restauran;
Owner: postgres
--
```

```
ALTER TABLE ONLY restauran.timetable
    ADD CONSTRAINT timetable_id_shift_fkey FOREIGN KEY (id_shift) REFERENCES restauran.shift(id_shift);
```

Вывод:

В ходе лабораторной работы я научилась создавать таблицы баз PostgreSQL 1X при помощи программного обеспечения PgAdmin4. Также я научилась пользоваться средствами вышеупомянутого инструмента для логического моделирования бд, заполнения ее данными, резервного копирования и восстановления.