**Министерство науки и высшего образования Российской Федерации** федеральное государственное автономное образовательное учреждение высшего образования

**«НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ ИТМО»**

**Отчет**

по лабораторной работе №3 «Анализ данных. Построение инфологической модели данных»

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

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# Цель работы

Овладеть практическими навыками создания таблиц базы данных PostgreSQL 1Х, 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 .*

1. Восстановить БД.

# Выполнение

* Название создаваемой БД – «Ресторан» Вариант 13.

Описание предметной области: Необходимо создать систему для обслуживания заказов клиентов в ресторане.

Сотрудники ресторана – повара и официанты.

За каждым официантом закреплены определенные столы за смену. Клиенты могут бронировать столы заранее.

Каждый повар может готовить определенный набор блюд.

Официант принимает заказ от стола и передает его на кухню. Шеф-повар распределяет блюда для приготовления между поварами. В одном заказе может быть несколько одинаковых или разных блюд.

Запас продуктов на складе не должен быть ниже заданного значения.

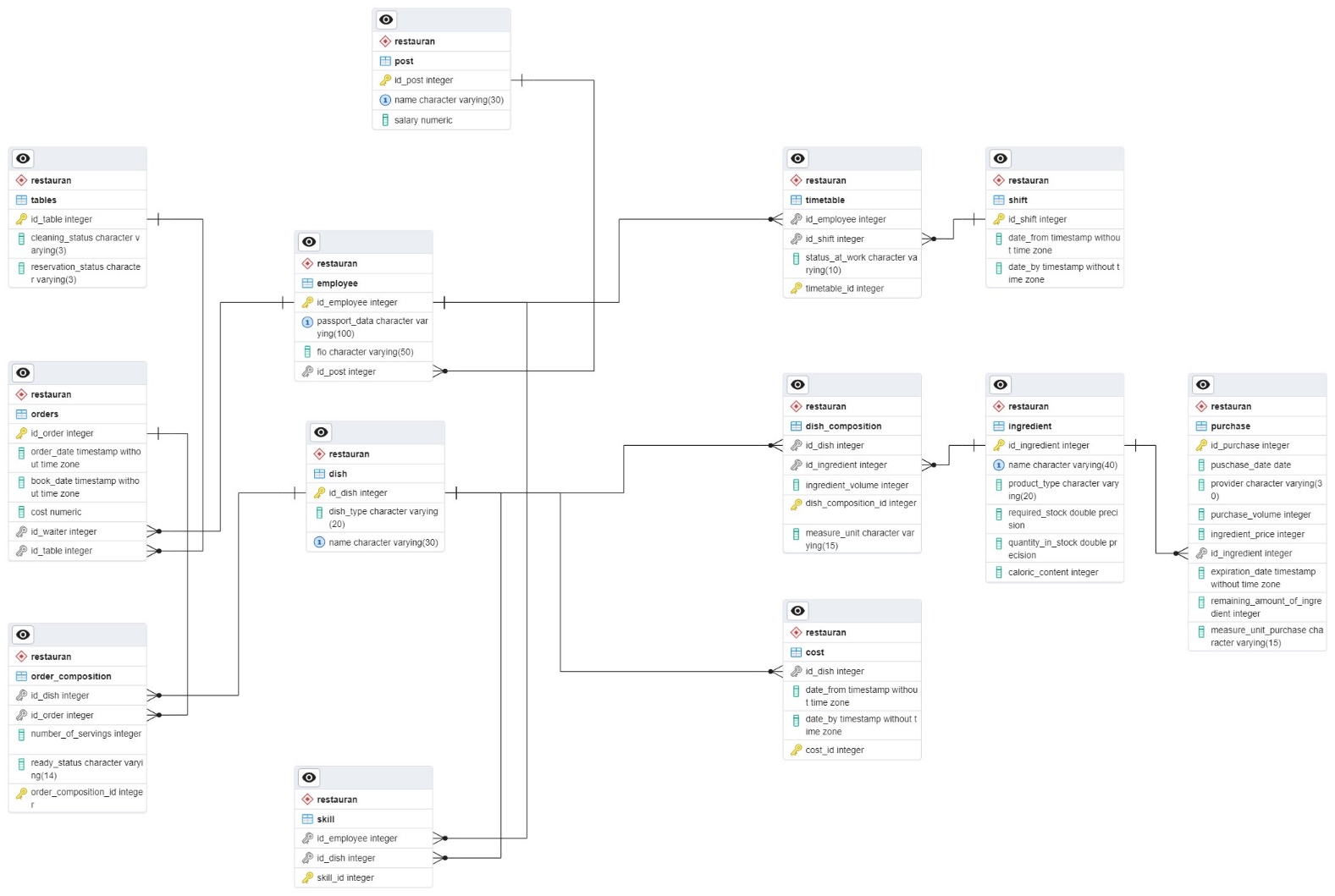
Цена заказа складывается из стоимости ингредиентов и наценки, которая составляет 40% стоимости ингредиентов.

БД должна содержать следующий минимальный набор сведений: Табельный номер сотрудника. ФИО сотрудника. Паспортные данные сотрудника. Категория сотрудника. Должность сотрудника. Оклад сотрудника. Наименование ингредиента. Код ингредиента. Дата закупки. Объем закупки. Количество продукта на складе. Необходимый запас продукта. Срок годности. Цена ингредиента. Калорийность (на 100г продукта). Поставщик. Наименование блюда. Код блюда. Объем ингредиента. Номер стола. Дата заказа. Код заказа. Количество. Название блюда. Ингредиенты, входящие в блюдо. Тип ингредиента.

Задание 1.1 (ЛР 1 БД). Выполните инфологическое моделирование базы данных системы. (Ограничения задать самостоятельно.)

Задание 1.2. Создайте логическую модель БД, используя ИЛМ (задание 1.1). Используйте необходимые средства поддержки целостности данных в СУБД.

* Схема логической модели базы данных, сгенерированная в Generate ER



**dump, содержащий скрипты работы с БД.**

**--**

**-- PostgreSQL database dump**

**--**

**-- Dumped from database version 16.1**

**-- Dumped by pg\_dump version 16.1**

**-- Started on 2023-12-12 19:08:28**

**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 5 (class 2615 OID 16578)**

**-- Name: restauran; Type: SCHEMA; Schema: -; Owner: postgres**

**--**

**CREATE SCHEMA restauran;**

**ALTER SCHEMA restauran OWNER TO postgres;**

**--**

**-- TOC entry 4999 (class 0 OID 0)**

**-- Dependencies: 5**

**-- Name: SCHEMA restauran; Type: COMMENT; Schema: -; Owner: postgres**

**--**

**COMMENT ON SCHEMA restauran IS 'standard public schema';**

**SET default\_tablespace = '';**

**SET default\_table\_access\_method = heap;**

**--**

**-- TOC entry 215 (class 1259 OID 16579)**

**-- Name: cost; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.cost (**

**id\_dish integer NOT NULL,**

**date\_from timestamp without time zone NOT NULL,**

**date\_by timestamp without time zone NOT NULL,**

**cost\_id integer NOT NULL,**

**CONSTRAINT cost\_check CHECK ((date\_from <= date\_by))**

**);**

**ALTER TABLE restauran.cost OWNER TO postgres;**

**--**

**-- TOC entry 216 (class 1259 OID 16583)**

**-- Name: cost\_cost\_id\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.cost\_cost\_id\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.cost\_cost\_id\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5000 (class 0 OID 0)**

**-- Dependencies: 216**

**-- Name: cost\_cost\_id\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.cost\_cost\_id\_seq OWNED BY restauran.cost.cost\_id;**

**--**

**-- TOC entry 217 (class 1259 OID 16584)**

**-- Name: dish; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.dish (**

**id\_dish integer NOT NULL,**

**dish\_type character varying(20) NOT NULL,**

**name character varying(30) NOT NULL,**

**CONSTRAINT dish\_dish\_type\_check CHECK (((dish\_type)::text ~ '^[А-Яа-я]+$'::text))**

**);**

**ALTER TABLE restauran.dish OWNER TO postgres;**

**--**

**-- TOC entry 218 (class 1259 OID 16588)**

**-- Name: dish\_composition; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.dish\_composition (**

**id\_dish integer NOT NULL,**

**id\_ingredient integer NOT NULL,**

**ingredient\_volume integer NOT NULL,**

**dish\_composition\_id integer NOT NULL,**

**measure\_unit character varying(15) NOT NULL,**

**CONSTRAINT check\_measure CHECK (((measure\_unit)::text = ANY (ARRAY[('мл'::character varying)::text, ('гр'::character varying)::text, ('кг'::character varying)::text, ('шт'::character varying)::text]))),**

**CONSTRAINT dish\_composition\_ingredient\_volume\_check CHECK ((ingredient\_volume > 0))**

**);**

**ALTER TABLE restauran.dish\_composition OWNER TO postgres;**

**--**

**-- TOC entry 219 (class 1259 OID 16592)**

**-- Name: dish\_composition\_dish\_composition\_id\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.dish\_composition\_dish\_composition\_id\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.dish\_composition\_dish\_composition\_id\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5001 (class 0 OID 0)**

**-- Dependencies: 219**

**-- Name: dish\_composition\_dish\_composition\_id\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.dish\_composition\_dish\_composition\_id\_seq OWNED BY restauran.dish\_composition.dish\_composition\_id;**

**--**

**-- TOC entry 220 (class 1259 OID 16593)**

**-- Name: dish\_id\_dish\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.dish\_id\_dish\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.dish\_id\_dish\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5002 (class 0 OID 0)**

**-- Dependencies: 220**

**-- Name: dish\_id\_dish\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.dish\_id\_dish\_seq OWNED BY restauran.dish.id\_dish;**

**--**

**-- TOC entry 221 (class 1259 OID 16594)**

**-- Name: employee; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.employee (**

**id\_employee integer NOT NULL,**

**passport\_data character varying(100) NOT NULL,**

**fio character varying(50) NOT NULL,**

**id\_post integer NOT NULL**

**);**

**ALTER TABLE restauran.employee OWNER TO postgres;**

**--**

**-- TOC entry 222 (class 1259 OID 16597)**

**-- Name: employee\_id\_employee\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.employee\_id\_employee\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.employee\_id\_employee\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5003 (class 0 OID 0)**

**-- Dependencies: 222**

**-- Name: employee\_id\_employee\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.employee\_id\_employee\_seq OWNED BY restauran.employee.id\_employee;**

**--**

**-- TOC entry 223 (class 1259 OID 16598)**

**-- Name: ingredient; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.ingredient (**

**id\_ingredient integer NOT NULL,**

**name character varying(40) NOT NULL,**

**product\_type character varying(20) NOT NULL,**

**required\_stock double precision NOT NULL,**

**quantity\_in\_stock double precision NOT NULL,**

**caloric\_content integer NOT NULL,**

**CONSTRAINT ingredient\_caloric\_content\_check CHECK ((caloric\_content >= 0)),**

**CONSTRAINT ingredient\_required\_stock\_check CHECK ((required\_stock > (0)::double precision))**

**);**

**ALTER TABLE restauran.ingredient OWNER TO postgres;**

**--**

**-- TOC entry 224 (class 1259 OID 16603)**

**-- Name: ingredient\_id\_ingredient\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.ingredient\_id\_ingredient\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.ingredient\_id\_ingredient\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5004 (class 0 OID 0)**

**-- Dependencies: 224**

**-- Name: ingredient\_id\_ingredient\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.ingredient\_id\_ingredient\_seq OWNED BY restauran.ingredient.id\_ingredient;**

**--**

**-- TOC entry 225 (class 1259 OID 16604)**

**-- Name: order\_composition; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.order\_composition (**

**id\_dish integer NOT NULL,**

**id\_order integer NOT NULL,**

**number\_of\_servings integer NOT NULL,**

**ready\_status character varying(14) NOT NULL,**

**order\_composition\_id integer NOT NULL,**

**CONSTRAINT order\_composition\_number\_of\_servings\_check CHECK ((number\_of\_servings > 0)),**

**CONSTRAINT order\_composition\_ready\_status\_check CHECK (((ready\_status)::text = ANY (ARRAY[('Готово'::character varying)::text, ('Взято в работу'::character varying)::text, ('В ожидании'::character varying)::text])))**

**);**

**ALTER TABLE restauran.order\_composition OWNER TO postgres;**

**--**

**-- TOC entry 226 (class 1259 OID 16609)**

**-- Name: order\_composition\_order\_composition\_id\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.order\_composition\_order\_composition\_id\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.order\_composition\_order\_composition\_id\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5005 (class 0 OID 0)**

**-- Dependencies: 226**

**-- Name: order\_composition\_order\_composition\_id\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.order\_composition\_order\_composition\_id\_seq OWNED BY restauran.order\_composition.order\_composition\_id;**

**--**

**-- TOC entry 227 (class 1259 OID 16610)**

**-- Name: orders; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.orders (**

**id\_order integer NOT NULL,**

**order\_date timestamp without time zone NOT NULL,**

**book\_date timestamp without time zone,**

**cost numeric NOT NULL,**

**id\_waiter integer NOT NULL,**

**id\_table integer NOT NULL,**

**CONSTRAINT orders\_cost\_check CHECK ((cost > (0)::numeric))**

**);**

**ALTER TABLE restauran.orders OWNER TO postgres;**

**--**

**-- TOC entry 228 (class 1259 OID 16616)**

**-- Name: orders\_id\_order\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.orders\_id\_order\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.orders\_id\_order\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5006 (class 0 OID 0)**

**-- Dependencies: 228**

**-- Name: orders\_id\_order\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.orders\_id\_order\_seq OWNED BY restauran.orders.id\_order;**

**--**

**-- TOC entry 229 (class 1259 OID 16617)**

**-- Name: post; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.post (**

**id\_post integer NOT NULL,**

**name character varying(30) NOT NULL,**

**salary numeric NOT NULL,**

**CONSTRAINT post\_salary\_check CHECK ((salary > (0)::numeric))**

**);**

**ALTER TABLE restauran.post OWNER TO postgres;**

**--**

**-- TOC entry 230 (class 1259 OID 16623)**

**-- Name: post\_id\_post\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.post\_id\_post\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.post\_id\_post\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5007 (class 0 OID 0)**

**-- Dependencies: 230**

**-- Name: post\_id\_post\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.post\_id\_post\_seq OWNED BY restauran.post.id\_post;**

**--**

**-- TOC entry 231 (class 1259 OID 16624)**

**-- Name: purchase; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.purchase (**

**id\_purchase integer NOT NULL,**

**puschase\_date date NOT NULL,**

**provider character varying(30) NOT NULL,**

**purchase\_volume integer NOT NULL,**

**ingredient\_price integer NOT NULL,**

**id\_ingredient integer,**

**expiration\_date timestamp without time zone NOT NULL,**

**remaining\_amount\_of\_ingredient integer NOT NULL,**

**measure\_unit\_purchase character varying(15) NOT NULL,**

**CONSTRAINT check\_measure CHECK (((measure\_unit\_purchase)::text = ANY (ARRAY[('мл'::character varying)::text, ('гр'::character varying)::text, ('кг'::character varying)::text, ('шт'::character varying)::text]))),**

**CONSTRAINT purchase\_ingredient\_price\_check CHECK ((ingredient\_price > 0)),**

**CONSTRAINT purchase\_purchase\_volume\_check CHECK ((purchase\_volume > 0))**

**);**

**ALTER TABLE restauran.purchase OWNER TO postgres;**

**--**

**-- TOC entry 232 (class 1259 OID 16629)**

**-- Name: purchase\_id\_purchase\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.purchase\_id\_purchase\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.purchase\_id\_purchase\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5008 (class 0 OID 0)**

**-- Dependencies: 232**

**-- Name: purchase\_id\_purchase\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.purchase\_id\_purchase\_seq OWNED BY restauran.purchase.id\_purchase;**

**--**

**-- TOC entry 233 (class 1259 OID 16630)**

**-- Name: shift; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.shift (**

**id\_shift integer NOT NULL,**

**date\_from timestamp without time zone NOT NULL,**

**date\_by timestamp without time zone NOT NULL,**

**CONSTRAINT shift\_check2 CHECK ((date\_by >= date\_from))**

**);**

**ALTER TABLE restauran.shift OWNER TO postgres;**

**--**

**-- TOC entry 234 (class 1259 OID 16634)**

**-- Name: shift\_id\_shift\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.shift\_id\_shift\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.shift\_id\_shift\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5009 (class 0 OID 0)**

**-- Dependencies: 234**

**-- Name: shift\_id\_shift\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.shift\_id\_shift\_seq OWNED BY restauran.shift.id\_shift;**

**--**

**-- TOC entry 235 (class 1259 OID 16635)**

**-- Name: skill; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**CREATE TABLE restauran.skill (**

**id\_employee integer NOT NULL,**

**id\_dish integer NOT NULL,**

**skill\_id integer NOT NULL**

**);**

**ALTER TABLE restauran.skill OWNER TO postgres;**

**--**

**-- TOC entry 236 (class 1259 OID 16638)**

**-- Name: skill\_skill\_id\_seq; Type: SEQUENCE; Schema: restauran; Owner: postgres**

**--**

**CREATE SEQUENCE restauran.skill\_skill\_id\_seq**

**AS integer**

**START WITH 1**

**INCREMENT BY 1**

**NO MINVALUE**

**NO MAXVALUE**

**CACHE 1;**

**ALTER SEQUENCE restauran.skill\_skill\_id\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5010 (class 0 OID 0)**

**-- Dependencies: 236**

**-- Name: skill\_skill\_id\_seq; Type: SEQUENCE OWNED BY; Schema: restauran; Owner: postgres**

**--**

**ALTER SEQUENCE restauran.skill\_skill\_id\_seq OWNED BY restauran.skill.skill\_id;**

**--**

**-- TOC entry 237 (class 1259 OID 16639)**

**-- Name: tables; Type: TABLE; Schema: restauran; Owner: postgres**

**--**

**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 238 (class 1259 OID 16644)**

**-- 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 SEQUENCE restauran.tables\_id\_table\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5011 (class 0 OID 0)**

**-- Dependencies: 238**

**-- 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 239 (class 1259 OID 16645)**

**-- 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, ('Отгул'::character varying)::text])))**

**);**

**ALTER TABLE restauran.timetable OWNER TO postgres;**

**--**

**-- TOC entry 240 (class 1259 OID 16649)**

**-- 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 SEQUENCE restauran.timetable\_timetable\_id\_seq OWNER TO postgres;**

**--**

**-- TOC entry 5012 (class 0 OID 0)**

**-- Dependencies: 240**

**-- 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 4748 (class 2604 OID 16651)**

**-- 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 4749 (class 2604 OID 16654)**

**-- 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 4750 (class 2604 OID 16657)**

**-- 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 4751 (class 2604 OID 16799)**

**-- 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 4752 (class 2604 OID 16660)**

**-- 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 4753 (class 2604 OID 16666)**

**-- 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 4754 (class 2604 OID 16672)**

**-- 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 4755 (class 2604 OID 16676)**

**-- 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 4756 (class 2604 OID 16681)**

**-- 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 4757 (class 2604 OID 16685)**

**-- 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 4758 (class 2604 OID 16688)**

**-- 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 4759 (class 2604 OID 16694)**

**-- 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 4760 (class 2604 OID 16698)**

**-- 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 4968 (class 0 OID 16579)**

**-- Dependencies: 215**

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

**--**

**COPY restauran.cost (id\_dish, date\_from, date\_by, cost\_id) FROM stdin;**

**1 2023-03-07 12:00:00 2023-03-07 12:30:00 1**

**2 2023-03-08 15:28:00 2023-03-08 15:45:00 2**

**3 2023-03-08 15:40:00 2023-03-08 16:00:00 3**

**\.**

**--**

**-- TOC entry 4970 (class 0 OID 16584)**

**-- Dependencies: 217**

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

**--**

**COPY restauran.dish (id\_dish, dish\_type, name) FROM stdin;**

**2 горячее Мясо по-французски**

**3 дессерт Торт "Наполеон"**

**1 салат Цезарь**

**\.**

**--**

**-- TOC entry 4971 (class 0 OID 16588)**

**-- Dependencies: 218**

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

**--**

**COPY restauran.dish\_composition (id\_dish, id\_ingredient, ingredient\_volume, dish\_composition\_id, measure\_unit) FROM stdin;**

**1 3 2 1 шт**

**2 1 1 2 гр**

**2 2 1 3 гр**

**\.**

**--**

**-- TOC entry 4974 (class 0 OID 16594)**

**-- Dependencies: 221**

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

**--**

**COPY restauran.employee (id\_employee, passport\_data, fio, id\_post) FROM stdin;**

**1 4018 998445 Иванов Иван Иванович 3**

**2 5334 584036 Лопаткина Виктория Юрьевна 1**

**3 3804 638490 Петров Максим Максимович 3**

**\.**

**--**

**-- TOC entry 4976 (class 0 OID 16598)**

**-- Dependencies: 223**

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

**--**

**COPY restauran.ingredient (id\_ingredient, name, product\_type, required\_stock, quantity\_in\_stock, caloric\_content) FROM stdin;**

**2 Говядина Мясо 8 7 187**

**1 Лук Овощи 5 3.5 40**

**3 Яйцо куриное Яйца 10 9.2 143**

**\.**

**--**

**-- TOC entry 4978 (class 0 OID 16604)**

**-- Dependencies: 225**

**-- Data for Name: order\_composition; Type: TABLE DATA; Schema: restauran; Owner: postgres**

**--**

**COPY restauran.order\_composition (id\_dish, id\_order, number\_of\_servings, ready\_status, order\_composition\_id) FROM stdin;**

**2 1 2 Взято в работу 1**

**1 2 1 Готово 2**

**3 1 1 В ожидании 3**

**\.**

**--**

**-- TOC entry 4980 (class 0 OID 16610)**

**-- Dependencies: 227**

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

**--**

**COPY restauran.orders (id\_order, order\_date, book\_date, cost, id\_waiter, id\_table) FROM stdin;**

**1 2023-03-07 18:00:00 \N 506.95 1 1**

**2 2023-03-07 18:36:00 2023-03-07 18:00:00 1263 3 3**

**\.**

**--**

**-- TOC entry 4982 (class 0 OID 16617)**

**-- Dependencies: 229**

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

**--**

**COPY restauran.post (id\_post, name, salary) FROM stdin;**

**1 Повар 60000**

**2 Шеф-повар 100000**

**3 Официант 45000**

**\.**

**--**

**-- TOC entry 4984 (class 0 OID 16624)**

**-- Dependencies: 231**

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

**--**

**COPY restauran.purchase (id\_purchase, puschase\_date, provider, purchase\_volume, ingredient\_price, id\_ingredient, expiration\_date, remaining\_amount\_of\_ingredient, measure\_unit\_purchase) FROM stdin;**

**1 2023-06-03 ООО "Огурчик" 100 20 1 2023-03-11 09:00:00 3 кг**

**2 2023-06-03 "У Молочника" 50 40 3 2023-03-10 09:00:00 40 шт**

**3 2023-07-03 ООО "Дары природы" 140 50 2 2023-03-08 09:00:00 5 кг**

**\.**

**--**

**-- TOC entry 4986 (class 0 OID 16630)**

**-- Dependencies: 233**

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

**--**

**COPY restauran.shift (id\_shift, date\_from, date\_by) FROM stdin;**

**1 2023-03-07 09:00:00 2023-03-07 20:00:00**

**2 2023-03-07 08:00:00 2023-03-07 20:00:00**

**3 2023-03-08 08:00:00 2023-03-08 20:00:00**

**\.**

**--**

**-- TOC entry 4988 (class 0 OID 16635)**

**-- Dependencies: 235**

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

**--**

**COPY restauran.skill (id\_employee, id\_dish, skill\_id) FROM stdin;**

**2 2 1**

**2 1 2**

**2 3 3**

**\.**

**--**

**-- TOC entry 4990 (class 0 OID 16639)**

**-- Dependencies: 237**

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

**--**

**COPY restauran.tables (id\_table, cleaning\_status, reservation\_status) FROM stdin;**

**1 Да Нет**

**2 Нет Нет**

**3 Да Да**

**\.**

**--**

**-- TOC entry 4992 (class 0 OID 16645)**

**-- Dependencies: 239**

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

**--**

**COPY restauran.timetable (id\_employee, id\_shift, status\_at\_work, timetable\_id) FROM stdin;**

**1 3 По графику 1**

**3 1 Доп 2**

**3 2 Отгул 3**

**\.**

**--**

**-- TOC entry 5013 (class 0 OID 0)**

**-- Dependencies: 216**

**-- 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 5014 (class 0 OID 0)**

**-- Dependencies: 219**

**-- 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 5015 (class 0 OID 0)**

**-- Dependencies: 220**

**-- 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 5016 (class 0 OID 0)**

**-- Dependencies: 222**

**-- 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 5017 (class 0 OID 0)**

**-- Dependencies: 224**

**-- 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 5018 (class 0 OID 0)**

**-- Dependencies: 226**

**-- 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 5019 (class 0 OID 0)**

**-- Dependencies: 228**

**-- 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 5020 (class 0 OID 0)**

**-- Dependencies: 230**

**-- 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 5021 (class 0 OID 0)**

**-- Dependencies: 232**

**-- 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 5022 (class 0 OID 0)**

**-- Dependencies: 234**

**-- 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 5023 (class 0 OID 0)**

**-- Dependencies: 236**

**-- 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 5024 (class 0 OID 0)**

**-- Dependencies: 238**

**-- 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 5025 (class 0 OID 0)**

**-- Dependencies: 240**

**-- 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 4779 (class 2606 OID 16700)**

**-- 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 4785 (class 2606 OID 16702)**

**-- 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 4781 (class 2606 OID 16704)**

**-- 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 4783 (class 2606 OID 16707)**

**-- 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 4787 (class 2606 OID 16709)**

**-- 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 4791 (class 2606 OID 16711)**

**-- 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 4793 (class 2606 OID 16713)**

**-- 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 4799 (class 2606 OID 16715)**

**-- 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 4795 (class 2606 OID 16717)**

**-- 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 4797 (class 2606 OID 16719)**

**-- 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 4789 (class 2606 OID 16721)**

**-- 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 4801 (class 2606 OID 16723)**

**-- 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 4803 (class 2606 OID 16725)**

**-- 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 4805 (class 2606 OID 16727)**

**-- 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 4807 (class 2606 OID 16729)**

**-- 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 4809 (class 2606 OID 16731)**

**-- 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 4811 (class 2606 OID 16733)**

**-- 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 4812 (class 2606 OID 16734)**

**-- 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 4813 (class 2606 OID 16739)**

**-- 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 4814 (class 2606 OID 16744)**

**-- 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 4815 (class 2606 OID 16749)**

**-- 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 4820 (class 2606 OID 16802)**

**-- 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);**

**--**

**-- TOC entry 4816 (class 2606 OID 16759)**

**-- 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 4817 (class 2606 OID 16764)**

**-- 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 4818 (class 2606 OID 16769)**

**-- 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 4819 (class 2606 OID 16774)**

**-- 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 4821 (class 2606 OID 16779)**

**-- 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 4822 (class 2606 OID 16784)**

**-- 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 4823 (class 2606 OID 16789)**

**-- 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 4824 (class 2606 OID 16794)**

**-- 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);**

**-- Completed on 2023-12-12 19:08:28**

**--**

**-- PostgreSQL database dump complete**

**--**

# Вывод:

В данной лабораторной работе я успешно овладел практическими навыками работы с базой данных PostgreSQL в pgAdmin 4. Важными этапами работы были создание таблиц, заполнение их данными, резервное копирование и восстановление БД. Вот основные моменты, которые я усвоила:

Создание таблиц: научился создавать таблицы в базе данных PostgreSQL, определяя структуру таблицы, столбцы и их типы данных. Также уделил внимание определению первичных и внешних ключей, что позволяет устанавливать связи между таблицами.

Заполнение таблиц данными: я научился добавлять данные в таблицы с помощью SQL-запросов, используя операторы INSERT INTO.

Резервное копирование базы данных: освоил создание резервных копий базы данных с помощью инструмента pg\_dump.

Восстановление базы данных: я узнал, как восстановить базу данных из резервной копии, используя инструмент pg\_restore.