Задание на промежуточную аттестацию

Необходимо спроектировать и разработать БД магазина.

Специализацию магазина можно выбрать самостоятельно

В данной БД должна хранится следующая информация:

- Информация о товаре
- Информация о сотрудниках
- Информация о клиентах
- Информация о поставках товаров
- Информация о продажах

Количество таблиц и столбцов необходимо определить самостоятельно. В каждой таблице должно быть не менее 5 записей. Для заполнения таблиц можно использовать различные генераторы информации.

БД магазина мебели_инф >> https://disk.yandex.ru/i/KCc3uG5NWMyZ1g

БД магазина мебели_дата >> https://disk.yandex.ru/i/aHq7eF0gYu2r6A

ERD модель >> https://disk.yandex.ru/i/APFC7Gp5-X3WvQ

Необходимо выполнить следующие запросы:

- Создание таблиц
- Заполнение таблиц

```
CREATE TABLE public.passport (

   id integer NOT NULL,

   p_series int NOT NULL,

   p_number int NOT NULL,

   place_of_birth text ,

   issued_by text NOT NULL,

   date_of_issue date NOT NULL,

   registration_address text NOT NULL,

   CONSTRAINT valid_p_series CHECK (p_series >= 1000 and p_series <= 9999),

   CONSTRAINT valid_p_number CHECK (p_number >= 100000 and p_number <= 999999)

   );



ALTER TABLE public.passport OWNER TO postgres;



CREATE TABLE public.department (

   id integer NOT NULL,
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   type_department varchar (30) NOT NULL

   );



ALTER TABLE public.department OWNER TO postgres;



CREATE TABLE public.payment_type (

   id integer NOT NULL,

   type_of_payment varchar (30) NOT NULL

   );



ALTER TABLE public.payment_type OWNER TO postgres;



CREATE TABLE public.delivery_type (

   id integer NOT NULL,

   type_of_delivery varchar (30) NOT NULL

   );



ALTER TABLE public.delivery_type OWNER TO postgres;



CREATE TABLE public.order_status (

   id integer NOT NULL,
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   status_of_order varchar (20)

   );



ALTER TABLE public.order_status OWNER TO postgres;



CREATE TABLE public.bank_details_private_person (

   id integer NOT NULL,

   INN numeric NOT NULL,

   bank_name text NOT NULL,

   operating_account numeric NOT NULL,

   correspondent_accoun numeric NOT NULL,

   BIK numeric NOT NULL,

   CONSTRAINT valid_INN CHECK (INN >= 100000000000 and INN <= 999999999999),

   CONSTRAINT valid_operating_account CHECK (operating_account >= 10000000000000000000 and
operating_account <= 99999999999999999999),

   CONSTRAINT valid_correspondent_accoun CHECK (correspondent_accoun >= 10000000000000000000
and correspondent_accoun <= 99999999999999999999),

   CONSTRAINT valid_BIK CHECK (BIK >= 000000001 and BIK <= 999999999)

   );



ALTER TABLE public.bank_details_private_person OWNER TO postgres;
```

```
CREATE TABLE public.bank_details_legal_person (

   id integer NOT NULL,

   INN numeric NOT NULL,

   bank_name text NOT NULL,

   operating_account numeric NOT NULL,

   correspondent_accoun numeric NOT NULL,

   BIK numeric NOT NULL,

   CONSTRAINT valid_INN CHECK (INN >= 1000000000 and INN <= 9999999999),

   CONSTRAINT valid_operating_account CHECK (operating_account >= 10000000000000000000 and
operating_account <= 99999999999999999999),

   CONSTRAINT valid_correspondent_accoun CHECK (correspondent_accoun >= 10000000000000000000
and correspondent_accoun <= 99999999999999999999),

   CONSTRAINT valid_BIK CHECK (BIK >= 000000001 and BIK <= 999999999)

   );



ALTER TABLE public.bank_details_legal_person OWNER TO postgres;



CREATE TABLE public.type_product (

   id integer NOT NULL,

   locker varchar (30),

   rack varchar (30),

   dresser varchar (30),
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   bollard varchar (30),

   office_chair varchar (30),

   office_desk varchar (30),

   dining_table varchar (30),

   chair varchar (30),

   upholstered_furniture varchar (30),

   mattress varchar (30)

   );



ALTER TABLE public.type_product OWNER TO postgres;



CREATE TABLE public.manufacturer (

   id integer NOT NULL,

   company_name varchar (50) NOT NULL,

   address text NOT NULL,

   contact_phone character varying NOT NULL,

   email character varying NOT NULL,

   CONSTRAINT ck_email CHECK (((email)::text ~
'^[-\w.]+@([A-z0-9][-A-z0-9]+\.)+[A-z]{2,4}$'::text)),

   CONSTRAINT ck_phone_number CHECK (((contact_phone)::text ~
'^((\+7|7|8)+([0-9]){10})$'::text))

   );
```

```
ALTER TABLE public.manufacturer OWNER TO postgres;


CREATE TABLE public.vendor (
   id integer NOT NULL,
   company_name varchar (50) NOT NULL,
   address text NOT NULL,
   contact_phone character varying NOT NULL,
   email character varying NOT NULL,
   contact_last_name varchar (50),
   contact_first_name varchar (50),
   contact_patronymic varchar (50),
   bank_detail_legal_person_id integer NOT NULL,
   employee_id integer NOT NULL,
   CONSTRAINT ck_email CHECK (((email)::text ~
'^[-\w.]+@([A-z0-9][-A-z0-9]+\.)+[A-z]{2,4}$'::text)),
   CONSTRAINT ck_phone_number CHECK (((contact_phone)::text ~
'^((\+7|7|8)+([0-9]){10})$'::text))
   );


ALTER TABLE public.vendor OWNER TO postgres;
```

```
CREATE TABLE public.employee (

   id integer NOT NULL,

   first_name character varying(50) NOT NULL,

   last_name character varying(50) NOT NULL,

   patronymic character varying(50) NOT NULL,

   date_of_birth date NOT NULL,

   address text NOT NULL,

   email character varying NOT NULL,

   phone_number character varying NOT NULL,

   passport_id integer NOT NULL,

   position_in_department varchar (30) NOT NULL,

   department_id integer NOT NULL,

   CONSTRAINT ck_email CHECK (((email)::text ~
'^[-\w.]+@([A-z0-9][-A-z0-9]+\.)+[A-z]{2,4}$'::text)),

   CONSTRAINT ck_phone_number CHECK (((phone_number)::text ~
'^((\+7|7|8)+([0-9]){10})$'::text))

);



ALTER TABLE public.employee OWNER TO postgres;



CREATE TABLE public.client_type (

   id integer NOT NULL,
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 type_of_client varchar (15) NOT NULL

   );

 ALTER TABLE public.client_type OWNER TO postgres;



CREATE TABLE public.client (

   id integer NOT NULL,

   type_client varchar (15) NOT NULL,

   first_name character varying(50) NOT NULL,

   last_name character varying(50) NOT NULL,

   patronymic character varying(50),

   company_name varchar (50) NOT NULL,

   address text,

   email character varying,

   phone_number character varying NOT NULL,

   employee_id integer NOT NULL,

   bank_details_legal_person_id integer,

   bank_details_private_person_id integer,

   CONSTRAINT ck_email CHECK (((email)::text ~
'^[-\w.]+@([A-z0-9][-A-z0-9]+\.)+[A-z]{2,4}$'::text)),

   CONSTRAINT ck_phone_number CHECK (((phone_number)::text ~
'^((\+7|7|8)+([0-9]){10})$'::text))

);
```

```
ALTER TABLE public.client OWNER TO postgres;


CREATE TABLE public.supply (
   id integer NOT NULL,
   code varchar (15) NOT NULL,
   vendor_code varchar (15) NOT NULL,
   price decimal NOT NULL,
   quantity NUMERIC NOT NULL,
   data_supply date NOT NULL,
   type_product_id integer NOT NULL,
   manufacturer_id integer NOT NULL,
   vendor_id integer NOT NULL
   );


ALTER TABLE public.supply OWNER TO postgres;


CREATE TABLE public.product (
   id integer NOT NULL,
   product_name text NOT NULL,
   vendor_code varchar (15) NOT NULL,
```

```
    price decimal NOT NULL,

    quantity NUMERIC NOT NULL,

    type_product_id integer NOT NULL,

    manufacturer_id integer NOT NULL,

    supply_id integer NOT NULL

    );



ALTER TABLE public.product OWNER TO postgres;



CREATE TABLE public.order_product (

    id integer NOT NULL,

    data_accepted_order date NOT NULL,

    data_executed_order date NOT NULL,

    product_id integer NOT NULL,

    quantity NUMERIC NOT NULL,

    address_delivery text NOT NULL,

    price_delivery DECIMAL NOT NULL,

    order_status_id integer NOT NULL,

    employee_id integer NOT NULL

    );
```

```
ALTER TABLE public.order_product OWNER TO postgres;



CREATE TABLE public.sale (

   id integer NOT NULL,

   order_product_id integer NOT NULL,

   client_id integer NOT NULL,

   employee_id integer NOT NULL,

   payment_type_id integer NOT NULL,

   type_delivery_id integer NOT NULL

   );



ALTER TABLE public.sale OWNER TO postgres;









ALTER TABLE ONLY public.passport

   ADD CONSTRAINT passport_pkey PRIMARY KEY (id);

 ALTER TABLE ONLY public.department

   ADD CONSTRAINT cdepartment_pkey PRIMARY KEY (id);

 ALTER TABLE ONLY public.payment_type

   ADD CONSTRAINT payment_type_pkey PRIMARY KEY (id);
```

```
ALTER TABLE ONLY public.type_delivery
  ADD CONSTRAINT type_delivery_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.order_status
  ADD CONSTRAINT order_status_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.bank_details_private_person
  ADD CONSTRAINT bank_details_private_person_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.bank_details_legal_person
  ADD CONSTRAINT bank_details_legal_person_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.type_product
  ADD CONSTRAINT type_product_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.manufacturer
  ADD CONSTRAINT manufacturer_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.vendor
  ADD CONSTRAINT vendor_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.employee
  ADD CONSTRAINT employee_pkey PRIMARY KEY (id);


ALTER TABLE ONLY public.client
  ADD CONSTRAINT client_pkey PRIMARY KEY (id);
ALTER TABLE ONLY public.supply
  ADD CONSTRAINT supply_pkey PRIMARY KEY (id);
```

```
ALTER TABLE ONLY public.product

   ADD CONSTRAINT product_pkey PRIMARY KEY (id);



ALTER TABLE ONLY public.order_product

   ADD CONSTRAINT corder_product_pkey PRIMARY KEY (id);

 ALTER TABLE ONLY public.sale

   ADD CONSTRAINT sale_pkey PRIMARY KEY (id);



ALTER TABLE ONLY public.client_type

   ADD CONSTRAINT client_type_pkey PRIMARY KEY (id);









ALTER TABLE ONLY public.employee

   ADD CONSTRAINT employee_passport_id_fkey FOREIGN KEY (passport_id) REFERENCES
public.passport(id);



ALTER TABLE ONLY public.employee

   ADD CONSTRAINT employee_department_id_fkey FOREIGN KEY (department_id) REFERENCES
public.department(id);
```

```
ALTER TABLE ONLY public.sale

   ADD CONSTRAINT sale_order_product_id_fkey FOREIGN KEY (order_product_id) REFERENCES
order_product(id);



ALTER TABLE ONLY public.sale

   ADD CONSTRAINT sale_client_id_fkey FOREIGN KEY (client_id) REFERENCES client(id);



ALTER TABLE ONLY public.sale

   ADD CONSTRAINT sale_employee_id_fkey FOREIGN KEY (employee_id) REFERENCES employee(id);



ALTER TABLE ONLY public.sale

   ADD CONSTRAINT sale_payment_type_id_fkey FOREIGN KEY (payment_type_id) REFERENCES
payment_type(id);



ALTER TABLE ONLY public.sale

   ADD CONSTRAINT sale_type_delivery_id_fkey FOREIGN KEY (type_delivery_id) REFERENCES
type_delivery(id);



ALTER TABLE ONLY public.order_product

   ADD CONSTRAINT order_product_employee_id_fkey FOREIGN KEY (employee_id) REFERENCES
public.employee(id);
```

```
ALTER TABLE ONLY public.order_product

   ADD CONSTRAINT order_product_product_id_fkey FOREIGN KEY (product_id) REFERENCES
public.product(id);



ALTER TABLE ONLY public.order_product

   ADD CONSTRAINT order_product_order_status_id_fkey FOREIGN KEY (order_status_id) REFERENCES
public.order_status_id(id);



ALTER TABLE ONLY public.product

   ADD CONSTRAINT product_type_product_id_fkey FOREIGN KEY (type_product_id) REFERENCES
public.type_product(id);



ALTER TABLE ONLY public.product

   ADD CONSTRAINT product_manufacturer_id_fkey FOREIGN KEY (manufacturer_id) REFERENCES
public.manufacturer(id);



ALTER TABLE ONLY public.product

   ADD CONSTRAINT product_supply_id_fkey FOREIGN KEY (supply_id) REFERENCES
public.supply(id);



ALTER TABLE ONLY public.supply

   ADD CONSTRAINT supply_type_product_id_fkey FOREIGN KEY (type_product_id) REFERENCES
public.type_product(id);
```

```
ALTER TABLE ONLY public.supply

   ADD CONSTRAINT supply_manufacturer_id_fkey FOREIGN KEY (manufacturer_id) REFERENCES
public.manufacturer(id);



ALTER TABLE ONLY public.supply

   ADD CONSTRAINT supply_vendor_id_fkey FOREIGN KEY (vendor_id) REFERENCES public.vendor(id);



ALTER TABLE ONLY public.client

   ADD CONSTRAINT client_employee_id_fkey FOREIGN KEY (employee_id) REFERENCES
public.employee(id);



ALTER TABLE ONLY public.client

   ADD CONSTRAINT client_bank_details_legal_person_id_fkey FOREIGN KEY
(bank_details_legal_person_id) REFERENCES public.bank_details_legal_person(id);



ALTER TABLE ONLY public.client

   ADD CONSTRAINT client_bank_details_private_person_id_fkey FOREIGN KEY
(bank_details_private_person_id) REFERENCES public.bank_details_private_person(id);



ALTER TABLE ONLY public.vendor

   ADD CONSTRAINT vendor_bank_detail_legal_person_id_fkey FOREIGN KEY
(bank_detail_legal_person_id) REFERENCES public.bank_details_legal_person(id);
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```
ALTER TABLE ONLY public.vendor

   ADD CONSTRAINT vendor_employee_id_fkey FOREIGN KEY (employee_id) REFERENCES
public.employee(id);



ALTER TABLE ONLY public.client

   ADD CONSTRAINT client_client_type_fkey FOREIGN KEY (client_type_id) REFERENCES
public.client_type(id);









INSERT INTO public.passport (id, p_series, p_number, place_of_birth, issued_by,
date_of_issue, registration_address) VALUES (1, 4895, 263505, 'г. Каменск - Уральский',
'Отделением УФМС России в г. Ижевск', '2015-03-09', 'Россия, г. Каменск - Уральский,
Солнечный пер., д. 12 кв.205');

INSERT INTO public.passport (id, p_series, p_number, place_of_birth, issued_by,
date_of_issue, registration_address) VALUES (2, 4262, 525216, 'г. Астрахань', 'Отделением
УФМС России по г. Дзержинск', '2021-10-10', 'Россия, г. Астрахань, Вишневая ул., д. 13
кв.20');

INSERT INTO public.passport (id, p_series, p_number, place_of_birth, issued_by,
date_of_issue, registration_address) VALUES (3, 4147, 695355, 'г. Краснодар', 'Отделом
внутренних дел России по г. Шахты', '2013-03-02', 'Россия, г. Краснодар, Кирова ул., д. 22
кв.7');

INSERT INTO public.passport (id, p_series, p_number, place_of_birth, issued_by,
date_of_issue, registration_address) VALUES (4, 4979, 459619, 'г. Камышин', 'Отделом УФМС
России по г. Оренбург', '2015-09-04', 'Россия, г. Камышин, Севернаяул., д. 24 кв.133');

INSERT INTO public.passport (id, p_series, p_number, place_of_birth, issued_by,
date_of_issue, registration_address) VALUES (5, 4812, 723818, 'г. Бердск', 'Отделением УФМС
России по г. Томск', '2014-12-04', 'Россия, г. Бердск, Заслонова ул., д. 1 кв.180');
```

```
INSERT INTO public.department (id, type_department) VALUES ('top_management');

INSERT INTO public.department (id, type_department) VALUES ('sales_department');

INSERT INTO public.department (id, type_department) VALUES ('supply_department');

INSERT INTO public.department (id, type_department) VALUES ('warehouse');

INSERT INTO public.department (id, type_department) VALUES ('accounting_department');


 INSERT INTO payment_type (id, type_of_payment) VALUES ('cashless_payment');

INSERT INTO payment_type (id, type_of_payment) VALUES ('bank_card');

INSERT INTO payment_type (id, type_of_payment) VALUES ('cash');



INSERT INTO delivery_type (id, type_of_delivery) VALUES ('self_delivery');

INSERT INTO delivery_type (id, type_of_delivery) VALUES ('own_company_transport');


INSERT INTO order_status (id, status_of_order) VALUES ('accepted');

INSERT INTO order_status (id, status_of_order) VALUES ('in_progress');

INSERT INTO order_status (id, status_of_order) VALUES ('executed');
```

```
INSERT INTO bank_details_private_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (1, 803083559834, 'Приволжское отделение Сбербанка',
50390997200000008386, 50918213000000009308, 626369451);

INSERT INTO bank_details_private_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (2, 835003378154, 'Приволжское отделение Сбербанка',
40736786500000009457, 50918213000000009308, 626369451);

INSERT INTO bank_details_private_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (3, 859152558824, 'Приволжское отделение Сбербанка',
50826629800000007826, 50193678000000008978, 626369451);

INSERT INTO bank_details_private_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (4, 804047863472, 'Приволжское отделение Сбербанка',
40227914800000003438, 40682178700000002679, 626369451);

INSERT INTO bank_details_private_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (5, 676417561321, 'Приволжское отделение Сбербанка',
40777070900000006853, 40644081800000002410, 626369451);




INSERT INTO bank_details_legal_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (1, 8038359834, 'New Alliance Credit Union',
50390346200000008386, 98228213000000009308, 119869451);

INSERT INTO bank_details_legal_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (2, 8350033781, 'Credit Financial Services',
40782458650000000457, 34298213000000009308, 997869451);

INSERT INTO bank_details_legal_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (3, 8591525824, 'New Alliance Banks', 28766629800000007826,
45113678000000008978, 563369451);

INSERT INTO bank_details_legal_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (4, 8040863472, 'Sparkle Financial', 40222361800000003438,
12002178700000002679, 871269451);
```

```
INSERT INTO bank_details_legal_person (id, INN, bank_name, operating_account,
correspondent_accoun, BIK) VALUES (5, 6764175621, 'Eminence Holding Company',
40744230900000006853, 77344081800000002410, 562369451);




INSERT INTO product_type (id, type_of_product) VALUES (1, 'locker');

INSERT INTO product_type (id, type_of_product) VALUES (2, 'rack');

INSERT INTO product_type (id, type_of_product) VALUES (3, 'dresser');

INSERT INTO product_type (id, type_of_product) VALUES (4, 'bollard');

INSERT INTO product_type (id, type_of_product) VALUES (5, 'office_chair');

INSERT INTO product_type (id, type_of_product) VALUES (6, 'office_desk');

INSERT INTO product_type (id, type_of_product) VALUES (7, 'dining_table');

INSERT INTO product_type (id, type_of_product) VALUES (8, 'upholstered_furniture');

INSERT INTO product_type (id, type_of_product) VALUES (9, 'mattress');




INSERT INTO manufacturer (id, company_name, address, contact_phone, email) VALUES (1, 'МКК
ЖелДорЛенТеле', '243186, Амурская область, город Одинцово, пр. 1905 года, 38', '79234567878',
'okey43@yahoo.com');

INSERT INTO manufacturer (id, company_name, address, contact_phone, email) VALUES (2, 'ООО
Компания СантехОмскГорТрест', '243186, Амурская область, город Одинцово, пр. 1905 года, 38',
'79126543456', 'magnus.friesen@yahoo.com');

INSERT INTO manufacturer (id, company_name, address, contact_phone, email) VALUES (3, 'ООО
ГлавЖелДорРыб', '424733, Ярославская область, город Ступино, спуск Ломоносова, 16',
'79118763332', 'shields.issac@bahringer.com');
```

```
INSERT INTO manufacturer (id, company_name, address, contact_phone, email) VALUES (4, 'МФО ДизайнДизайнЖелДорСбыт', '026076, Читинская область, город Волоколамск, пл. 1905 года, 90', '79653425876', 'lizeth00@hotmail.com');

INSERT INTO manufacturer (id, company_name, address, contact_phone, email) VALUES (5, 'МФО Мобайл', '321764, Свердловская область, город Орехово-Зуево, спуск Космонавтов, 49', '79226683420', 'kassulke.jessika@yahoo.com');



INSERT INTO employee (id, first_name, last_name, patronymic, date_of_birth, address, email, phone_number, passport_id, position_in_department, department_id) VALUES (1, 'Ева', 'Шульгина', 'Ивановна', '1976-06-30', '669681, Пензенская область, город Ступино, ул. Ленина, 96', 'quitzon.ashlynn@gmail.com', '79234567878', 1, 'Top Manager', 1);

INSERT INTO employee (id, first_name, last_name, patronymic, date_of_birth, address, email, phone_number, passport_id, position_in_department, department_id) VALUES (2, 'Ярослав', 'Носков', 'Григорьевич', '1989-12-04', '669645, Пензенская область, город Ступино, въезд Гагарина, 55', 'warren51@yahoo.com', '79234567878', 3, 'warehouse employee', 4);

INSERT INTO employee (id, first_name, last_name, patronymic, date_of_birth, address, email, phone_number, passport_id, position_in_department, department_id) VALUES (3, 'Константин', 'Волков', 'Ильич', '1985-07-11', '669624, Пензенская область, город Ступино, пр. Гоголя, 07', 'ymckenzie@hamill.org', '79234567878', 2, 'Sales Manager', 2);

INSERT INTO employee (id, first_name, last_name, patronymic, date_of_birth, address, email, phone_number, passport_id, position_in_department, department_id) VALUES (4, 'Анастасия', 'Пономарева', 'Кирилловна', '2000-11-12', '669689, Пензенская область, город Ступино, спуск Балканская, 12', 'ratke.nicholas@terry.com', '79234567878', 5, 'Purchasing Manager', 3);

INSERT INTO employee (id, first_name, last_name, patronymic, date_of_birth, address, email, phone_number, passport_id, position_in_department, department_id) VALUES (5, 'Назар', 'Белов', 'Максимович', '2001-09-09', '669676, Пензенская область, город Ступино, пл. 1905 года, 96', 'feil.isabell@rice.com', '79234567878', 4, 'accountant', 5);
```

```
INSERT INTO vendor (id, company_name, address, contact_phone, email, contact_last_name,
contact_first_name, contact_patronymic, bank_detail_legal_person_id, employee_id) VALUES (1,
'ООО Компания АвтоДиван', '552058, Ярославская область, город Лотошино, пл. Космонавтов, 32',
'79215673499', 'kameron.kutch@gmail.com', 'Мария', 'Субботина', 'Алексеевна', 3, 4);

INSERT INTO vendor (id, company_name, address, contact_phone, email, contact_last_name,
contact_first_name, contact_patronymic, bank_detail_legal_person_id, employee_id) VALUES (2,
'ОАО АлмазКрепБашкир', '973831, Волгоградская область, город Коломна, пр. Бухарестская, 18',
'79237652211', 'sebastian.aufderhar@gmail.com', 'Глеб', 'Ермаков', 'Евгеньевич', 5, 4);

INSERT INTO vendor (id, company_name, address, contact_phone, email, contact_last_name,
contact_first_name, contact_patronymic, bank_detail_legal_person_id, employee_id) VALUES (3,
'МФО Мебель', '015135, Нижегородская область, город Балашиха, пер. Ломоносова, 63',
'79127668846', 'price.hoyt@brekke.com', 'Даниил', 'Третьяков', 'Дмитриевич', 1, 4);

INSERT INTO vendor (id, company_name, address, contact_phone, email, contact_last_name,
contact_first_name, contact_patronymic, bank_detail_legal_person_id, employee_id) VALUES (4,
'ООО МебельТверь', '911722, Курская область, город Солнечногорск, бульвар Ладыгина, 64',
'79673442299', 'gkertzmann@harber.org', 'Дан', 'Кудряшов', 'Фёдорович', 2, 4);

INSERT INTO vendor (id, company_name, address, contact_phone, email, contact_last_name,
contact_first_name, contact_patronymic, bank_detail_legal_person_id, employee_id) VALUES (5,
'ООО ОдинцовоМебель', '243121, Амурская область, город Одинцово, ул. Ленина, 105',
'79226665434', 'hcollins@gmail.com', 'Надежда', 'Никонова', 'Сергеевна', 4, 4);




INSERT INTO client_type (id, type_of_client) VALUES (1, 'private');

INSERT INTO client_type (id, type_of_client) VALUES (2, 'legal');
```

```
INSERT INTO client (id, first_name, last_name, patronymic, address, email, phone_number,
employee_id, client_type_id, bank_details_private_person_id) VALUES (1, 'Александра',
'Щукина', 'Алексеевна', '669681, Пензенская область, город Ступино, пл. Космонавтов, 32',
'olson.jayda@huels.biz', '79234536712', 3, 1, 2);

INSERT INTO client (id, first_name, last_name, patronymic, company_name, address, email,
phone_number, employee_id, client_type_id, bank_details_legal_person_id) VALUES (2, 'Лариса',
'Тимофеева', 'Владимировна', 'ОАО ГлавМетал', '669681, Пензенская область, город Ступино,
пер. Ломоносова, 63', 'general.metz@yahoo.com', '79657773132', 3, 2, 1);

INSERT INTO client (id, first_name, last_name, patronymic, address, email, phone_number,
employee_id, client_type_id, bank_details_private_person_id) VALUES (3, 'Лаврентий',
'Фомичёв', 'Сергеевич', '669681, Пензенская область, город Ступино, пл. 1905 года, 77',
'wabshire@marks.com', '79117658989', 3, 1, 4);

INSERT INTO client (id, first_name, last_name, patronymic, company_name, address, email,
phone_number, employee_id, client_type_id, bank_details_legal_person_id) VALUES (4, 'Алёна',
'Макарова', 'Романовна', 'ООО Компания БухТрестАвто', '669681, Пензенская область, город
Ступино, пр-т. Космонавтов, 120', 'abshire.cecelia@glover.biz', '79173345566', 3, 2, 2);

INSERT INTO client (id, first_name, last_name, patronymic, company_name, address, email,
phone_number, employee_id, client_type_id, bank_details_legal_person_id) VALUES (5, 'Ян',
'Буров', 'Львович', 'ООО Тяж', '669681, Пензенская область, город Ступино, ул. Ленина, 50',
'davis.emilia@gmail.com', '79632555678', 3, 2, 5);




INSERT INTO supply (id, code, vendor_code, price, quantity, data_supply, type_product_id,
manufacturer_id, vendor_id) VALUES (1, 'A53', '23435465', 34775, 3, '2022-09-01', 8, 1, 1);

INSERT INTO supply (id, code, vendor_code, price, quantity, data_supply, type_product_id,
manufacturer_id, vendor_id) VALUES (2, 'D43', '32546747',  720.5, 9, '2022-08-25', 2, 4, 1);

INSERT INTO supply (id, code, vendor_code, price, quantity, data_supply, type_product_id,
manufacturer_id, vendor_id) VALUES (3, 'A78', '563653674', 14536, 2, '2022-09-12', 5, 2, 4);
```

```
INSERT INTO supply (id, code, vendor_code, price, quantity, data_supply, type_product_id,
manufacturer_id, vendor_id) VALUES (4, 'A87', '42425', 56432, 1, '2022-09-12', 8, 3, 2);

INSERT INTO supply (id, code, vendor_code, price, quantity, data_supply, type_product_id,
manufacturer_id, vendor_id) VALUES (5, 'D99', '425363', 654, 12, '2022-09-07', 4, 3, 3);




INSERT INTO product (id, product_name, vendor_code, price, quantity, type_product_id,
manufacturer_id, supply_id) VALUES (1, 'Диван Элегия', '42425', 56432, 1, 8, 3, 4);

INSERT INTO product (id, product_name, vendor_code, price, quantity, type_product_id,
manufacturer_id, supply_id) VALUES (2, 'Диван Ника', '23435465', 34775, 3, 8, 3, 1);

INSERT INTO product (id, product_name, vendor_code, price, quantity, type_product_id,
manufacturer_id, supply_id) VALUES (3, 'Кресло Топ', '563653674', 14536, 2, 5, 3, 3);

INSERT INTO product (id, product_name, vendor_code, price, quantity, type_product_id,
manufacturer_id, supply_id) VALUES (4, 'Стеллаж Мини', '42425', 56432, 1, 1, 3, 5);

INSERT INTO product (id, product_name, vendor_code, price, quantity, type_product_id,
manufacturer_id, supply_id) VALUES (5, 'Стул Мария', '32546747',  720.5, 9, 1, 3, 2);




INSERT INTO order_product (id, data_accepted_order, data_executed_order, product_id,
quantity, address_delivery, price_delivery, order_status_id, employee_id) VALUES (1,
'2022-09-01', '2022-09-05', 1, 1, '669681, Пензенская область, город Ступино, пл.
Космонавтов, 32', 500, 2, 3);

INSERT INTO order_product (id, data_accepted_order, data_executed_order, product_id,
quantity, address_delivery, price_delivery, order_status_id, employee_id) VALUES (2,
'2022-09-01', '2022-09-05', 2, 1, '669681, Пензенская область, город Ступино, пл. 1905 года,
77', 0, 1, 3);

INSERT INTO order_product (id, data_accepted_order, data_executed_order, product_id,
quantity, address_delivery, price_delivery, order_status_id, employee_id) VALUES (3,
```

```
'2022-09-01', '2022-09-05', 4, 10, '669681, Пензенская область, город Ступино, ул.
Бухарестская, 18', 1000, 3, 3);

INSERT INTO order_product (id, data_accepted_order, data_executed_order, product_id,
quantity, address_delivery, price_delivery, order_status_id, employee_id) VALUES (4,
'2022-09-01', '2022-09-05', 5, 6, '669681, Пензенская область, город Ступино, пр-т Гоголя,
57', 0, 3, 3);

INSERT INTO order_product (id, data_accepted_order, data_executed_order, product_id,
quantity, address_delivery, price_delivery, order_status_id, employee_id) VALUES (5,
'2022-09-01', '2022-09-05', 3, 2, '669681, Пензенская область, город Ступино, бульвар
Ладыгина, 64', 500, 1, 3);




INSERT INTO sale (id, order_product_id, client_id, employee_id, payment_type_id,
type_delivery_id) VALUES (1, 3, 1, 3, 3, 2);

INSERT INTO sale (id, order_product_id, client_id, employee_id, payment_type_id,
type_delivery_id) VALUES (2, 5, 3, 3, 2, 2);

INSERT INTO sale (id, order_product_id, client_id, employee_id, payment_type_id,
type_delivery_id) VALUES (3, 2, 2, 3, 1, 1);

INSERT INTO sale (id, order_product_id, client_id, employee_id, payment_type_id,
type_delivery_id) VALUES (4, 4, 4, 3, 1, 1);

INSERT INTO sale (id, order_product_id, client_id, employee_id, payment_type_id,
type_delivery_id) VALUES (5, 1, 5, 3, 1, 2);
```

- Вывод таблиц
- Использование select

```
SELECT * FROM employee;
```

Output | Messages | Notifications

id [PK] integer	first_name character varying (50)	last_name character varying (50)	patronymic character varying (50)	date_of_birth date	address text	email character varying	phone_number character varying	passport_id integer	position_in_department character varying (30)	departmen integer
2	Ярослав	Носков	Григорьевич	1989-12-04	669645, ...	warren51@yahoo...	79234567878	3	warehouse employee	
3	Константин	Волков	Ильич	1985-07-11	669624, ...	ymckenzie@ham...	79234567878	2	Sales Manager	
4	Анастасия	Пономарева	Кирилловна	2000-11-12	669689, ...	ratke.nicholas@t...	79234567878	5	Purchasing Manager	
5	Назар	Белов	Максимович	2001-09-09	669676, ...	feil.isabell@rice....	79234567878	4	accountant	
1	Ева	Шульгина	Ивановна	1976-06-30	669681, ...	quitzon.ashlynn...	79234567878	1	Top Manager	

- Объединение таблиц с помощью join

Query | Query History

```
1  select concat(employee.last_name, ' ', employee.first_name, ' ', employee.patronymic) AS ФИО_Сотрудника,
2  employee.date_of_birth AS Дата_рождения, employee.phone_number AS Телефон, employee.position_in_department AS Должность,
3  type_department AS Отдел
4  from employee right join department on department.id = employee.department_id;
```

Data output | Messages | Notifications

	ФИО_Сотрудника text	Дата_рождения date	Телефон character varying	Должность character varying (30)	Отдел character varying (30)
1	Шульгина Ева Ивановна	1976-06-30	79234567878	Top Manager	top_management
2	Волков Константин Ильич	1985-07-11	79234567878	Sales Manager	sales_department
3	Пономарева Анастасия Кирилловна	2000-11-12	79234567878	Purchasing Manager	supply_department
4	Носков Ярослав Григорьевич	1989-12-04	79234567878	warehouse employee	warehouse
5	Белов Назар Максимович	2001-09-09	79234567878	accountant	accounting_department

---

- Создание представления

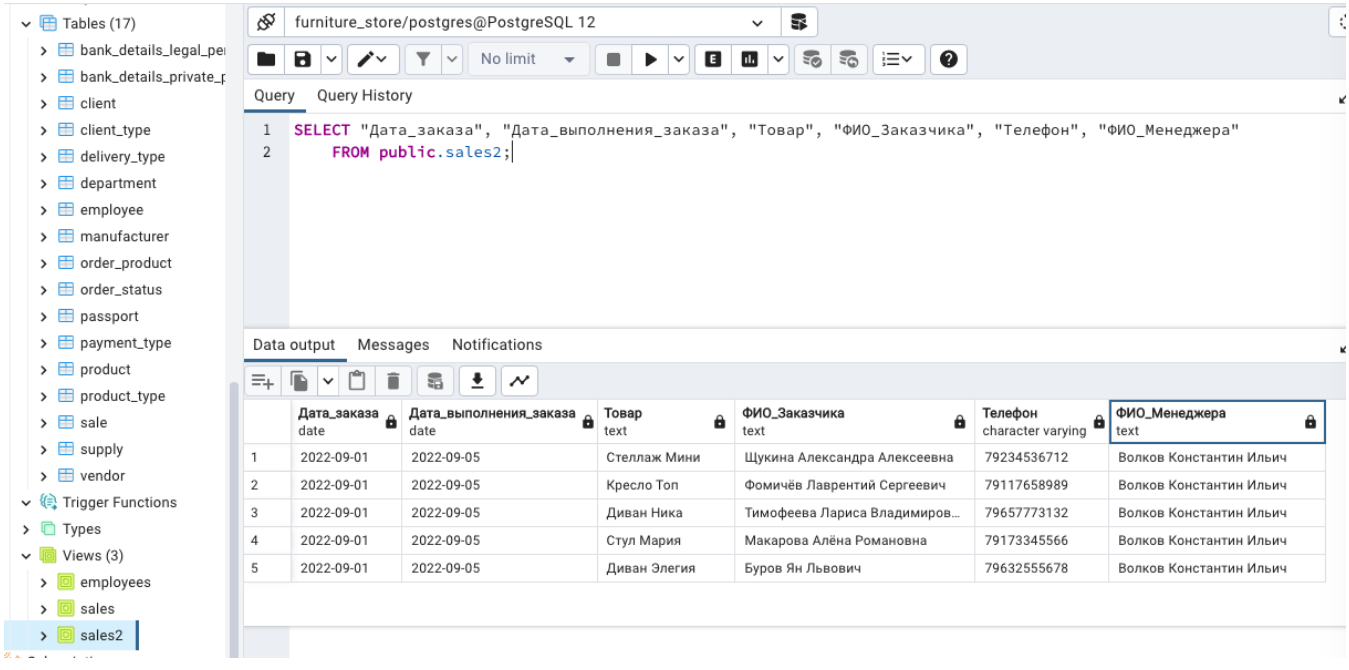
Query | Query History

```
1  CREATE VIEW sales2 AS
2
3  SELECT data_accepted_order AS Дата_заказа, data_executed_order AS Дата_выполнения_заказа,
4  product_name AS Товар, concat(client.last_name, ' ', client.first_name, ' ', client.patronymic) AS ФИО_Заказчика,
5  client.phone_number AS Телефон,
6  concat(employee.last_name, ' ', employee.first_name, ' ', employee.patronymic) AS ФИО_Менеджера
7      FROM public.sale LEFT join public.order_product ON order_product.id = sale.order_product_id
8  RIGHT join public.product ON product.id = order_product.product_id
9  LEFT join public.client ON client.id = sale.client_id
10 LEFT join public.employee ON employee.id = sale.employee_id
```

Data output | Messages | Notifications

```
CREATE VIEW

Query returned successfully in 1 secs 331 msec.
```



- Обновление записей (update)

Query Query History

```
1  UPDATE employee
2  SET patronymic = 'Петрович'
3  WHERE id = 3;
4
5
6  SELECT * FROM employee;
```

Data output Messages Notifications

	id [PK] integer	first_name character varying (50)	last_name character varying (50)	patronymic character varying (50)	da da
1	2	Ярослав	Носков	Григорьевич	19
2	3	Константин	Волков	Ильич	19
3	4	Анастасия	Пономарева	Кирилловна	20
4	5	Назар	Белов	Максимович	20
5	1	Ева	Шульгина	Ивановна	19

Query Query History

```
1  UPDATE employee
2  SET patronymic = 'Петрович'
3  WHERE id = 3;
4
5
6  SELECT * FROM employee;
```

Data output Messages Notifications

	id [PK] integer	first_name character varying (50)	last_name character varying (50)	patronymic character varying (50)	date_of_birth date	ad te
1	2	Ярослав	Носков	Григорьевич	1989-12-04	66
2	4	Анастасия	Пономарева	Кирилловна	2000-11-12	66
3	5	Назар	Белов	Максимович	2001-09-09	66
4	1	Ева	Шульгина	Ивановна	1976-06-30	66
5	3	Константин	Волков	Петрович	1985-07-11	66

- Удаление записей (delete)

Query | Query History

```
1  DELETE FROM product_type
2  WHERE type_of_product = 'mattress';
3
4  SELECT * FROM product_type;
```

Data output | Messages | Notifications

	id [PK] integer	type_of_product character varying (30)
1	1	locker
2	2	rack
3	3	dresser
4	4	bollard
5	5	office_chair
6	6	office_desk
7	7	dining_table
8	8	upholstered_furniture

- Группировка записей с помощью group by
- Использование where

// делаем выборку заказов с платной доставкой

Query Query History

```
1  SELECT id, data_accepted_order, data_executed_order, product_id, quantity,
2  address_delivery, price_delivery, order_status_id, employee_id
3  FROM order_product
4  WHERE price_delivery > 0
5  GROUP BY id, data_accepted_order, data_executed_order, product_id, quantity,
6  address_delivery, price_delivery, order_status_id, employee_id;
```

Data output Messages Notifications

	id [PK] integer	data_accepted date	data_execute date	product_id integer	quantity numeric	address_delivery text	price_delivery numeric	or in
1	3	2022-09-01	2022-09-05	4	10	669681, Пензен...	1000	
2	5	2022-09-01	2022-09-05	3	2	669681, Пензен...	500	
3	1	2022-09-01	2022-09-05	1	1	669681, Пензен...	500	

- Использование функции sum

// посчитать стоимость товаров на складе

```
SELECT SUM (price * quantity)
FROM product;
```

Data output Messages Notifications

	sum numeric
1	252745.5

- Сортировка записей по возрастанию

```
1  SELECT * FROM product
2  ORDER BY price;
```

Data output | Messages | Notifications

	id [PK] integer	product_name text	vendor_code character varying (15)	price numeric
1	6	"Стеллаж Ми...	456785432	620
2	5	Стул Мария	32546747	720.5
3	3	Кресло Топ	563653674	14536
4	2	Диван Ника	23435465	34775
5	1	Диван Элегия	42425	56432

- Сортировка записей по убыванию

```
SELECT * FROM product
ORDER BY price DESC;
```

a output | Messages | Notifications

	id [PK] integer	product_name text	vendor_code character varying (15)	price numeric
	1	Диван Элегия	42425	56432
	2	Диван Ника	23435465	34775
	3	Кресло Топ	563653674	14536
	5	Стул Мария	32546747	720.5
	6	"Стеллаж Мин...	456785432	620

- Использование having
- Нахождение максимального значения

```
SELECT price, max(price) AS Высокая_цена
    FROM public.product
    GROUP BY price
    HAVING max(price) > 30000;
```

Data output | Messages | Notifications

	price numeric	Высокая_цена numeric
1	34775	34775
2	56432	56432

- Использование limit

// выберем 2 строки, начиная со 5-й

```
SELECT * FROM product_type
ORDER BY type_of_product
LIMIT 2 OFFSET 5;
```

Data output | Messages | Notifications

	id [PK] integer	type_of_product character varying (30)
1	5	office_chair
2	6	office_desk

- Операторы сравнение
- Логические операторы

```
SELECT price FROM product
WHERE price > 10000 AND price < 50000
GROUP BY price;
```

Data output | Messages | Notifications

	price numeric
1	14536
2	34775

- Использование between

```
SELECT price FROM product
WHERE price BETWEEN 10000 AND 40000;
```

Data output | Messages | Notifications

	price numeric
1	34775
2	14536

- Использование IN
- Использование NOT IN

// выбираем клиентов–физиков

```
SELECT * FROM client
WHERE client_type_id IN (1);
```

Data output | Messages | Notifications

	id [PK] integer	first_name character varying (50)	last_name character varying (50)	patronymic character varying (50)	company_n character v
1	1	Александра	Щукина	Алексеевна	[null]
2	3	Лаврентий	Фомичёв	Сергеевич	[null]

// выбираем клиентов–не физиков (юриков)

```
SELECT * FROM client
WHERE client_type_id NOT IN (1);
```

Data output | Messages | Notifications

	id [PK] integer	first_name character varying (50)	last_name character varying (50)	patronymic character varying (50)	company_name character varying (50)	ac te
1	2	Лариса	Тимофеева	Владимировна	ОАО ГлавМетал	6
2	4	Алёна	Макарова	Романовна	ООО Компания БухТ...	6
3	5	Ян	Буров	Львович	ООО Тяж	6

- Нахождение минимального значения

```
SELECT MIN(price) FROM product;
```

Data output | Messages | Notifications

	min numeric
1	620

- Нахождение среднего значений

```
1  SELECT AVG(price * quantity) FROM product;
```

Data output | Messages | Graph Visualiser | Notificat

	avg numeric
1	40502.7000000000

Результат работы прикрепить в виде файла с расширением pdf. В данном файле отобразить все запросов с результатами и ERD модель, которая генерируется автоматически на основе таблиц в БД.