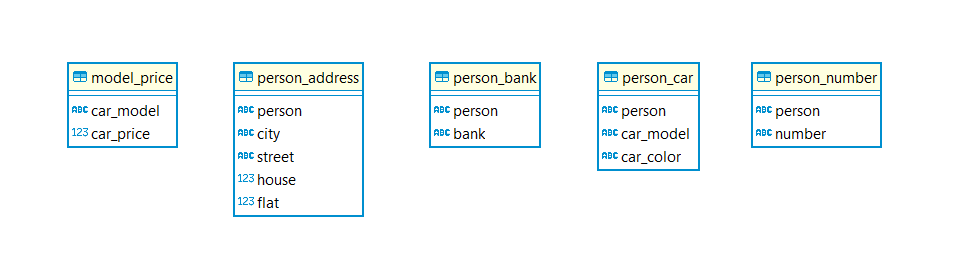
Сущности базы данных



1. Создание

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| **domains**  person, number = string.  city, street = string.  house, flat = unsigned.  address = address(city, street, house, flat).  car\_model, car\_color, bank = string.  car\_price, bank\_sum = unsigned. |  |
| **predicates**  person\_number(person, number). | **create table** person\_number (  person text,  number text  ); |
| person\_car(person, car\_model, car\_color). | **create table** person\_car (  person text,  car\_model text,  car\_color text  ); |
| model\_price(car\_model, car\_price). | **create table** model\_price (  car\_model text,  car\_price integer  ); |
| person\_bank(person, bank). | **create table** person\_bank (  person text,  bank text  ); |
| person\_address(person, address). | **create table** person\_address (  person text,  city text,  street text,  house integer,  flat integer  ); |
| number\_car(number, person, car\_model, car\_price).  person\_city\_street\_bank\_number(person, city, street, bank, number).  car\_person\_city\_number\_bank(car\_model, car\_color, person, city, number, bank). |  |

1. Заполнение

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| **clauses**  person\_number("Klimov", "89124214959").  person\_number("Ivanov", "89424412959").  person\_number("Klimov", "89414215521").  person\_number("Petrov", "89412451252"). | **insert into** person\_number(person, number) **values**('Klimov', '89124214959');  **insert into** person\_number(person, number) **values**('Ivanov', '89424412959');  **insert into** person\_number(person, number) **values**('Klimov', '89414215521');  **insert into** person\_number(person, number) **values**('Petrov', '89412451252'); |
| person\_car("Ivanov", "Audi", "Black").  person\_car("Klimov", "Nissan", "White").  person\_car("Petrov", "BMW", "Green").  person\_car("Klimov", "BMW", "Green"). | **insert into** person\_car(person, car\_model, car\_color) **values**('Ivanov', 'Audi', 'Black');  **insert into** person\_car(person, car\_model, car\_color) **values**('Klimov', 'Nissan', 'White');  **insert into** person\_car(person, car\_model, car\_color) **values**('Petrov', 'BMW', 'Green');  **insert into** person\_car(person, car\_model, car\_color) **values**('Klimov', 'BMW', 'Green'); |
| model\_price("BMW", 500000).  model\_price("Audi", 400000).  model\_price("Nissan", 200000). | **insert into** model\_price(car\_model, car\_price) **values**('BMW', 500000);  **insert into** model\_price(car\_model, car\_price) **values**('Audi', 400000);  **insert into** model\_price(car\_model, car\_price) **values**('Nissan', 200000); |
| person\_bank("Petrov", "Sber").  person\_bank("Klimov", "Tinkoff").  person\_bank("Klimov", "Alpha").  person\_bank("Ivanov", "Sber"). | **insert into** person\_bank(person, bank) **values**('Petrov', 'Sber');  **insert into** person\_bank(person, bank) **values**('Klimov', 'Tinkoff');  **insert into** person\_bank(person, bank) **values**('Klimov', 'Alpha');  **insert into** person\_bank(person, bank) **values**('Ivanov', 'Sber'); |
| person\_address("Klimov", address("Moscow", "Street\_1", 1, 12)).  person\_address("Ivanov", address("Moscow", "Street\_2", 2, 32)).  person\_address("Petrov", address("St.Peterburg", "Street\_3", 3, 42)).  person\_address("Klimov", address("St. Peterburg", "Street\_4", 4, 52)). | **insert into** person\_address(person, city, street, house, flat) **values**('Klimov', 'Moscow', 'Street\_1', 1, 12);  **insert into** person\_address(person, city, street, house, flat) **values**('Ivanov', 'Moscow', 'Street\_2', 2, 32);  **insert into** person\_address(person, city, street, house, flat) **values**('Petrov', 'St.Peterburg', 'Street\_3', 3, 42);  **insert into** person\_address(person, city, street, house, flat) **values**('Klimov', 'St.Peterburg', 'Street\_4', 4, 52); |
| number\_car(Number, Person, Car\_model, Car\_price) :- person\_number(Person, Number), person\_car(Person, Car\_model, \_), model\_price(Car\_model, Car\_price).  person\_city\_street\_bank\_number(Person, City, Street, Bank, Number) :- person\_address(Person, address(City, Street, \_, \_)), person\_bank(Person, Bank), person\_number(Person, Number).  car\_person\_city\_number\_bank(Model, Color, Person, City, Number, Bank) :-  person\_car(Person, Model, Color), person\_address(Person, address(City, \_, \_, \_)), person\_number(Person, Number), person\_bank(Person, Bank). |  |

1. Поиск

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| **goal**  number\_car("89124214959", Person, Model, Price). | **select** pn.person, pc.car\_model, mp.car\_price  **from** (**select** \* **from** person\_number  **where** **number** = '89124214959') pn  **join** person\_car pc **on** pn.person = pc.person  **join** model\_price mp **on** pc.car\_model = mp.car\_model; |
| number\_car("89424412959", \_, Model, \_). | **select** pc.car\_model  **from** (**select** \* **from** person\_number  **where** **number** = '89424412959') pn  **join** person\_car pc **on** pn.person = pc.person; |
| person\_city\_street\_bank\_number("Klimov", "Moscow", Street, Bank, Number). | **select** pa.street, pb.bank, pn.number  **from** (**select** person, street  **from** person\_address **where** person = 'Klimov' **and** city = 'Moscow') pa  **join** person\_bank pb **on** pa.person = pb.person  **join** person\_number pn **on** pa.person = pn.person; |
| car\_person\_city\_number\_bank("BMW", "Green", Person, City, Number, Bank). | **select** pc.person, pa.city, pn.number, pb.bank  **from** (**select** person **from** person\_car **where** car\_model = 'BMW' **and** car\_color = 'Green') pc  **join** person\_address pa **on** pc.person = pa.person  **join** person\_number pn **on** pc.person = pn.person  **join** person\_bank pb **on** pc.person = pb.person; |
| car\_person\_city\_number\_bank("Audi", "Black", Person, City, Number, Bank). | **select** pc.person, pa.city, pn.number, pb.bank  **from** (**select** person **from** person\_car **where** car\_model = 'Audi' **and** car\_color = 'Black') pc  **join** person\_address pa **on** pc.person = pa.person  **join** person\_number pn **on** pc.person = pn.person  **join** person\_bank pb **on** pc.person = pb.person; |
| car\_person\_city\_number\_bank("BMW", "White", Person, City, Number, Bank). | **select** pc.person, pa.city, pn.number, pb.bank  **from** (**select** person **from** person\_car **where** car\_model = 'BMW' **and** car\_color = 'White') pc  **join** person\_address pa **on** pc.person = pa.person  **join** person\_number pn **on** pc.person = pn.person  **join** person\_bank pb **on** pc.person = pb.person; |