

Таблица 1 – Сравнение реализаций на Visual Prolog и PostgreSQL

Задача	Реализация на Visual Prolog	Реализация на PostgreSQL
Описание типов	<pre>surname = string city, street = string house, flat = integer phone = string</pre>	НЕ ТРЕБУЕТСЯ
Описание типов	<pre>address = addr(city, street, house, flat)</pre>	<pre>CREATE TABLE addresses (     id SERIAL PRIMARY KEY     , city VARCHAR     , street VARCHAR     , house INTEGER     , flat INTEGER );</pre>
Описание типов	<pre>mark = string color = string price = integer bank = string id, amount = integer</pre>	НЕ ТРЕБУЕТСЯ
Описание предиката	<pre>person(surname, phone, address)</pre>	<pre>CREATE TABLE persons (     id SERIAL PRIMARY KEY     , surname VARCHAR     , phone VARCHAR     , addr_id SERIAL NOT NULL     , FOREIGN KEY (addr_id)       REFERENCES addresses(id)       ON DELETE CASCADE );</pre>
Продолжение на следующей странице		

Таблица 1 – продолжение

Задача	Реализация на Visual Prolog	Реализация на PostgreSQL
Описание предиката	<pre>car(surname, mark, color, price)</pre>	<pre>CREATE TABLE cars (   id SERIAL PRIMARY KEY   , mark VARCHAR   , color VARCHAR   , price DECIMAL   , owner_id SERIAL NOT NULL   , FOREIGN KEY (owner_id)     REFERENCES persons(id)   ON DELETE CASCADE );</pre>
Описание предиката	<pre>bank_depositor(surname, bank, id, amount)</pre>	<pre>CREATE TABLE bank_depositors (   id SERIAL PRIMARY KEY   , bank VARCHAR   , account_id INTEGER   , amount DECIMAL   , investor_id SERIAL NOT NULL   , FOREIGN KEY (investor_id)     REFERENCES persons(id)   ON DELETE CASCADE );</pre>
Описание предиката	<pre>man_by_car(mark, color, surname, city, phone, bank)</pre>	НЕ ТРЕБУЕТСЯ
Продолжение на следующей странице		

Таблица 1 – продолжение

Задача	Реализация на Visual Prolog	Реализация на PostgreSQL
Описание фактов	<pre> person("Andreev", "+799999999999",       addr("Moscow", "Lesnaya", 12, 2)). person("Borisov", "+711111111111",       addr("Moscow", "Lesnaya", 13, 87)). person("Dmitriev", "+733333333333",       addr("Ekaterinburg", "Kamennaya", 13, 87)). person("Fedorov", "+666666666666",       addr("Moscow", "Hospital'naya", 123, 87)). </pre>	<pre> INSERT INTO addresses(city, street, house, flat) VALUES ('Moscow', 'Lesnaya', 12, 2), ('Moscow', 'Lesnaya', 13, 87), ('Ekaterinburg', 'Kamennaya', 13, 87), ('Moscow', 'Hospital'naya', 123, 87);  INSERT INTO persons(surname, phone, addr_id) VALUES ('Andreev', '+799999999999', 1), ('Borisov', '+711111111111', 2), ('Dmitriev', '+733333333333', 3), ('Fedorov', '+666666666666', 4); </pre>
Описание фактов	<pre> car("Andreev", "bmw", "green", 1000). car("Andreev", "volkswagen", "red", 10000). car("Dmitriev", "lada", "black", 20000). car("Fedorov", "lada", "black", 20000). car("Fedorov", "opel", "white", 10). </pre>	<pre> INSERT INTO cars (mark, color, price, owner_id) VALUES ('bmw', 'green', 1000, 1), ('volkswagen', 'red', 10000, 1), ('lada', 'black', 20000, 3), ('lada', 'black', 20000, 4), ('opel', 'white', 10, 4); </pre>
Описание фактов	<pre> bank_depositor("Andreev", "Sber", 22, 1000). bank_depositor("Borisov", "Sber", 33, 10000). bank_depositor("Dmitriev", "Alfa", 44, 20000). bank_depositor("Fedorov", "Sber", 238, 10). bank_depositor("Borisov", "Maze", 1, 10000). </pre>	<pre> INSERT INTO bank_depositors (bank, account_id, amount, investor_id) VALUES ('Sber', 22, 1000, 1), ('Sber', 33, 10000, 2), ('Alfa', 44, 20000, 3), ('Sber', 238, 10, 4), ('Maze', 1, 10000, 2); </pre>
	Продолжение на следующей странице	

Таблица 1 – продолжение

Задача	Реализация на Visual Prolog	Реализация на PostgreSQL
Описание правила	<pre> man_by_car(Mark, Color, Surname, City, Phone, Bank) :-     car(Surname, Mark, Color, _),     person(Surname, Phone, addr(City, -, -, _)),     bank_depositor(Surname, Bank, -, _). </pre>	НЕ СУЩЕСТВУЕТ
Описание правила	<pre> car_by_phone(Phone, Surname, Mark, Price) :-     person(Surname, Phone, _),     car(Surname, Mark, -, Price). </pre>	НЕ СУЩЕСТВУЕТ
Описание правила	<pre> only_mark_by_phone(Phone, Mark) :-     car_by_phone(Phone, -, Mark, _). </pre>	НЕ СУЩЕСТВУЕТ
Задание вопроса	<pre> man_by_car("bmw", "green", Surname, City, Phone, Bank). </pre>	<pre> SELECT     mark, color, surname,     city, phone, bank, price FROM persons p JOIN (SELECT * FROM addresses) a ON p.addr_id = a.id JOIN (SELECT * FROM cars) c ON p.id = c.owner_id JOIN (SELECT * FROM bank_depositors) b ON p.id = b.investor_id WHERE mark = 'bmw' AND color = 'green'; </pre>
Задание вопроса	<pre> only_mark_by_phone("+79999999999", Mark) </pre>	<pre> SELECT mark FROM (     SELECT mark, phone FROM persons p     JOIN (SELECT * FROM addresses) a     ON p.addr_id = a.id     JOIN (SELECT * FROM cars) c     ON p.id = c.owner_id     JOIN (SELECT * FROM bank_depositors) b     ON p.id = b.investor_id ) c WHERE c.phone = '+79999999999'; </pre>
Конец таблицы		