## Код программы

domains

city, street = string.

house, flat = integer.

adress = adr(city, street, house, flat)

surname, tel = string.

university = string.

brand, color = string.

price = integer.

bank, account = string.

amount = integer.

predicates

student\_tel(surname, tel)

university(surname, university)

un\_sprav(university, tel)

student\_adress(surname, adress)

tel\_sprav(surname, tel, adress)

car(surname, brand, color, price)

bank\_depositor(surname, bank, account, amount)

car\_by\_tel(tel, surname, brand, price)

brand\_by\_tel(tel, brand)

person\_by\_city(surname, city, street, bank, tel)

person\_by\_car(brand, color, surname, city, tel, bank)

clauses

student\_tel("Pronin", "89167376051").

student\_tel("Pronin", "89167376052").

student\_tel("Lisnevsky", "89167376053").

student\_tel("Lisnevsky", "89167376054").

student\_tel("Klimov", "89167376055").

student\_tel("Klimov", "89167376056").

student\_tel("Alahov", "89167376057").

student\_tel("Alahov", "89167376058").

student\_tel("Trunov", "89167376050").

student\_tel("Trunov", "89167376059").

university("Pronin", "BMSTU").

university("Trunov", "BMSTU").

university("Klimov", "HSE").

university("Lisnevsky", "MIRAEA").

university("Alahov", "MIPT").

un\_sprav(U, T):-student\_tel(S, T),university(S, U).

student\_adress("Pronin", adr("Moscow", "Tverskaya", 1, 1)).

student\_adress("Lisnevsky", adr("Moscow", "Tverskaya", 1, 2)).

student\_adress("Klimov", adr("Moscow", "Tverskaya", 1, 3)).

student\_adress("Alahov", adr("Moscow", "Tverskaya", 1, 4)).

student\_adress("Trunov", adr("Moscow", "Tverskaya", 1, 5)).

tel\_sprav(S, T, A):-student\_tel(S, T),student\_adress(S, A).

car("Pronin", "Audi", "Black", 2000000).

car("Pronin", "BMW", "White", 2000000).

car("Pronin", "Ford", "Gray", 2000000).

car("Lisnevsky", "BMW", "Green", 3000000).

car("Klimov", "Ford", "Blue", 4000000).

car("Alahov", "BMW", "Red", 5000000).

car("Trunov", "Audi", "Violet", 7000000).

car("Pronin", "Audi", "Violet", 7000000).

bank\_depositor("Pronin", "SberBank", "40817810099910004312", 7000000).

bank\_depositor("Lisnevsky", "SberBank", "40817810099910004313", 4000000).

bank\_depositor("Klimov", "VTB", "40817810099910004314", 5000000).

bank\_depositor("Alahov", "VTB", "40817810099910004315", 6000000).

bank\_depositor("Trunov", "RosBank", "40817810099910004316", 7000000).

bank\_depositor("Trunov", "SberBank", "40817810099910004317", 7000000).

bank\_depositor("Trunov", "VTB", "40817810099910004318", 7000000).

car\_by\_tel(T, S, B, P):-student\_tel(S, T),car(S, B, \_, P).

brand\_by\_tel(T, B):-car\_by\_tel(T, \_, B, \_).

person\_by\_city(S, C, St, B, T):-tel\_sprav(S, T, adr(C, St, \_, \_)),

bank\_depositor(S, B, \_, \_).

person\_by\_car(Br, Col, S, City, T, Bank):-car(S, Br, Col, \_),

tel\_sprav(S, T, adr(City, \_, \_, \_)),

bank\_depositor(S, Bank, \_, \_).

goal

%PART 1

%tel\_sprav("Pronin", "89167376051", adr("Moscow", "Tverskaya", 1, 1)).

%tel\_sprav(X, Y, adr("Moscow", "Tverskaya", 1, Z)).

%car("Pronin", X, Y, Z).

%bank\_depositor("Trunov", X, Y, Z).

%car\_by\_tel("89167376051", X, Y, Z). %1a

%brand\_by\_tel("89167376051", X). %1b

%person\_by\_city("Pronin", "Moscow", X, Y, Z). %2

%PART 2

%person\_by\_car("Audi", "Violet", Surname, City, Telephone, Bank). %several owners

%person\_by\_car("Audi", "Black", Surname, City, Telephone, Bank). %one owner

person\_by\_car("Audi", "Green", Surname, City, Telephone, Bank). %no owners

## Задание 1

Для каждого из трех вариантов словесно подробно описать порядок формирования ответа (в виде таблицы). При у казать отметить моменты очередного запуска алгоритма унификации и полный результат его работы. Обосновать следующий шаг работы системы. Выписать унификаторы подстановки. Указать моменты, причины и результат отката, если он есть.