1. Masina – varianta simpla

Implementati o teorie care modeleaza proprietarii unor masini

1.1 Varianta cu string-uri

main.pro

```
implement main
  open core

  class facts - fapteMasini
    are : (string Nume, string Gen).

  clauses
    run():-
      console::init(),
      file::consult("..\\masini.txt", fapteMasini),

      stdIO::write("Lista masini:\n"),
      are(Persoana, Masina),
        stdIO::write(Persoana, " are masina ", Masina , "\n"),
      fail.

      run():-
       stdIO::write("\n-----------------------------\n"),
       stdIO::write("Lista celor cu Logan:\n"),
       are(Persoana, "Logan"),
         stdIO::write(Persoana, ", "),
       fail.

    run():-
        stdIO::write("\n-----------------------------\n").
end implement main

goal
   mainExe::run(main::run).
```

masini.txt
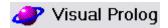
```
clauses
  are("Adrian","Logan").
  are("Cristian","Logan").
  are("Mihai","Ford").
  are("Dorel","Volkswagen").
  are("Dorel","Ford").
```

Rulare

```
Lista masini:
Adrian are masina Logan
Cristian are masina Logan
Mihai are masina Ford
Dorel are masina Volswagen
Dorel are masina Ford

-----------------------------
Lista celor cu Logan:
Adrian, Cristian,
-----------------------------
```

1.2 Varianta cu domenii

main.pro:

```
implement main
    open core

    domains
        tipMasina = logan(); ford(); volkswagen().

    class facts - fapteMasini
        are : (string Nume, tipMasina Masina).

    clauses
        run():-
            console::init(),
            file::consult("..\\masini.txt", fapteMasini),

            stdIO::write("Lista masini:\n"),
            are(Persoana, Masina),
                stdIO::write(Persoana, " are masina ",  Masina , "\n"),
            fail.

        run():-
            stdIO::write("\n-------------------------------\n"),
            stdIO::write("Lista celor cu Ford:\n"),
            are(Persoana, ford),
                stdIO::write(Persoana, ", "),
            fail.
        run():-
            stdIO::write("\n-------------------------------\n").
end implement main

goal
    mainExe::run(main::run).
```

masini.txt:

```
clauses
    are("Adrian", logan).
    are("Cristian", logan).
    are("Mihai", ford).
    are("Dorel", volkswagen).
    are("Dorel", ford).
```
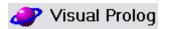
Rulare:

2. Utilizarea structurilor compuse
2.2 Teoria cu masini utilizand tipuri compuse

main.pro:

```
implement main
    open core

    domains
        tipMasina = logan(); ford(); volkswagen().
        infoMasina = infoMasina(tipMasina Tip, integer An, integer Pret ).

    class facts - fapteMasini
        are : (string Nume, infoMasina InfoMasina).

    clauses
        run():-
            console::init(),
            file::consult("..\\masini.txt", fapteMasini),
            fail.

        run():-
            stdIO::write(" ---------- Posesorii de logan ------------- \n"),
            are(X, infoMasina(logan(),_,_)),
                stdIO::writef("% are Logan \n", X),
            fail.

        run():-
            stdIO::write(" ---------- Posesorii de masini ------------- \n"),
            are(X, infoMasina(_,_,_)),
                stdIO::writef("% are masina \n", X),
            fail.
```

```
run():-
    stdIO::write(" ---------- Ce are Dorel ------------- \n"),
    are("Dorel", X),
        stdIO::writef("Dorel are masina % \n", X),
    fail.

run():-
    stdIO::write(" ---------- Ce are Dorel ------------- \n"),
    are("Dorel", infoMasina(Tip,_,_)),
        stdIO::writef("Dorel are masina % \n", Tip),
    fail.

run():-
    stdIO::write(" ---------- Masini scumpe ------------- \n"),
    are(X, infoMasina(_,_,Pret)),
        Pret > 2000,
        stdIO::writef("% are masina cu pretul % \n", X, Pret),

    fail.

    run():-
        stdIO::write("\n-------------------------------\n").
end implement main

goal
    mainExe::run(main::run).
```

masini.txt:

```
clauses
    are("Adrian",InfoMasina(logan(),2007,1600)).
    are("Cristian",InfoMasina(ford(),2000,1200)).
    are("Mihai",InfoMasina(ford(),2013,6300)).
    are("Dorel",InfoMasina(logan(),2011,1900)).
    are("Dorel",InfoMasina(volkswagen(),2014,8900)).
```

Rulare

```
---------- Posesorii de logan --------------
Adrian are Logan
Dorel are Logan
 ---------- Posesorii de masini --------------
Adrian are masina
Cristian are masina
Mihai are masina
Dorel are masina
Dorel are masina
 ---------- Ce are Dorel --------------
Dorel are masina infoMasina(logan,2011,1900)
Dorel are masina infoMasina(volswagen,2014,8900)
 ---------- Ce are Dorel --------------
Dorel are masina logan
Dorel are masina volswagen
 ---------- Masini scumpe --------------
Mihai are masina cu pretul 6300
Dorel are masina cu pretul 8900
```