**Lab 3 – Prolog 2**

Problem:

**A heterogeneous list is given (contains atoms, numbers and simple-sublists).**
**Delete all strictly ascending sequences from each sublist and display the transformed list.**

Eg.

prelucreaza([[1, 2, 4, 4, 7, 9, 0, 1, 1], 3,[], 24, [], a, [12, 4], [3, 5], b],R).

R = [[1], 3, [], 24, [], a, [12, 4], [], b]

```
% eliminaCresc(L:list, R:list)
% model de flux: (i,o) sau (i,i)
% L - lista din care eliminam secventele
% R - lista rezultat
eliminaCresc([], []).
eliminaCresc([H], [H]).
eliminaCresc([H1,H2], []):- H1 < H2.
eliminaCresc([H1,H2,H3|T], R):-
            H1 < H2,
            H2 < H3,
            eliminaCresc([H2,H3|T], R).
eliminaCresc([H1,H2,H3|T], R):-
            H1 < H2,
            H2 >= H3,
            eliminaCresc([H3|T], R).
eliminaCresc([H1,H2|T], [H1|R]):-
            H1 >= H2,
            eliminaCresc([H2|T], R).
```

prelucrează$(l_1, l_2, l_3 \dots l_n)$ =

$\phi$, $n = 0$

$l_1 \cup$ prelucrează$(l_2 \dots l_n)$, $l_1$ is number

$l_1 \cup$ prelucrează$(l_2 \dots l_n)$, $l_1$ is atom

dimCrsc$(l_1) \cup$ prelucrează$(l_2 \dots l_n)$, $l_1$ is sublist

LR

- is_list(H) – returneaza True daca H este o lista
- number(H) – returneaza True daca H este un numar
- atom(H) – returneaza True daca H este un atom (simbol).

```
%prelucreaza(L: lista, LR: list)
%L - lista eterogena initiala
%LR - lista rezultat
%model de flux (i, o), (i, i)

prelucreaza([], []).
prelucreaza([H|T], [H|LR]):-
        number(H),
        prelucreaza(T, LR).

prelucreaza([H|T], [H|LR]):-
        atom(H),
        prelucreaza(T, LR).

prelucreaza([H|T], [H1|LR]):-
        is_list(H),
        eliminaCresc(H, H1),
        prelucreaza(T, LR).
```