**CS 520 Prolog assignment #1 Fall 2015**

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Script started on Thu Oct 15 03:16:05 2015

> cat text.nl

text([],[]).

text([H|T],[P|Q]):-number(H),P=number,text(T,Q).

text([H|T],[P|Q]):-not number(H),P=H,text(T,Q).

> np

NU-Prolog 1.3

1?- consult(text).

true.

2?- text([a,13,b(5),[1,2],0],X).

X = [a, number, b(5), [1, 2], number].

3?- text([10,[[2]],b,8,c(5)],X).

X = [number, [[2]], b, number, c(5)].

4?- text([0,[1,[2,[3]]]],X).

X = [number, [1, [2, [3]]]].

5?- text([[[a]],[2,[a]],19,99],X).

X = [[[a]], [2, [a]], number, number].

6?- text([9,10,[2],[13,14]],X).

X = [number, number, [2], [13, 14]].

7?- exit(0).

>

> cat deeptext.nl

deeptext([],[]).

deeptext([H|T],[P|Q]):-isList(H),deeptext(H,P),deeptext(T,Q).

deeptext([H|T],[P|Q]):-number(H),P=number,deeptext(T,Q).

deeptext([H|T],[P|Q]):-not isList(H),not number(H),P=H,deeptext(T,Q).

> np

NU-Prolog 1.3

1?- consult(deeptext).

true.

2?- deeptext([1,[2,[3]],b,f(0)],X).

X = [number, [number, [number]], b, f(0)] .

3?- deeptext([3,[6,[9,[12,b,[c,0]],a],1]],X).

X = [number, [number, [number, [number, b, [c, number]], a], number]].

4?- deeptext([1,2,[3,g(0),-1],a],X).

X = [number, number, [number, g(0), number], a].

5?- deeptext([1,a,-1,h(100),x],X).

X = [number, a, number, h(100), x].

6?- deeptext([x,[y,[z,1]]],X).

X = [x, [y, [z, number]]].

7?- exit(0).

>

> cat addproblema.nl

addproblema([],[]).

addproblema([H|T],[P,Q1|Q2]):-atom(H),P=problema,Q1=H,addproblema(T,Q2).

addproblema([H|T],[P|Q]):-not atom(H),P=H,addproblema(T,Q).

> np

NU-Prolog 1.3

1?- consult(addproblema).

true.

2?- addproblema([si,no,8,see],X).

X = [problema, si, problema, no, 8, problema, see].

3?- addproblema([a,0,xyz,100],X).

X = [problema, a, 0, problema, xyz, 100].

4?- addproblema([atom,bomb,1],X).

X = [problema, atom, problema, bomb, 1].

5?- addproblema([1,2,3,4,5],X).

X = [1, 2, 3, 4, 5].

6?- addproblema([a],X).

X = [problema, a].

7?- exit(0).

>

> cat initconcat.nl

initconcat(X,Y,A):-name(X,L),name(Y,M),combine(L,M,A).

combine([H1|\_],[H2|\_],A):-name(A,[H1,H2]).

> np

NU-Prolog 1.3

1?- consult(initconcat).

true.

2?- initconcat(dhruv,shah,A).

A = ds.

3?- initconcat(joe,student,A).

A = js.

4?- initconcat(north,carolina,A).

A = nc.

5?- initconcat(los,angeles,A).

A = la.

6?- initconcat(san,diego,A).

A = sd.

7?- exit(0).

>

> ^D^H^Hexit

script done on Thu Oct 15 03:26:16 2015