program 3p46;

type

adresacandidatc = ^candidat;

candidat = record

numeprenume: string;

notamedie: real;

urm: ac;

end;

var p,c,u,g:ac;

procedure creare;

var c,u:adresacandidat; s:string;

begin

writeln('dati lista de elevi si nota lor medie');readln(s);

while s<>'end' do

begin

new(c); c^.numeprenume:=s; readln(c^.notamedie); c^.urm:=nil;

if p=nil then p:=c else u^.urm:=c;u:=c;

readln(s);

end;

end;

procedure afisare;

begin

writeln('lista curenta');

c:=p;

while c<>nil do

begin

writeln(c^.numeprenume,':',c^.nm);

c:=c^.urm;

end;

end;

procedure exclude;

label 1;

var q:adresacandidat; cheie: string;

begin

writeln('introduceti numele elveului ce urmeaza sa fie exclus');

readln(cheie);

c:=p;q:=c;

while c<>nil do begin

if c^.np=cheie then goto 1;

q:=c; c:=c^.urm;

end;

1: if c=nil then writeln('element inexistent')

else begin if c=p then p:=c^.urm

else q^.urm:=c^.urm;

dispose(c);

end;

end;

procedure includ;

label 1;

var q:adresacandidat; cheie: string;

begin

new(q);writeln('dati datele elevului ce urmeaza sa fie inclus');

readln(q^.np);readln(q^.notamedie);

writeln('indicati dupa ce persoana se face includerea');

readln(cheie);

c:=p;

while c<>nil do

begin

if c^.numeprenume=cheie then go to 1;

c:=c^.urm;

end;

1:if c=nil then begin

writeln('element inexistent');

dispose(q);

end

else begin

q^.urm:=c^.urm;

c^.urm:=q;

end;

end;

procedure afis7.5;

begin

writeln('persoanele cu media mai mare ca 7,5');

c:=p;

while c<>nil do

begin

if c^.notamedie>=7.5 then writeln(c^.numeprenume,':',c^.notamedie);

c:=c^.urm;

end;

end;

procedure lista9;

var q:adresacandidat;

begin

g:=nil;c:=p;

while c<>nil do begin

if c^.notamedie>=9.0 then begin

new(q); q^.numeprenume:=c^.np;

q^.notamedie:=c^.notamedie; q^.urm:=nil;

if g=nil then begin

g:=q; u:=q; end

else begin

u^.urm:=q; u:=q; end;

end;

c:=c^.urm;

end;

end;

procedure exclud6;

var q:adresacandidat;

begin

writeln('se exclud persoanele cu media mai mica ca 6.0');

c:=p;q:=c;

while c<>nil do begin

if c^.notamedie<6 then

if c=p then begin p:=c^.urm; u:=p; dispose(c);c:=u; end

else begin u^.urm:=c^.urm; dispose(c);c:=u^.urm; end

else begin u:=c; c:=c^.urm; end;

end;

end;

begin

creare;

exclude; afisare;

include; afisare;

afis7.5;

lista9;

exclude6; afisare;

end.

//ex4 p 46 b

program PrelucrareLista;

type

AdresaCandidat = ^Candidat;

Candidat = record

Numeprenume: string;

notamedia: real;

Urm: AdresaCandidat;

end;

var

n,n2,i2, i: integer;

p, r, v, u, p2, r2, u2: AdresaCandidat;

procedure citire;

var

i: integer;

begin

write('n='); readln(n);

new(r);

writeln('introdu nume si nota'); readln(r^.numeprenume); readln(r^.notamedia);

r^.urm := nil;

p := r;

u := r;

for i := 2 to n do

begin

new(r);

writeln('introdu nume si nota'); readln(r^.numeprenume); readln(r^.notamedia);

r^.urm := nil;

u^.urm := r;

u := r;

end;

end;

procedure citire2;

var

i2: integer;

begin

write('n='); readln(n2);

new(r2);

writeln('introdu nume si nota'); readln(r2^.numeprenume); readln(r2^.notamedia);

r2^.urm := nil;

p2 := r2;

u2 := r2;

for i2 := 2 to n2 do

begin

new(r);

writeln('introdu nume si nota'); readln(r2^.numeprenume); readln(r2^.notamedia);

r2^.urm := nil;

u2^.urm := r2;

u2 := r2;

end;

end;

procedure afisare;

begin

r := p;

while r <> nil do

begin

writeln(r^.numeprenume, ' ', r^.notamedia, ' ');

r := r^.urm;

end;

end;

procedure afisare2;

begin

r2 := p2;

while r2 <> nil do

begin

writeln(r2^.numeprenume, ' ', r2^.notamedia, ' ');

r2 := r2^.urm;

end;

end;

procedure concatenare;

begin

new(R); r^.numeprenume:=r2^.numeprenume; r^.notamedia:=r2^.notamedia;

r^.urm:=p; P:=R;

end;

begin

writeln('lista 1');

citire;

writeln('lista 2');

citire2;

writeln('afisare lista 1');

afisare;

writeln(' afisare lista 2');

afisare2;

concatenare;

writeln('lista concatenata');

afisare;

end.

//ex4 p 46 c

program PrelucrareLista;

type AdresaCandidat=^Candidat;

Candidat=record

Numeprenume :string;

notamedia :real;

Urm :AdresaCandidat;

end;

var n,i:integer;

p,r,v,u : AdresaCandidat;

procedure citire;

var i:integer;

begin

write('n='); readln(n);

new(r);

writeln('introdu nume si nota'); readln(r^.numeprenume); readln(r^.notamedia);

r^.urm:=nil;

p:=r;

u:=r;

for i:=2 to n do begin

new(r);

writeln('introdu nume si nota'); readln(r^.numeprenume); readln(r^.notamedia);

r^.urm:=nil;

u^.urm:=r;

u:=r;

end;

end;

procedure afisare;

begin

r:=p ;

while r<>nil do begin

writeln(r^.numeprenume,' ', r^.notamedia, ' ');

r:=r^.urm;

end;

end;

procedure afisare2;

begin

r:=v ;

while r<>nil do begin

write(r^.numeprenume,' ', r^.notamedia);

r:=r^.urm;

end;

end;

procedure cei\_cu\_5(var p,u:AdresaCandidat);

var q: AdresaCandidat;

begin u:=nil; r:=p;

while r<>nil do

begin if r^.notamedia>=5.0

then begin new(q); q^.numeprenume:=r^.numeprenume;

q^.notamedia:=r^.notamedia; q^.urm:=nil;

if u=nil then begin u:=q; v:=q; end

else begin v^.urm:=q; v:=q; end;

end;

r:=r^.urm;

end;

end;

procedure exclude;

begin r:=p; v:=r;

while r<>nil do

begin if r^.notamedia<5.0

then if P=r then begin P:=r^.urm; v:=p; dispose (r);r:=v; end

else begin v^.urm:=r^.urm; dispose (r);r:=v^.urm; end

else begin v:=r; r:=r^.urm; end;

end;

end;

begin

citire; writeln('lista initiala')

afisare; writeln('lista modificata 1:');

cei\_cu\_5(p,u);

exclude;

afisare; writeln('lista modificata 2:');

afisare2;

end.

//ex4 p 46 d

program PrelucrareLista;

type AdresaCandidat=^Candidat;

Candidat=record

Numeprenume :string;

notamedia :real;

Urm :AdresaCandidat;

end;

var n,i:integer;

p,r,v,u : AdresaCandidat;

procedure citire;

var i:integer;

begin

write('n='); readln(n);

new(r);

writeln('introdu nume si nota'); readln(r^.numeprenume); readln(r^.notamedia);

r^.urm:=nil;

p:=r;

u:=r;

for i:=2 to n do begin

new(r);

writeln('introdu nume si nota'); readln(r^.numeprenume); readln(r^.notamedia);

r^.urm:=nil;

u^.urm:=r;

u:=r;

end;

end;

procedure afisare;

begin

r:=p ;

while r<>nil do begin

writeln(r^.numeprenume,' ', r^.notamedia, ' ');

r:=r^.urm;

end;

end;

procedure afisare2;

begin

r:=v ;

while r<>nil do begin

write(r^.numeprenume,' ', r^.notamedia);

r:=r^.urm;

end;

end;

procedure cei\_cu\_5(var p,u:AdresaCandidat);

var q: AdresaCandidat;

begin u:=nil; r:=p;

while r<>nil do

begin if r^.notamedia>=5.0

then begin new(q); q^.numeprenume:=r^.numeprenume;

q^.notamedia:=r^.notamedia; q^.urm:=nil;

if u=nil then begin u:=q; v:=q; end

else begin v^.urm:=q; v:=q; end;

end;

r:=r^.urm;

end;

end;

begin

citire;

writeln('lista initiala'); afisare;

writeln('elem selectate'); cei\_cu\_5(p,u);

afisare2;

end.