```
type
adresacandidat = ^candidat;
candidat = record
numeprenume: string;
notamed: real;
urm: adresacandidat;
end;
var p,c,u,g:adresacandidat;

procedure creare;
var c,u:ac; s:string;
begin
writeln('Lista de elevi si nota medie: (Pentru a finisa lista introduceti "end")');readln(s);
while s<>'end' do
begin
 new(c); c^.numeprenume:=s; readln(c^.numeprenume); c^.urm:=nil;
 if p=nil then p:=c else u^.urm:=c;u:=c;
 readln(s);
 end;
 end;

 procedure afisare;
 begin
 writeln('Lista actuala este:');
 c:=p;
 while c<>nil do
 begin
 writeln(c^.numeprenume,' :',c^.notamed);
 c:=c^.urm;
 end;
 end;

 procedure excludere;
 label 1;
 var q:ac; 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^.numeprenume=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 includere;
 label 1;
 var q:ac; cheie: string;
 begin
 new(q);writeln('Dati datele elevului ce urmeaza sa fie inclus');
 readln(q^.numeprenume);readln(q^.notamed);
 writeln('Indicati dupa ce persoana face includerea');
 readln(cheie);
 c:=p;
 while c<>nil do
 begin
 if c^.numeprenume=cheie then goto 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 medmm7_5;
 begin
 writeln('Persoanele cu media mai mare ca 7,5');
 c:=p;
 while c<>nil do
 begin
 if c^.notamed>=7.5 then writeln(c^.numeprenume,':',c^.notamed);
 c:=c^.urm;
 end;
 end;

 procedure med9;
 var q:adresacandidat;
 begin
 g:=nil;c:=p;
 while c<>nil do begin
 if c^.notamed>=9.0 then begin
 new(q); q^.numeprenume:=c^.numeprenume;
 q^.notamed:=c^.notamed; 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 excluderecc6;
var q:ac;
begin
writeln('Se exclud persoanele cu media mai mica decat 6.0');
c:=p;q:=c;
while c<>nil do begin
if c^.notamed<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;
 excludere;afisare;
 includere;afisare;
 medmm7_5;
 med9;
 excluderecc6;afisare;
 end.
```

```
Program Ex_4b;
type AdresaElev=^Elev;
Elev=record
NumePrenume:string;
Urm:AdresaElev;
end;
var p,c,l:AdresaElev;
n,m:integer;
Nume:string;
procedure creare1;
var i:integer;
u:AdresaElev;
begin
write('n='); readln(n);
writeln('Dati numele din lista');
new(c);
readln(c^.NumePrenume);
c^.Urm:=nil;
p:=c; u:=c;
for i:=2 to n do begin
new(c);
readln(c^.NumePrenume);
c^.Urm:=nil;
u^.Urm:=c;
u:=c;
```

```
end;
end;
procedure creare2;
var i:integer;
u:AdresaElev;
begin
write('m='); readln(m);
writeln('Dati numele din lista');
new(c);
readln(c^.NumePrenume);
c^.Urm:=nil;
l:=c; u:=c;
for i:=2 to m do begin
new(c);
readln(c^.NumePrenume);
c^.Urm:=nil;
u^.Urm:=c;
u:=c;
end;
end;
procedure afisare(q:AdresaElev);
begin
writeln('Lista:');
c:=q;
while c<>nil do begin
writeln(c^.NumePrenume);
c:=c^.Urm;
end;
end;
procedure concatenare;
begin
c:=p;
while c^.urm<>nil do
c:=c^.urm;
```

```
c^.urm:=l;
end;
begin
creare1; afisare(p); creare2; afisare(l); concatenare; afisare(p);
end.
```

```
Program Ex_4c;
type AdresaElev=^Elev;
Elev=record
NumePrenume:string;
Urm:AdresaElev;
end;
var p,c,l:AdresaElev;
n,m:integer;
Nume:string;
procedure creare;
var i:integer;
u:AdresaElev;
begin
write('n='); readln(n);
writeln('Dati numele din lista');
new(c);
readln(c^.NumePrenume);
c^.Urm:=nil;
p:=c; u:=c;
for i:=2 to n do begin
new(c);
readln(c^.NumePrenume);
c^.Urm:=nil;
u^.Urm:=c;
u:=c;
end;
end;
procedure afisare(q:AdresaElev);
```

```
begin
writeln('Lista:');
c:=q;
while c<>nil do begin
writeln(c^.NumePrenume);
c:=c^.Urm;
end;
end;
procedure descompunere;
label 1;
begin
c:=p;
writeln('Dati ultimul nume din prima lista');
readln(Nume);
while c<>nil do
begin
if c^.NumePrenume=Nume then goto 1;
c:=c^.Urm;
end;
1:if c=nil then begin
writeln('Nu exista numele'); dispose(p); end
else begin
l:=c^.urm;
c^.urm:=nil;
end;
end;
begin
creare; afisare(p); descompunere; afisare(p); afisare(l);
end.
```

```
program Ex_4d;

type
  AdresaCandidat = ^Candidat;
  Candidat = record
    NumePrenume: string;
    NotaMedie: real;
    Urm: AdresaCandidat;
  end;

var
  p, c, u, p1: AdresaCandidat;
  n: integer;

procedure creare;
var
  i: integer;
begin
  write('n=');readln(n);
  new(c);
  readln(c^.NumePrenume);
  readln(c^.NotaMedie);
  c^.Urm := nil;
  p := c;u := c;
  for i := 2 to n do
  begin
    new(c);
    readln(c^.NumePrenume);
    readln(c^.NotaMedie);
    c^.Urm := nil;
    u^.Urm := c;
    u := c;
  end;
end;
```

```
procedure afisare;
begin
  c := p;
  while c <> nil do
  begin
    writeln(c^.NumePrenume);
    writeln(c^.NotaMedie);
    c := c^.Urm;
  end;
end;

procedure selectare;
begin
c:=p;
writeln('Elevii ai caror nume incepe cu C:');
while c<>nil do begin
if c^.NumePrenume [1]='C' then writeln(c^.NumePrenume);
c:=c^.urm;
end;
end;

begin
creare; afisare; selectare;
end.
```