

CORRECTION 2018

Sujet 1

```
program collection;
uses wincrt;
type tab=array[1..50] of string;
var
p:tab;
c:integer;

function verife(ch:string):boolean;
var
i:integer;
test:boolean;
begin
i:=0;
repeat
i:=i+1;
if ch[i] in ['A'..'Z','a'..'z']then test:=true
else test:=false;
until (test=false) or (i=length (ch));
verife:=test;
end;

function recherche(ch:string;t:tab;k:integer):boolean;
var i:integer; test:boolean;
begin
i:=0;
repeat
i:=i+1;
if t[i]=ch then test:=true
else test:= false;
until (test=true) or (i=k);
recherche:=test;
end;

procedure saisie_distinct(var p:tab;var c:integer);
var i:integer;
pers:string;
begin
repeat
write('Donner le nom du personnage n° ',1,' : ');
readln(p[1]);
until (verife(p[1])) and (p[1,1] in ['A'..'Z'])and(length(p[1])>=1);
c:=1;
i:=1;
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repeat
i:=i+1;
repeat
write('Donner le nom du personnage n° ',i,' '); readln(pers);
until (verife(pers)) ;
if recherche(pers,p,c)=false then
begin
c:=c+1;
p[c]:=pers;
end;
until (c=20) or (i=50);
if c=20 then
writeln('Vous avez gagne')
else writeln('Vous avez perdu');
end;

begin
saisie_distinct(p,c);
end.

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Sujet 2

```

program achat;
uses wincrt;
type tab=array[1..100] of string;
var
n:integer;
t:tab;
procedure saisie(var n:integer);
begin
repeat
write('n=');
readln(n);
until n in [5..100] ;
end;

function verife(ch:string):boolean;
var
i:integer;
test:boolean;
begin
i:=0;
repeat
i:=i+1;
if ch[i] in ['A'..'Z','a'..'z','0'..'9',' ']then test:=true
else test:=false;
until (test=false) or (i=length (ch));
verife:=test;
end;
function occurence(ch:string;t:tab; n:integer) :integer;

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var
i,occ :integer;
begin
occ:=0;
for i:=1 to n do
if t[i]=ch then occ:=occ+1;
occurence:=occ;
end;

procedure affiche(var t:tab;n:integer);
var
nbp,i:integer;
nomp:string;
begin
nbp:=0;
for i:= 1 to n do
begin
repeat
write('Donner le nom du produit: ');
readln(nomp);
until (verife(nomp)) and (length(nomp)<=20);
t[i]:= nomp;
if (pos('ECOLO',t[i])<>0) and( occurence(T[i],t,n)=1)then nbp:=nbp+1;
end;
if nbp=0 then writeln('Veuillez consommer ce produit svp ')
else if nbp=1 then writeln('Merci d"avoir essaye notre produit ')
else if nbp>=5 then writeln('Veuillez accepter de devenir notre ambassadeur pour ce produit');
end;

begin
saisie(n);
affiche(t,n);
end.

```

Sujet 3

```

program bonus;
uses wincrt;
type tab=array[1..100] of longint;
var
t,c:tab;
n:integer;
procedure saisie(var n:integer);
begin
repeat
write('n=');
readln(n);
until n in [7..100] ;
end;

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function valide(x:longint):boolean;
var ch:string;
begin
str(x,ch);
valide :=((copy(ch,1,2)='65')or(copy(ch,1,2)='66'))and(length(ch)=8);
end;
function verif(t:tab;k:integer):boolean;
var i:integer; test:boolean;
begin
i:=0;
repeat
i:=i+1;
if t[i]=t[k] then test:=false
else test:= true;
until (test=false) or (i=k-1);
verif:=test;
end;

procedure saisie_distinct(var t,c:tab;var n:integer);
var i:integer;
begin
repeat
write('Donner le numero de tel du premier client '); readln(t[1]);
until valide(t[1]);
repeat
write('Donner le montant consomme par le premier client '); readln(c[1]);
until c[1]>=0;
for i:=2 to n do
begin
repeat
write('Donner le numero de tel du client n° ',i,' '); readln(t[i]);
until verif(t,i)=true;
repeat
write('Donner le montant consomme par le client n° ',i,' '); readln(c[i]);
until c[i]>=0;
end;
end;
function sommechiffres(a:longint):integer;
var
i,s,e,x:integer;
ch:string;
begin
str(a,ch);
s:=0;
for i:=3 to 8 do
begin
val(ch[i],x,e);
s:=s+x;
end;
sommechiffres:=s;
end;
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procedure affiche (t,c:tab;n:integer);
var
i,s:integer;
moy:real;
begin
    s:=0;
for i:=1 to n do
s:=s+c[i];
moy:=s/n;
writeln('Le Montant moyen des consommations est: ',moy);
for i:=1 to n do
if c[i]>=moy then
writeln('Le numero ',t[i],' a gagne ',sommechiffres(t[i])*20,' DT');
end;

begin
    saisie(n);
saisie_distinct(t,c,n);
affiche(t,c,n);
end.

```

Sujet 4

```

program QCU;
uses wincrt;
type
tab=array[1..10] of string;
var
q,r:tab;
n:integer;
procedure saisie(var n:integer);
begin
repeat
write('n=');
readln(n);
until n in [5..10] ;
end;
function verif(ch:string):boolean;
var
i:integer;
test:boolean;
begin
i:=0;
repeat
i:=i+1;
if ch[i] in ['A'..'Z','a'..'z']then test:=true
else test:=false;
until (test=false) or (i=length (ch));
verif:=test;
end;

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procedure convmaj(var ch:string);
var
i:integer;
begin
  for i:=1 to length(ch) do
    ch[i]:=uppercase(ch[i]);
end;
procedure remplir(var q:tab; n:integer);
var i:integer;
question,reponse:string;
begin
  for i:=1 to n do
    begin
      repeat
        write('Donner la proposition relative a la question n° ',i,' ');
        readln(question);
      until (verif(question)) and (question[1]in ['A'..'Z'])and(length(question)>=4);
      repeat
        write('Donner la validation de la proposition n° ');
        readln(reponse);
        convmaj(reponse);
      until (reponse='VRAI') or (reponse='FAUX');
      q[i]:=question+'#'+reponse;
    end;
  end;
procedure remplir2(var r:tab; n:integer);
var i:integer;
begin
  for i:=1 to n do
    repeat
      write('Donner votre reponse a la question n° ',i,' ');
      readln(r[i]);
      convmaj(r[i]);
    until (r[i]='VRAI') or (r[i]='FAUX');
  end;
procedure affiche (q,r:tab;n:integer);
var
np,i:integer;
moy:real;
begin
  np:=0;
  for i:=1 to n do
    if r[i]=copy(q[i],pos('#',q[i])+1,length(q[i])-pos('#',q[i])) then
      np:=np+1;
    writeln('le nombre de points obtenu est : ',np);
    writeln('le taux de reussite est : ',np/N*100:0:2, '%');
  end;
begin

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```
saisie(n);
remplir(q,n);
remplir2(r,n);
writeln;
writeln('Le programme affiche :');
affiche(q,r,n);
end.
```

Sujet 5

```
program diagnostiques;
uses wincrt;
type
tab=array[1..100] of string;
var
m,s:tab;
sym:string;
n:integer;
procedure saisien(var n:integer);
begin
repeat
write('n=:');
readln(n);
until n in [3..100] ;
end;
function alpha(ch:string):boolean;
var
i:integer;
test:boolean;
begin
i:=0;
repeat
i:=i+1;
if ch[i] in ['A'..'Z',' ']then test:=true
else test:=false;
until (test=false) or (i=length (ch));
alpha:=test;
end;
function former(ns:integer):string;
var
i:integer;
symp,ch:string;
begin
ch:="";
for i:=1 to ns do
begin
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        write('saisir un symptome ');
        readln(symp);
ch:=ch+symp+'#';
end;
delete(ch,length(ch),1);
former:=ch;
end;

procedure saisie(var ch:string);
var
ns:integer;
begin
    writeln('Donner les symptomes correspondants: ');
    repeat
        write('Combien de symptomes ? ');
        readln(ns);
        until ns>0;
        ch:=former(ns);
        writeln(ch);
    end;
procedure remplir(var m,s:tab; n:integer);
var i:integer;
begin
    for i:=1 to n do
    begin
        repeat
write('Donner la maladie n° ',i,' ');
        readln(m[i]);
        until (alpha(M[i])) ;
        saisie(s[i]);
    end;
end;

procedure affiche (m,s:tab;n:integer;varsym:string);
var
i:integer;
begin
repeat
write('SYMPTOME EN QUESTION: ');
        readln(sym);
        until (alpha(sym)) ;
        write('Les maladies probables sont : ');
        for i:= 1 to n do
        if pos(sym,s[i])<>0 then write(m[i],' ');
    end;
begin
    saisien(n);
    remplir(m,s,n);

```

```
writeln;
writeln('Le programme affiche :');
affiche(m,s,n,sym);
end.
```

Soussi/Ezzeddine