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unit Unit1;      |

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, Grids, StdCtrls;

type
  TForm1 = class(TForm)
    Label1: TLabel;
    edtNbreEq: TEdit;
    btnMatches: TButton;
    lblMatches: TLabel;
    sgMatches: TStringGrid;
    btnStart: TButton;
    btnWinner: TButton;
    lblWinner: TLabel;
    btnFinal: TButton;
    sgTfinal: TStringGrid;
    procedure btnMatchesClick(Sender: TObject);
    procedure btnStartClick(Sender: TObject);
    procedure btnFinalClick(Sender: TObject);
    procedure btnWinnerClick(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form1: TForm1;

implementation

{$R *.dfm}

procedure IniMatches(table: TStringgrid; n: integer);
var i, j: integer;
begin
  table.ColCount:=n+1;
  table.RowCount:=n+1;
  table.Cells[0,0]:='matches';
  for i:=1 to n do
    begin
      table.ColWidths[i]:=40;
      table.Cells[i,0]:=inttostr(i);
      table.Cells[0,i]:=inttostr(i) + ' contre';
    end;
  for i:=1 to n do
    for j:= 1 to n do
      table.Cells[i, j]:='';
  for i:=1 to n do
    for j:= i to n do
      table.Cells[i, j]:='////';
end;
end;

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procedure IniTfinal( table: TStringgrid; n: integer);
var i,j: integer;
begin
    table.ColWidths[2]:=115;
    table.RowCount:=n+1;
    for i:=1 to 2 do
        for j:=1 to n do
            table.Cells[i,j]:='0';
    table.Cells[0,0]:='quipes';
    table.Cells[1,0]:='points';
    table.Cells[2,0]:='buts marqu s';
    for i:=1 to n do table.Cells[0,i]:=inttostr(i);
end;

procedure analyze(tableA, tableB: TStringgrid; n: integer);
var i, j: integer;
begin
    for j:=1 to n do
        for i:=1 to n do
            if (TableA.Cells[i,j][1]='5') then
                TableB.Cells[1,j]:=inttostr(strtoint(TableB.Cells[1,j])+3)
            else if (TableA.Cells[i,j][3]='5') then
                TableB.Cells[1,i]:=inttostr(strtoint(TableB.Cells[1,i])+3);
    for j:=1 to n do
        for i:=j+1 to n do
            begin
                TableB.Cells[2,j]:=inttostr(strtoint(TableB.Cells[2,j])+
                    strtoint(tableA.Cells[i,j][1]));
                TableB.Cells[2,i]:=inttostr(strtoint(TableB.Cells[2,i])+
                    strtoint(tableA.Cells[i,j][3]));
            end;
    end;
end;

procedure TForm1.btnMatchesClick(Sender: TObject);
var n: integer;
begin
    n:=strtoint(edtNbreEq.Text);
    lblMatches.Caption:=inttostr(n*(n-1) div 2);
end;

procedure TForm1.btnMatchesClick(Sender: TObject);
var n: integer;
begin
    n:=strtoint(edtNbreEq.Text);
    lblMatches.Caption:=inttostr(n*(n-1) div 2);
end;

procedure TForm1.btnStartClick(Sender: TObject);
var n: integer;
begin
    n:=strtoint(edtNbreEq.Text);
    IniMatches(sgMatches, n);
    IniTfinal(sgTfinal,n);
end;

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procedure TForm1.btnFinalClick(Sender: TObject);
var n: integer;
begin
    n:=strtoint(edtNbreEq.Text);
    analyze(sgMatches, sgTfinal, n);
end;

procedure TForm1.btnWinnerClick(Sender: TObject);
var winner, i, n, max: integer;
begin
    n:=strtoint(edtNbreEq.Text);
    max:=0;
    for i:=1 to n do
        if (strtoint(sgTfinal.Cells[1, i])>max) then
            begin
                max:=strtoint(sgTfinal.Cells[1, i]);
                winner:=i;
            end;
    for i:=1 to n do
        if (strtoint(sgTfinal.Cells[1, i])= strtoint(sgTfinal.Cells[1, winner]))
            and (strtoint(sgTfinal.Cells[2, i]) > strtoint(sgTfinal.Cells[2, winner]))
                then winner:=i;
    lblWinner.Caption:='Le vainqueur est l''quipe ' + inttostr(winner);
end;

end.

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