Carlos Macaneta

```pascal
Program WageMath;
uses crt, dos;  //dos biblioteca de data e hora.
{---Identificao de topicos----}
Label
  start, menuadmin, login,
  menufunc, menu, opcoes,
  apa, rel, relat, relato;
{----Constante da data e hora----}
Const
  diadasemana: Array [1..7] of String = ('Domigo', 'Segunda', 'Terca', 'Quarta', 'Quinta', 'Sexta', 'Sabado');
  mesdoano: Array [1..12] of String = ('Janeiro', 'Fevereiro', 'Marco', 'Abril', 'Maio', 'Junho',
  'Julho', 'Agosto', 'Setembro', 'Outubro', 'Novembro', 'Dezembro');
{----Arquivos de registro de dados----}
Type
  utilizador = Record
    username, password: String[15];
    nome, sexo: string;
    nasc: string[10];
    bi: String[13];
    id: Integer;
  end;
  arquivo1 = file of utilizador;
  funcionario = Record
    nome, sexo, email, cargo: string;
    nasc: string[10];
    bi: string[13];
    cel: Array[1..2] of string;
    salario, aumento, desconto, paumento,
    pdesconto, salariototal, antigo: real;
    id, Ahext, Dhext: Integer;
  end;
  arquivo2 = file of funcionario;
{----Variaveis auxiliares e principais----}
Var
  arq1: arquivo1;
  admin: utilizador;
  arq2: arquivo2;
  func: funcionario;
  salario, aumento,
  deconto, paumento,
  pdesconto, salariototal: real;
  i, option, n, up, Ahext,Dhext,
  ibusca, idF, idA, day, dia, mes,
  ano, hora, minuto, segundo,
  msegundo, weekday: Integer;
  nomefunc, nomeadmin,
  tel, mail: String;
  user, pass, passadmin: string[15];
  tecla: char;
  encontrei: Boolean;
{----Subprogramas----}
Function Existe_Util(var fich: arquivo1):Boolean;
  Begin
    {$I-}
    Reset(fich);
      if IOResult = 0 then
        Begin
          Existe_Util := true;
        end
      else
        Existe_Util := false;
    {$I+}
  end;
//----------------------------------------
Procedure Registro_Util(var fich: arquivo1);
  Begin
    Assign(arq1, 'Utilizador.dat');
    ReWrite(arq1);
    ClrScr;
    textcolor(blue);
    textbackground(lightcyan);
    gotoxy(35,2);Writeln('_REGISTRO DO ADMINISTRADOR_');
    textcolor(white);
    textbackground(blue);
    Randomize;
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    admin.id := 1101+Random(1000);
    gotoxy(20,5);Writeln('ID: ',admin.id);
    gotoxy(20,6);Write('Nome completo: ');
    textcolor(yellow);Readln(admin.nome);
    For up := 1 To Length(admin.nome) Do
      admin.nome[up] := Upcase(admin.nome[up]);
    textcolor(white);gotoxy(20,7);write('Data de nascimento(dd/mm/aaaa): ');
    textcolor(yellow);readln(admin.nasc);textcolor(white);
    gotoxy(20,8);textcolor(white);write('Bilhete de identidade: ');
    textcolor(yellow);readln(admin.bi);
    for up := 1 to Length(admin.bi) do
      admin.bi[up] := upcase(admin.bi[up]);
    gotoxy(20,9);textcolor(white);write('Sexo: ');
    textcolor(yellow);readln(admin.sexo);
    for up := 1 to Length(admin.sexo) do
      admin.sexo[up] := upcase(admin.sexo[up]);
    gotoxy(20,10);textcolor(white);writeln('-----------------------------------');
    gotoxy(20,11);write('Username: ');
    textcolor(yellow);readln(admin.username);
    for up := 1 to Length(admin.username)do
      admin.username[up] := upcase(admin.username[up]);
    textcolor(white);gotoxy(20,12);Write('Password: ');
    textcolor(yellow);Readln(admin.password);
    For up := 1 To Length(admin.password) Do
    admin.password[up] := Upcase(admin.password[up]);
    write(arq1, admin);
    close(arq1);
  end;
//-----------------------------------------
Procedure Adicionar_Util(var fich: arquivo1);
  Begin
    Assign(arq1, 'Utilizador.dat');
    Reset(arq1);
    Seek(arq1, FileSize(arq1));
    ClrScr;
    textcolor(blue);
    textbackground(lightcyan);
    gotoxy(35,2);Writeln('_REGISTRO DO ADMINISTRADOR_');
    textcolor(white);
    textbackground(blue);
    Randomize;
    admin.id := 1101+Random(1000);
    gotoxy(20,5);Writeln('ID: ',admin.id);
    gotoxy(20,6);Write('Nome completo: ');
    textcolor(yellow);Readln(admin.nome);
    For up := 1 To Length(admin.nome) Do
      admin.nome[up] := Upcase(admin.nome[up]);
    textcolor(white);gotoxy(20,7);write('Data de nascimento(dd/mm/aaaa): ');
    textcolor(yellow);readln(admin.nasc);textcolor(white);
    gotoxy(20,8);textcolor(white);write('Bilhete de identidade: ');
    textcolor(yellow);readln(admin.bi);
    for up := 1 to Length(admin.bi) do
      admin.bi[up] := upcase(admin.bi[up]);
    gotoxy(20,9);textcolor(white);write('Sexo: ');
    textcolor(yellow);readln(admin.sexo);
    for up := 1 to Length(admin.sexo) do
      admin.sexo[up] := upcase(admin.sexo[up]);
    gotoxy(20,10);textcolor(white);writeln('-----------------------------------');
    gotoxy(20,11);write('Username: ');
    textcolor(yellow);readln(admin.username);
    for up := 1 to Length(admin.username)do
      admin.username[up] := upcase(admin.username[up]);
    textcolor(white);gotoxy(20,12);Write('Password: ');
    textcolor(yellow);Readln(admin.password);
    For up := 1 To Length(admin.password) Do
    admin.password[up] := Upcase(admin.password[up]);
    write(arq1, admin);
    close(arq1);
  end;
//-----------------------------------------------------------------
Function Verifica_Util(var fich: arquivo1; usr, pwd: string): Boolean;
  Begin
    Assign(arq1, 'Utilizador.dat');
    Reset(arq1);
    for i := 0 to FileSize(arq1)-1 Do
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    Begin
      seek(arq1, i);
      Read(arq1, admin);
      if(admin.username = usr) and (admin.password = pwd)then
        Begin
          Verifica_Util := true;
        end
      Else
        Verifica_Util := False;
    end;
  Close(arq1);
end;
//--------------------------------------------
Function Exist_Func(var fich:arquivo2):Boolean;
  Begin
    {$I-}
    Reset(arq2);
    if IOResult = 0 Then
      Begin
        Exist_Func:= true;
      End
    Else
      Exist_Func:= false;
    {$I+}
  End;
//--------------------------------------
Procedure Registro_Func(var fich:arquivo2);
  Begin
    Assign(arq2, 'Funcionario.dat');
    ReWrite(arq2);
    ClrScr;
    TEXTCOLOR(BLUE);
    TEXTBACKGROUND(LIGHTCYAN);
    gotoxy(35,2);writeln('_REGISTRO DO FUNCIONARIO_ ');
    TEXTCOLOR(WHITE);
    TEXTBACKGROUND(BLUE);
    gotoxy(15,6);writeln('Quantos funcionarios deseja registrar?');
    gotoxy(15,7);write('>>> ');
    readln(n);
    for i := 1 to n do
      Begin
        ClrScr;
        TEXTCOLOR(BLUE);
        TEXTBACKGROUND(LIGHTCYAN);
        gotoxy(35,2);writeln('_REGISTRO DO FUNCIONARIO_ ');
        TEXTCOLOR(WHITE);
        TEXTBACKGROUND(BLUE);
        Randomize;
        func.id:= 110101+Random(100);
        gotoxy(15,6);Writeln('ID FUNCIONARIO: ',func.id);
        gotoxy(15,7);Write('Nome completo: ');
        textcolor(yellow);Readln(func.nome);
        For up := 1 To Length(func.nome) Do
          func.nome[up] := Upcase(func.nome[up]);
        textcolor(white);gotoxy(15,8);write('Data de nascimento(dd/mm/aaaa): ');
        textcolor(yellow);readln(func.nasc);
        textcolor(white);gotoxy(15,9);write('Bilhete de identidade: ');
        textcolor(yellow);readln(func.bi);
        for up := 1 to Length(func.bi) do
          func.bi[up] := upcase(func.bi[up]);
        textcolor(white);gotoxy(15,10);write('Sexo: ');
        textcolor(yellow);readln(func.sexo);
        for up := 1 to Length(func.sexo) do
          func.sexo[up] := upcase(func.sexo[up]);
        textcolor(white);gotoxy(15,11);write('Celular: ');
        textcolor(yellow);readln(func.cel[1]);
        textcolor(white);gotoxy(15,12);write('Celular alternativo: ');
        textcolor(yellow);readln(func.cel[2]);
        gotoxy(15,13);textcolor(white);Write('Email: ');
        textcolor(yellow);Readln(func.email);
        ClrScr;
        textcolor(white);
        gotoxy(15,5);writeln('[1] Gerente');
        gotoxy(15,6);writeln('[2] Engenheiro');
        gotoxy(15,7);writeln('[3] Tecnico');
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              gotoxy(15,8);writeln('[4] Outros');
              gotoxy(15,9);writeln('-------------');
              gotoxy(15,10);write('>>> ');
              readln(option);
              case(option)of
                1: Begin
                       func.salario := 60000;
                       func.cargo := 'Gerente';
                    end;
                2: Begin
                       func.salario := 50000;
                       func.cargo := 'Engenheiro';
                    end;
                3: Begin
                       func.salario := 40000;
                       func.cargo := 'Tecnico';
                    end;
                4: Begin
                       func.salario := 30000;
                       func.cargo := 'Outros';
                    End
                Else RunError;
              end;
              write(arq2, func);
            end;
          Close(arq2);
   End;
//---------------------------------------
Procedure Adicionar_Func(var fich: arquivo2);
   Begin
      Assign(arq2, 'Funcionario.dat');
      Reset(arq2);
      Seek(arq2, FileSize(arq2));
      ClrScr;
      TEXTCOLOR(BLUE);
      TEXTBACKGROUND(LIGHTCYAN);
      gotoxy(35,2);writeln('_REGISTRO DO FUNCIONARIO_ ');
      TEXTCOLOR(WHITE);
      TEXTBACKGROUND(BLUE);
      gotoxy(15,6);writeln('Quantos funcionarios deseja registrar?');
      gotoxy(15,7);write('>>> ');
      readln(n);
      for i := 1 to n do
        Begin
            ClrScr;
            TEXTCOLOR(BLUE);
            TEXTBACKGROUND(LIGHTCYAN);
            gotoxy(35,2);writeln('_REGISTRO DO FUNCIONARIO_ ');
            TEXTCOLOR(WHITE);
            TEXTBACKGROUND(BLUE);
            Randomize;
            func.id:= 110101+Random(100);
            gotoxy(15,6);Writeln('ID FUNCIONARIO: ',func.id);
            gotoxy(15,7);Write('Nome completo: ');
            textcolor(yellow);Readln(func.nome);
            For up := 1 To Length(func.nome) Do
              func.nome[up] := Upcase(func.nome[up]);
            textcolor(white);gotoxy(15,8);write('Data de nascimento(dd/mm/aaaa): ');
            textcolor(yellow);readln(func.nasc);
            textcolor(white);gotoxy(15,9);write('Bilhete de identidade: ');
            textcolor(yellow);readln(func.bi);
            for up := 1 to Length(func.bi) do
              func.bi[up] := upcase(func.bi[up]);
            textcolor(white);gotoxy(15,10);write('Sexo: ');
            textcolor(yellow);readln(func.sexo);
            for up := 1 to Length(func.sexo) do
              func.sexo[up] := upcase(func.sexo[up]);
            textcolor(white);gotoxy(15,11);write('Celular: ');
            textcolor(yellow);readln(func.cel[1]);
            textcolor(white);gotoxy(15,12);write('Celular alternativo: ');
            textcolor(yellow);readln(func.cel[2]);
            gotoxy(15,13);textcolor(white);Write('Email: ');
            textcolor(yellow);Readln(func.email);
            ClrScr;
            textcolor(white);
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            gotoxy(15,5);writeln('[1] Gerente');
            gotoxy(15,6);writeln('[2] Engenheiro');
            gotoxy(15,7);writeln('[3] Tecnico');
            gotoxy(15,8);writeln('[4] Outros');
            gotoxy(15,9);writeln('--------------');
            gotoxy(15,10);write('>>> ');
            readln(option);
            case(option)of
              1: Begin
                     func.salario := 60000;
                     func.cargo := 'Gerente';
                  end;
              2: Begin
                     func.salario := 50000;
                     func.cargo := 'Engenheiro';
                  end;
              3: Begin
                     func.salario := 40000;
                     func.cargo := 'Tecnico';
                  end;
              4: Begin
                     func.salario := 30000;
                     func.cargo := 'Outros';
                  End
              Else RunError;
            end;
            salario := func.salario;
            write(arq2, func);
        end;
        Close(arq2);
  End;
//----------------------------------------
Procedure listar_Func(var fich: arquivo2);
  Begin
     Assign(fich, 'Funcionario.dat');
     Reset(fich);
     While not Eof(fich)do
       Begin
          read(fich, func);
          writeln('ID: ',func.id);
          writeln('NOME: ',func.nome);
          writeln('DATA DE NASCIMENTO: ', func.nasc);
          writeln('BILHETE DE IDENTIDADE: ',func.bi);
          writeln('SEXO: ', func.sexo);
          writeln('CARGO: ',func.cargo);
          writeln('SALARIO: ',func.salario:2:2,'MZN');
          writeln('CELULAR: ', func.cel[1]);
          writeln('CELULAR ALTERNATIVO: ', func.cel[2]);
          writeln('Email: ', func.email);
          writeln('--------------------------------');
       end;
     Close(fich);
  end;
//---------------------------------------------------------
Procedure PesquisaID_Func(var fich: arquivo2; idF: Integer);
  Begin
     ClrScr;
     TEXTCOLOR(BLUE);
     TEXTBACKGROUND(LIGHTCYAN);
     gotoxy(30,2);writeln('_PESQUISA DE FUNCIONARIO POR ID_');
     TEXTCOLOR(white);
     TEXTBACKGROUND(blue);
     gotoxy(10,6);write('ID do funcionario: ');
     readln(idF);
     Assign(arq2, 'Funcionario.dat');
     Reset(arq2);
     for i := 0 to FileSize(arq2)-1 do
       Begin
         Seek(arq2, i);
         read(arq2, func);
         if(func.id = idF)then
           Begin
             with func do
               Begin
                 ClrScr;
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                    writeln('ID: ', id);
                    writeln('NOME: ', nome);
                    writeln('DATA DE NASCIMENTO: ', nasc);
                    writeln('BILHETE DE IDENTIDADE: ', bi);
                    writeln('SEXO: ', sexo);
                    writeln('CARGO: ', cargo);
                    writeln('SALARIO: ', salario:2:2,'MZN');
                    writeln('CELULAR: ', cel[1]);
                    writeln('CELULAR ALTERNATIVO: ', cel[2]);
                    writeln('Email: ', email);
                    writeln('-------------------------------');
                    encontrei := true;
                    writeln('Clique enter para voltar');
                    readln;
                    break;
                end;
          end;  encontrei := False;
      end;
      Close(arq2);
      if(encontrei = false)then
      Begin
        ClrScr;
        gotoxy(15,6);textcolor(lightred);writeln('ID nao registrado.');
        gotoxy(15,7);textcolor(white);writeln('Pressione enter para voltar');
        readln;
      end;
  end;
//-------------------------------------------------------
Procedure PesquisaNome_Func(var fich: arquivo2; nomefunc: string);
  Begin
    ClrScr;
    TEXTCOLOR(BLUE);
    TEXTBACKGROUND(LIGHTCYAN);
    gotoxy(30,2);writeln('_PESQUISA DE FUNCIONARIO PELO NOME_');
    TEXTCOLOR(WHITE);
    TEXTBACKGROUND(BLUE);
    gotoxy(10,5);write('Nome do funcionario: ');
    readln(nomefunc);
    for up := 1 to Length(nomefunc)do
     nomefunc[up] := upcase(nomefunc[up]);
     Assign(arq2, 'Funcionario.dat');
     Reset(arq2);
     for i := 0 to FileSize(arq2)-1 do
       Begin
         Seek(arq2, i);
         read(arq2, func);
         if (func.nome = nomefunc) then
           Begin
             with func do
               Begin
                 ClrScr;
                 writeln('ID: ', id);
                 writeln('NOME: ', nome);
                 writeln('DATA DE NASCIMENTO: ', nasc);
                 writeln('BILHETE DE IDENTIDADE: ', bi);
                 writeln('SEXO: ', sexo);
                 writeln('CARGO: ', cargo);
                 writeln('SALARIO: ', salario:2:2,'MZN');
                 writeln('CELULAR: ', cel[1]);
                 writeln('CELULAR ALTERNATIVO: ', cel[2]);
                 writeln('Email: ', email);
                 writeln('-------------------------------');
                 encontrei := true;
                 writeln('Clique enter para voltar');
                 readln;
                 break;
               End;
          end;  encontrei := False;
      end;
      Close(arq2);
      if encontrei = False Then
        Begin
          ClrScr;
          gotoxy(15,6);textcolor(lightred);writeln('Funcionario nao registrado.');
          gotoxy(15,7);textcolor(white);writeln('Pressione enter para voltar');
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                readln;
           end;
      End;
//----------------------------------------------------------------------
Procedure AlterarPerfil_Func(var fich: arquivo2; idF: Integer; nomefunc:String);
    Begin
      ClrScr;
      textcolor(blue);
      textbackground(lightcyan);
      gotoxy(28,3);writeln('_EDITAR PERFIL DO FUNCIONARIO_');
      textcolor(white);
      textbackground(blue);
      gotoxy(10,8);write('ID do funcionario: ');
      textcolor(yellow);readln(idF);textcolor(white);
      gotoxy(10,9);write('Nome do funcionario: ');
      textcolor(yellow);readln(nomefunc);TExtcolor(white);
      for up := 1 to Length(nomefunc)do
        nomefunc[up] := upcase(nomefunc[up]);
      Assign(arq2, 'Funcionario.dat');
      Reset(arq2);
      for i := 0 to FileSize(arq2)-1 do
        Begin
          if(func.id = idF) and (func.nome = nomefunc)then
            Begin
              ClrScr;
              textcolor(blue);
              textbackground(lightcyan);
              gotoxy(30,3);writeln('_EDITAR PERFIL DO FUNCIONARIO_');
              textcolor(white);
              textbackground(blue);
              gotoxy(9,5);writeln('Introduza os dados a serem alterados.');
              gotoxy(10,8);Writeln('ID FUNCIONARIO: ',func.id);
              gotoxy(10,9);Write('Nome completo: ');
              textcolor(yellow);Readln(func.nome);
              For up := 1 To Length(func.nome) Do
                func.nome[up] := Upcase(func.nome[up]);
              textcolor(white);gotoxy(10,10);write('Data de nascimento(dd/mm/aaaa): ');
              textcolor(yellow);readln(func.nasc);
              gotoxy(10,11);textcolor(white);write('Bilhete de identidade: ');
              textcolor(yellow);readln(func.bi);
              for up := 1 to Length(func.bi) do
                func.bi[up] := upcase(func.bi[up]);
              textcolor(white);gotoxy(10,12);write('Sexo: ');
              textcolor(yellow);readln(func.sexo);
              for up := 1 to Length(func.sexo) do
                func.sexo[up] := upcase(func.sexo[up]);
              gotoxy(10,13);textcolor(white);write('Celular: ');
              textcolor(yellow);readln(func.cel[1]);
              textcolor(white);gotoxy(10,14);write('Celular alternativo: ');
              textcolor(yellow);readln(func.cel[2]);
              textcolor(white);gotoxy(10,15);Write('Email: ');
              textcolor(yellow);Readln(func.email);
              ClrScr;
              textcolor(white);
              gotoxy(20,6);writeln('[1] Gerente');
              gotoxy(20,7);writeln('[2] Engenheiro');
              gotoxy(20,8);writeln('[3] Tecnico');
              gotoxy(20,9);writeln('[4] Outros');
              gotoxy(20,10);writeln('--------------');
              gotoxy(20,11);write('>>> ');
              readln(option);
              case(option)of
                1: Begin
                     func.salario := 60000;
                     func.cargo := 'Gerente';
                   end;
                2: Begin
                     func.salario := 50000;
                     func.cargo := 'Engenheiro';
                   end;
                3: Begin
                     func.salario := 40000;
                     func.cargo := 'Tecnico';
                   end;
                4: Begin
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                func.salario := 30000;
                func.cargo := 'Outros';
              End;
          End;
        Assign(arq2, 'Funcionario.dat');
        Reset(arq2);
        write(arq2, func);
        Close(arq2);
        ClrScr;
        gotoxy(5,15);textcolor(lightgreen);writeln('Os seu perfil foi actualizado com sucesso.');
        textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar ao menu');
      end
    Else
      Begin
        ClrScr;;
        textcolor(lightred);gotoxy(5,15);writeln('Os dados introduzidos nao foram encontrados em nossos registros.');
        textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar ao menu');
      end;
  end;
end;
//------------------------------------------------------------------
Procedure Eliminar_Func(var fich: arquivo2; idF: Integer; nomefunc:String);
  Begin
    ClrScr;
    Textcolor(blue);
    Textbackground(lightcyan);
    GotoXY(33,3);writeln('_REMOVER PERFIL DO FUNCIONARIO_ ');
    Textcolor(white);
    Textbackground(blue);
    gotoxy(10,8);write('ID do funcinonario: ');
    textcolor(yellow);readln(idF);textcolor(white);
    gotoxy(10,9);write('Nome do funcionario: ');
    textcolor(yellow);readln(nomefunc);textcolor(white);
    for up := 1 to Length(nomefunc)Do
      nomefunc[up] := upcase(nomefunc[up]);
    Assign(arq2, 'Funcionario.dat');
    Reset(arq2);
    for i := 0 to FileSize(arq2)-1 Do
      Begin
        Seek(arq2, i);
        Read(arq2, func);
        if(func.id = idF) and (func.nome = nomefunc)then
          begin
            Close(arq2);
            gotoxy(10,10);textcolor(white);writeln('Tem certeza de que deseja eliminar fucionario[S/N]?');
            tecla := readkey;
            tecla := upcase(tecla);
            if(tecla = 'S')then
              Begin
                Reset(arq2);
                Seek(arq2, i+1);
                while not Eof(arq2)Do
                  Begin
                    read(arq2, func);
                    seek(arq2, FilePos(arq2)-2);
                    write(arq2, func);
                    Seek(arq2, FilePos(arq2)+1);
                  end;
                Seek(arq2, FilePos(arq2)-1);
                Truncate(arq2);
                Close(arq2);
                encontrei := true;
                ClrScr;
                gotoxy(5,15);textcolor(lightgreen);Writeln('Usuario removido.');
                gotoxy(5,16);textcolor(white);Writeln('Click enter para voltar.');
                Readln;
              end
            else
              Begin
                if(tecla = 'N')then
                  Begin
                    ClrScr;
                    encontrei := True;
                    gotoxy(10,5);writeln('Operacao cancelada.');
                    gotoxy(10,6);Writeln('Click enter para voltar.');
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                Readln;
            end
          else RunError;
        end;
      end
    Else
      Begin
        ClrScr;
        gotoxy(8,5);textcolor(lightred);writeln('Funcionario nao registrado.');
        textcolor(white);gotoxy(8,6);writeln('Click enter para voltar.');
        readln;
      end;
    end;
  end;
end;
//-------------------------------------
Procedure Wage_Func(var fich: arquivo2);
  Label
    behind, back, previous;
  var
    aumento, desconto, paumento, pdesconto,
    salario, salariototal, antigo: Real;
    nomefunc: String;
    Ahext, Dhext: Integer;

  Begin
    ClrScr;
    TEXTCOLOR(BLUE);
    TEXTBACKGROUND(LIGHTCYAN);
    gotoxy(35,2);writeln('_FOLHA DE AJUSTE SALARIAL_');
    TEXTCOLOR(WHITE);
    TEXTBACKGROUND(BLUE);
    GOTOXY(10,6);write('Nome do funcionario: ');
    textcolor(yellow);readln(nomefunc);textcolor(white);
    for up := 1 to Length(nomefunc)do
      nomefunc[up] := Upcase(nomefunc[up]);
    Assign(arq2, 'Funcionario.dat');
    reset(arq2);
    for i := 0 to FileSize(arq2)-1 do
      Begin
        Seek(arq2, i);
        Read(arq2, func);
        if(func.nome = nomefunc)then
          Begin
            behind:
            ClrScr;
            writeln('ID: ', func.id);
            writeln('NOME: ', func.nome);
            writeln('DATA DE NASCIMENTO: ', func.nasc);
            writeln('BILHETE DE IDENTIDADE: ', func.bi);
            writeln('SEXO: ', func.sexo);
            writeln('CARGO: ', func.cargo);
            writeln('SALARIO: ', func.salario:2:2,'MZN');
            writeln('CELULAR: ', func.cel[1]);
            writeln('CELULAR ALTERNATIVO: ', func.cel[2]);
            writeln('Email: ', func.email);
            writeln('-------------------------------');
            writeln('[1] Aumento salarial.');
            writeln('[2] Desconto salarial.');
            writeln('[3] Voltar');
            write('>>> ');
            readln(option);
            case(option)of
              1: Begin
                   back:
                   ClrScr;
                   Assign(arq2, 'Funcionario.dat');
                   reset(arq2);
                   ReWrite(arq2);
                   gotoxy(25,8);writeln('[1] Por horas extras de trabalho.');
                   gotoxy(25,9);writeln('[2] Por percentagem.');
                   gotoxy(25,10);writeln('[3] Voltar');
                   gotoxy(25,12);write('>>> ');
                   readln(option);
                   case(option)of
                       1: Begin
```

```pascal
ClrScr;
gotoxy(25,8);writeln('[1] 1 Hora.');
gotoxy(25,9);writeln('[2] 2 Horas.');
gotoxy(25,10);writeln('[3] 3 Horas.');
gotoxy(25,11);writeln('[4] Outras Horas.');
gotoxy(25,12);writeln('[5] Voltar');
gotoxy(25,13);write('>>> ');
readln(option);
case(option)Of
   1: Begin
        ClrScr;
        func.Ahext := 1;
        func.salariototal := (func.salario * (1 + 6.5/100)) + 250 * func.Ahext;
        func.aumento  := func.salariototal - func.salario;
        func.salario := func.salariototal;
        func.antigo := func.salario - func.aumento;
        gotoxy(10,5);writeln('--------------------------------');
        gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
        gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
        gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
        gotoxy(10,9);writeln('--------------------------------');
        gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
        readln;
      end;
   2: Begin
        ClrScr;
        func.Ahext := 2;
        func.salariototal := (func.salario * (1 + 13/100)) + 250 * func.Ahext;
        func.aumento  := func.salariototal - func.salario;
        func.salario := func.salariototal;
        func.antigo := func.salario - func.aumento;
        gotoxy(10,5);writeln('--------------------------------');
        gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
        gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
        gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
        gotoxy(10,9);writeln('--------------------------------');
        gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
        readln;
      end;
   3: Begin
        ClrScr;
        func.Ahext := 3;
        func.salariototal := (func.salario * (1 + 19.5/100)) + 250 * func.Ahext;
        func.aumento  := func.salariototal - func.salario;
        func.salario := func.salariototal;
        func.antigo := func.salario - func.aumento;
        gotoxy(10,5);writeln('--------------------------------');
        gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
        gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
        gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
        gotoxy(10,9);writeln('--------------------------------');
        gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
        readln;
      end;
   4: Begin
        ClrScr;
        gotoxy(10,8);writeln('Quantas horas extras de trabalho?');
        gotoxy(10,9);write('>>> ');
        readln(func.Ahext);
        func.salariototal := (func.salario * (1 + 19.5/100)) + 250 * func.Ahext;
        func.aumento  := func.salariototal - func.salario;
        func.salario := func.salariototal;
        func.antigo := func.salario - func.aumento;
        ClrScr;
        gotoxy(10,5);writeln('--------------------------------');
        gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
        gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
        gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
        gotoxy(10,9);writeln('--------------------------------');
        gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
        readln;
      end;
   5: goto back;
   end;
end;
```

```pascal
2: Begin
        ClrScr;
        gotoxy(25,8);writeln('[1] 10 %.');
        gotoxy(25,9);writeln('[2] 20 %.');
        gotoxy(25,10);writeln('[3] 30 %.');
        gotoxy(25,11);writeln('[4] Outras %.');
        gotoxy(25,12);writeln('[5] Voltar');
        gotoxy(25,13);write('>>> ');
        readln(option);
        case(option)Of
          1: Begin
                ClrScr;
                func.salariototal := func.salario * 1.1;
                func.paumento := 10;
                func.aumento  := func.salariototal - func.salario;
                func.salario := func.salariototal;
                func.antigo := func.salario - func.aumento;
                gotoxy(10,5);writeln('--------------------------------');
                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                gotoxy(10,9);writeln('--------------------------------');
                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                readln;
             end;
          2: Begin
                ClrScr;
                func.salariototal := func.salario * 1.2;
                func.paumento := 20;
                func.aumento  := func.salariototal - func.salario;
                func.salario := func.salariototal;
                func.antigo := func.salario - func.aumento;
                gotoxy(10,5);writeln('--------------------------------');
                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                gotoxy(10,9);writeln('--------------------------------');
                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                readln;
             end;
          3: Begin
                ClrScr;
                func.salariototal := func.salario * 1.3;
                func.paumento := 30;
                func.aumento  := func.salariototal - func.salario;
                func.salario := func.salariototal;
                func.antigo := func.salario - func.aumento;
                gotoxy(10,5);writeln('--------------------------------');
                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                gotoxy(10,9);writeln('--------------------------------');
                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                readln;
             end;
          4: Begin
                ClrScr;
                gotoxy(10,8);writeln('Quanto sera o aumento percentual?');
                gotoxy(10,9);write('>>> ');
                readln(func.paumento);
                func.salariototal := func.salario * (1 +(func.paumento)/100);
                func.aumento  := func.salariototal - func.salario;
                func.salario := func.salariototal;
                func.antigo := func.salario - func.aumento;
                ClrScr;
                gotoxy(10,5);writeln('--------------------------------');
                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                gotoxy(10,7);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                gotoxy(10,9);writeln('--------------------------------');
                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                readln;
             End;
          5: goto back;
        end;
```

```pascal
          end;
       3: goto behind
       Else goto back;
      end;
   end;
2: Begin
    previous:
    ClrScr;
    Assign(arq2, 'Funcionario.dat');
    reset(arq2);
    ReWrite(arq2);
    gotoxy(25,8);writeln('[1] Por horas extras de trabalho.');
    gotoxy(25,9);writeln('[2] Por percentagem.');
    gotoxy(25,10);writeln('[3] Voltar');
    gotoxy(25,11);write('>>> ');
    readln(option);
    case(option)of
      1: Begin
           ClrScr;
           gotoxy(25,8);writeln('[1] 1 Hora');
           gotoxy(25,9);writeln('[2] 2 Horas');
           gotoxy(25,10);writeln('[3] 3 Horas');
           gotoxy(25,11);writeln('[4] Outras Horas');
           gotoxy(25,12);writeln('[5] Voltar');
           gotoxy(25,13);write('>>> ');
           readln(option);
           case(option)Of
             1: Begin
                  ClrScr;
                  func.Dhext := 1;
                  func.salariototal := (func.salario * (1 + 6.5/100)) - 250 * func.Dhext;
                  func.desconto  := func.salariototal - func.salario;
                  func.salario := func.salariototal;
                  func.antigo := func.salario + func.desconto;
                  gotoxy(10,5);writeln('-------------------------------');
                  gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                  gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                  gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                  gotoxy(10,9);writeln('-------------------------------');
                  gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                  readln;
                end;
             2: Begin
                  ClrScr;
                  func.Dhext := 2;
                  func.salariototal := (func.salario * (1 + 13/100)) - 250 * func.Dhext;
                  func.desconto  := func.salariototal - func.salario;
                  func.salario := func.salariototal;
                  func.antigo := func.salariototal + func.desconto;
                  gotoxy(10,5);writeln('-------------------------------');
                  gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                  gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                  gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                  gotoxy(10,9);writeln('-------------------------------');
                  gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                  readln;
                end;
             3: Begin
                  ClrScr;
                  func.Dhext := 3;
                  func.salariototal := (func.salario * (1 + 19.5/100)) - 250 * func.Dhext;
                  func.desconto  := func.salariototal - func.salario;
                  func.salario := func.salariototal;
                  func.antigo := func.salariototal + func.desconto;
                  gotoxy(10,5);writeln('-------------------------------');
                  gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                  gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                  gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                  gotoxy(10,9);writeln('-------------------------------');
                  gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                  readln;
                end;
             4: Begin
                  ClrScr;
                  gotoxy(10,5);writeln('Quantas horas extras de trabalho?');
```

```pascal
                    gotoxy(10,6);write('>>> ');
                    readln(func.Dhext);
                    func.salariototal := (func.salario * (1 + 6.5/100)) - 250 * func.Dhext;
                    func.desconto  := func.salariototal - func.salario;
                    func.salario := func.salariototal;
                    func.antigo := func.salario + func.desconto;
                    ClrScr;
                    gotoxy(10,5);writeln('---------------------------------');
                    gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                    gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                    gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                    gotoxy(10,9);writeln('------------------------------');
                    gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                    readln;
                end;
            5: goto previous;
        end;
    end;
2: Begin
        ClrScr;
        gotoxy(25,8);writeln('[1] 10 %.');
        gotoxy(25,9);writeln('[2] 20 %.');
        gotoxy(25,10);writeln('[3] 30 %.');
        gotoxy(25,11);writeln('[4] Outras %.');
        gotoxy(25,12);writeln('[5] Voltar');
        gotoxy(25,13);write('>>> ');
        readln(option);
        case(option)Of
          1: Begin
                ClrScr;
                func.salariototal := func.salario * 0.9;
                func.pdesconto := 10;
                func.desconto  := func.salariototal - func.salario;
                func.salario := func.salariototal;
                func.antigo := func.salariototal - func.desconto;
                gotoxy(10,5);writeln('---------------------------------');
                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                gotoxy(10,9);writeln('------------------------------');
                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                readln;
            end;
          2: Begin
                ClrScr;
                func.salariototal := func.salario * 0.8;
                func.pdesconto := 20;
                func.desconto  := func.salariototal - func.salario;
                func.salario := func.salariototal;
                func.antigo := func.salariototal - func.desconto;
                gotoxy(10,5);writeln('---------------------------------');
                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                gotoxy(10,9);writeln('------------------------------');
                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                readln;
            end;
          3: Begin
                ClrScr;
                func.salariototal := func.salario * 0.7;
                func.pdesconto := 30;
                func.desconto  := func.salariototal - func.salario;
                func.salario := func.salariototal;
                func.antigo := func.salariototal - func.desconto;
                gotoxy(10,5);writeln('---------------------------------');
                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                gotoxy(10,9);writeln('------------------------------');
                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                readln;
            end;
          4: Begin
                ClrScr;
```

```pascal
                                gotoxy(10,5);writeln('Quanto sera o desconto percentual?');
                                gotoxy(10,6);write('>>> ');
                                readln(func.pdesconto);
                                func.salariototal := func.salario * (1 -(func.pdesconto)/100);
                                func.desconto  := func.salariototal - func.salario;
                                func.salario := func.salariototal;
                                func.antigo := func.salario - func.desconto;
                                ClrScr;
                                gotoxy(10,5);writeln('--------------------------------');
                                gotoxy(10,6);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                                gotoxy(10,7);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                                gotoxy(10,8);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                                gotoxy(10,9);writeln('--------------------------------');
                                gotoxy(10,10);writeln('Clique enter para voltar ao menu.');
                                readln;
                              End;
                        5: goto previous;
                     end;
                  end;
               3: goto behind
                  else goto previous;
             end;
             antigo := func.antigo;
             aumento := func.aumento;
             desconto := func.desconto;
             paumento := func.paumento;
             pdesconto := func.pdesconto;
             Ahext := func.Ahext;
             Dhext := func.Dhext;
             salario:= func.salario;
             salariototal := func.salariototal;
           end;
         3: read
           Else goto behind;
        end;
        Seek(arq2, i);
        write(arq2, func);
      end
    Else
      Begin
        ClrScr;
        textcolor(lightred);gotoxy(5,10);writeln('Funcionario nao registrado.');
        gotoxy(5,11);textcolor(white);writeln('Clique enter para voltar.');
        readln;
      end;
    end;
  end;
  Close(arq2);
end;
//-----------------------------------
Procedure Relatorio(var fich:arquivo2);
  Label
    back, previous, behind;
  Begin
    ClrScr;
    Assign(arq2, 'Funcionario.dat');
    Reset(arq2);
    while not Eof(arq2)do
      Begin
        read(arq2, func);
        back:
        ClrScr;
        textcolor(blue);
        textbackground(lightcyan);
        GOTOXY(30,3);writeln('_RELATORIO DO AJUSTE SALARIAL_');
        TEXTCOLOR(WHITE);
        TEXTBACKGROUND(BLUE);
        GOTOXY(20,9);writeln('[1] Aumento salarial');
        GOTOXY(20,10);writeln('[2] Desconto salarial');
        gotoxy(20,11);writeln('[3] Voltar');
        GOTOXY(20,12);writeln('--------------------');
        GOTOXY(20,13);write('>>> ');
        readln(option);
        case(option)of
          1: Begin
                behind:
```

```pascal
ClrScr;
textcolor(blue);
textbackground(lightcyan);
GOTOXY(30,3);writeln('_RELATORIO DO AJUSTE SALARIAL_');
TEXTCOLOR(WHITE);
TEXTBACKGROUND(BLUE);
GOTOXY(20,9);writeln('[1] Por hora extra de trabalho');
GOTOXY(20,10);writeln('[2] Por percentagem');
gotoxy(20,11);writeln('[3] Voltar');
GOTOXY(20,12);writeln('----------------------');
GOTOXY(20,13);write('>>> ');
readln(option);
Case(option)Of
  1: Begin
        ClrScr;
        textcolor(blue);
        textbackground(lightcyan);
        GOTOXY(30,3);writeln('_RELATORIO DO AUMENTO POR HORA EXTRA_');
        TEXTCOLOR(WHITE);
        TEXTBACKGROUND(BLUE);
        if(func.Ahext = 0)then
          Begin
            textcolor(lightred);gotoxy(15,10);writeln('Sem relatorio a ser apresentado.');
            gotoxy(10,11);textcolor(white);writeln('Clique enter para voltar ao menu.');
            readln;
          end
        Else
          Begin
            gotoxy(2,8);writeln('ID: ',func.id);
            gotoxy(2,9);writeln('NOME: ',func.nome);
            gotoxy(2,10);writeln('DATA DE NASCIMENTO: ', func.nasc);
            gotoxy(2,11);writeln('BILHETE DE IDENTIDADE: ',func.bi);
            gotoxy(2,12);writeln('SEXO: ', func.sexo);
            gotoxy(2,13);writeln('CARGO: ',func.cargo);
            gotoxy(2,14);writeln('CELULAR: ', func.cel[1]);
            gotoxy(2,15);writeln('CELULAR ALTERNATIVO: ', func.cel[2]);
            gotoxy(2,16);writeln('Email: ', func.email);
            gotoxy(2,17);writeln('--------------------------------');
            gotoxy(2,18);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
            GOTOXY(2,19);writeln('Hora(as) extras de trabalho: ',func.Ahext:2, ' hora(as)');
            gotoxy(2,20);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
            gotoxy(2,21);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
            gotoxy(2,22);writeln('--------------------------------');
            gotoxy(2,23);writeln('Clique enter para fechar o relatorio.');
            readln;
          end;
     end;
  2: Begin
        ClrScr;
        textcolor(blue);
        textbackground(lightcyan);
        GOTOXY(30,3);writeln('_RELATORIO DO AUMENTO POR PERCENTAGEM_');
        TEXTCOLOR(WHITE);
        TEXTBACKGROUND(BLUE);
        if(func.paumento = 0)Then
          Begin
            textcolor(lightred);gotoxy(15,10);writeln('Sem relatorio a ser apresentado.');
            gotoxy(10,11);textcolor(white);writeln('Clique enter para voltar ao menu.');
            readln;
          End
        Else
          Begin
            gotoxy(2,8);writeln('ID: ',func.id);
            gotoxy(2,9);writeln('NOME: ',func.nome);
            gotoxy(2,10);writeln('DATA DE NASCIMENTO: ', func.nasc);
            gotoxy(2,11);writeln('BILHETE DE IDENTIDADE: ',func.bi);
            gotoxy(2,12);writeln('SEXO: ', func.sexo);
            gotoxy(2,13);writeln('CARGO: ',func.cargo);
            gotoxy(2,14);writeln('CELULAR: ', func.cel[1]);
            gotoxy(2,15);writeln('CELULAR ALTERNATIVO: ', func.cel[2]);
            gotoxy(2,16);writeln('Email: ', func.email);
            gotoxy(2,17);writeln('--------------------------------');
            gotoxy(2,18);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
            GOTOXY(2,19);writeln('Percentual aumento: ',func.paumento:2:2, ' %');
            gotoxy(2,20);Writeln('Aumento Salarial: ',func.aumento:2:2,' MZN');
```

```pascal
                        gotoxy(2,21);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                        gotoxy(2,22);writeln('-------------------------------');
                        gotoxy(2,23);writeln('Clique enter para fechar o relatorio');
                        readln;
                    end;
                end;
          3: goto back;
          else goto behind;
        end;
    end;
    2: Begin
        previous:
        ClrScr;
        textcolor(blue);
        textbackground(lightcyan);
        GOTOXY(30,3);writeln('_RELATORIO DO AJUSTE SALARIAL_');
        TEXTCOLOR(WHITE);
        TEXTBACKGROUND(BLUE);
        GOTOXY(20,9);writeln('[1] Por hora extra de trabalho.');
        GOTOXY(20,10);writeln('[2] Por percentagem.');
        gotoxy(20,11);writeln('[3] Voltar');
        GOTOXY(20,12);writeln('---------------------');
        GOTOXY(20,13);write('>>> ');
        readln(option);
        Case(option)Of
          1: Begin
                ClrScr;
                textcolor(blue);
                textbackground(lightcyan);
                GOTOXY(30,3);writeln('_RELATORIO DO DESCONTO POR HORAS A MENOS_');
                TEXTCOLOR(WHITE);
                TEXTBACKGROUND(BLUE);
                if(func.Dhext = 0)then
                  Begin
                    textcolor(lightred);gotoxy(15,10);writeln('Sem relatorio a ser apresentado.');
                    gotoxy(10,11);textcolor(white);writeln('Clique enter para voltar ao menu.');
                    readln;
                  end
                Else
                  Begin
                    gotoxy(2,8);writeln('ID: ',func.id);
                    gotoxy(2,9);writeln('NOME: ',func.nome);
                    gotoxy(2,10);writeln('DATA DE NASCIMENTO: ', func.nasc);
                    gotoxy(2,11);writeln('BILHETE DE IDENTIDADE: ',func.bi);
                    gotoxy(2,12);writeln('SEXO: ', func.sexo);
                    gotoxy(2,13);writeln('CARGO: ',func.cargo);
                    gotoxy(2,14);writeln('CELULAR: ', func.cel[1]);
                    gotoxy(2,15);writeln('CELULAR ALTERNATIVO: ', func.cel[2]);
                    gotoxy(2,16);writeln('Email: ', func.email);
                    gotoxy(2,17);writeln('-------------------------------');
                    gotoxy(2,18);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                    GOTOXY(2,19);writeln('Hora(as) a menos de trabalho: ',func.Dhext:2, ' hora(as)');
                    gotoxy(2,20);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                    gotoxy(2,21);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                    gotoxy(2,22);writeln('-------------------------------');
                    gotoxy(2,23);writeln('Clique enter para fechar o relatorio. ');
                    readln;
                  end;
              END;
          2: Begin
                ClrScr;
                textcolor(blue);
                textbackground(lightcyan);
                GOTOXY(30,3);writeln('_RELATORIO DO DESCONTO POR PERCENTAGEM_');
                TEXTCOLOR(WHITE);
                TEXTBACKGROUND(BLUE);
                if(func.pdesconto = 0)Then
                  Begin
                    textcolor(lightred);gotoxy(15,10);writeln('Sem relatorio a ser apresentado.');
                    gotoxy(10,11);textcolor(white);writeln('Clique enter para voltar ao menu.');
                    readln;
                  end
                Else
                  Begin
                    gotoxy(2,8);writeln('ID: ',func.id);
```

```pascal
                            gotoxy(2,9);writeln('NOME: ',func.nome);
                            gotoxy(2,10);writeln('DATA DE NASCIMENTO: ', func.nasc);
                            gotoxy(2,11);writeln('BILHETE DE IDENTIDADE: ',func.bi);
                            gotoxy(2,12);writeln('SEXO: ', func.sexo);
                            gotoxy(2,13);writeln('CARGO: ',func.cargo);
                            gotoxy(2,14);writeln('CELULAR: ', func.cel[1]);
                            gotoxy(2,15);writeln('CELULAR ALTERNATIVO: ', func.cel[2]);
                            gotoxy(2,16);writeln('Email: ', func.email);
                            gotoxy(2,17);writeln('--------------------------------');
                            gotoxy(2,18);Writeln('Antigo Salario: ',func.antigo:2:2,' MZN');
                            GOTOXY(2,19);writeln('Percentual desconto: ',func.pdesconto:2:2, ' %');
                            gotoxy(2,20);Writeln('Desconto Salarial: ',func.desconto:2:2,' MZN');
                            gotoxy(2,21);Writeln('Novo Salario: ',func.salariototal:2:2,' MZN');
                            gotoxy(2,22);writeln('--------------------------------');
                            gotoxy(2,23);writeln('Clique enter para fechar o relatorio');
                            readln;
                        end;
                    END;
                3: goto back;
                else goto previous;
            end;
        end;
    3: read;
    else RunError;
    end;
    end;
    Close(arq2);
  end;
//----------------
Procedure Date_Time;
  Begin
    getdate(dia, mes, ano, weekday);
    gettime(hora, minuto, segundo, msegundo);
    Writeln('Data e Hora: ');
    Writeln(ano,'/', mesdoano[mes],'/',dia);
    Writeln(hora,':',minuto,':',segundo);
  end;
//--------------------------------------------------------------------
Function Verifica_Func(var fich: arquivo2; idF: Integer; nom:String): Boolean;
  Begin
    Assign(arq2, 'Funcionario.dat');
    Verifica_Func:= false;
    reset(arq2);
    while not Eof(arq2)do
      Begin
        read(arq2, func);
        with func do
        Begin
          if(func.id = idF) and (func.nome = nom)Then
            Begin
              Verifica_Func:= true;
            end;
        end;
      end;
    close(arq2);
  end;
{---Capa---}
procedure Design;
var i,j:integer;
begin
  J:=0;
  //textcolor(lightred);
  Textbackground(blue);
  ClrScr;
  textcolor(yellow);gotoxy(25,30);Writeln('Developer: Carlos Macaneta');
  textcolor(white);
{----Letra W----}
  For i:=4 To 16 Do
    Begin;
      Gotoxy(4,i);
      Write(#219);
    End;
  For i:=4 To 6 Do
    Begin;
      Gotoxy(i,16);
```

```pascal
       Write(#219);
     End;
  For i:=8 To 16 Do
     Begin;
       Gotoxy(6,i);
       Write(#219);
     End;
  For i:= 6 To 8 Do
     Begin;
       Gotoxy(i,7);
       Write(#219);
     End;
  For i:=8 To 16 Do
     Begin;
       Gotoxy(8,i);
       Write(#219);
     End;
  For i:=9 To 10 Do
     Begin;
       Gotoxy(i,16);
       Write(#219);
     End;
  For i:=4 To 16 Do
     Begin;
       Gotoxy(10,i);
       Write(#219);
     End;
{----Letra G----}
  For i:=12 To 17 Do
     Begin;
       Gotoxy(14,i);
       Write(#219);
     End;
  For i:= 14 To 22 Do
     Begin;
       Gotoxy(i,12);
       Write(#219);
     End;
  For i:=14 To 22 Do
     Begin;
       Gotoxy(i,18);
       Write(#219);
     End;
  For i:=12 To 26 Do
     Begin;
       Gotoxy(22,i);
       Write(#219);
     End;
  For i:=14 To 22 Do
     Begin;
       Gotoxy(i,27);
       Write(#219);
     End;
  For i:= 26 To 27 Do
     Begin;
       Gotoxy(14,i);
       Write(#219);
     End;
{----Letra M----}
  For i:=4 To 16 Do
     Begin;
       Gotoxy(25,i);
       Write(#219);
     End;
  For i:= 26 To 26 Do
     Begin;
       Gotoxy(i,4);
       Write(#219);
     End;
  For i:= 4 To 13 Do
     Begin;
       Gotoxy(27,i);
       Write(#219);
     End;
  For i:= 28 To 28 Do
```

```pascal
    Begin;
       Gotoxy(i,13);
       Write(#219);
    End;
  For i:= 4 To 13 Do
    Begin;
       Gotoxy(29,i);
       Write(#219);
    End;
  For i:= 30 To 30 Do
    Begin;
       Gotoxy(i,4);
       Write(#219);
    End;
  For i:=4 To 16 Do
    Begin;
       Gotoxy(31,i);
       Write(#219);
    End;
end;
//----------------
Procedure Progress;
Var
  i: Integer;
Begin
  Gotoxy(37,12);
  textcolor(yellow);
  Writeln('WageMath');
  For i:=17 To 25 Do
    Begin
       Gotoxy(37,13);
       textcolor(lightgray);
      writeln('Corporation');
       Gotoxy(i+20,15);
       textcolor(lightgreen);
       Write('.');
       delay(130);
    End;
  textcolor(white);
  Design;
  For i:=25 Downto 17 Do
    Begin
       Gotoxy(37,12);
       textcolor(yellow);
       Writeln('WageMath');
       Gotoxy(37,13);
       textcolor(lightgreen);
       Writeln('Loading');
       Gotoxy(i+20,15);
       textcolor(yellow);
       Write('.');
       delay(110);
    End;
  textcolor(white);
  Design;
  For i:=17 To 25 Do
    Begin
       Gotoxy(37,12);
       textcolor(yellow);
       Writeln('WageMath');
       Gotoxy(37,13);
       textcolor(lightgreen);
       Writeln('Welcome to WageMath');
       Gotoxy(i+20,15);
       textcolor(lightred);
       Write('.');
       delay(100);
    End;
End;
//------------------
Procedure Progress_Bar;
var
  i, j: Integer;
Begin
j:=0;
```

```pascal
ClrScr;
textcolor(white);
gotoxy(32,12);writeln('Aguarde Por favor...');
Textbackground(lightblue);
   for i := 30 to 54 do
     Begin
       j:=j+4;
       Gotoxy(41,14);
       textcolor(white);

       Writeln(j,'%');
       Gotoxy(i,13);
       textcolor(Black);
       Write(#223);
       delay(30);
     end;
     textcolor(white);
End;
{----Programa principal----}
Begin
  Design;
  Progress;
  start:
  Textcolor(white);
  Textbackground(blue);
  ClrScr;
  Textcolor(blue);
  Textbackground(lightcyan);
  gotoxy(26,3);Writeln('_BEM VINDO AO MENU INICIAL_');
  Textcolor(white);
  Textbackground(blue);
  textcolor(black);gotoxy(2,30);writeln('Developer: Carlos Macaneta');
  textcolor(white);
  gotoxy(25,10);writeln('  [1] Iniciar sessao              ');
  gotoxy(25,11);writeln('  [2] Criar usuario               ');
  gotoxy(25,12);writeln('  [3] Opcoes                      ');
  gotoxy(25,13);writeln('  [4] Sair                        ');
  gotoxy(25,14);writeln('=================================');
  gotoxy(25,15);write('>>> ');
  READLN(option);
  case(option)of
    1: Begin
          Assign(arq1, 'Utilizador.dat');
          Existe_Util(arq1);
          if(Existe_Util(arq1) = true)then
            Begin
              login:
              ClrScr;
              Textcolor(blue);
              Textbackground(lightcyan);
              gotoxy(33,3);Writeln('_LOGIN DO ADMIN_');
              Textcolor(white);
              Textbackground(blue);
              gotoxy(25,12);write('Username: ');
              textcolor(lightgreen);readln(user);textcolor(white);
              for up := 1 to Length(user)do
               user[up] := upcase(user[up]);
              gotoxy(25,13);write('Password: ');
              textcolor(lightgreen);readln(pass);
              for up := 1 to Length(pass)do
                pass[up] := upcase(pass[up]);
              Assign(arq1, 'Utilizador.dat');
              Verifica_Util(arq1, user, pass);
              if(Verifica_Util(arq1, user, pass) = true)then
                Begin
                    Progress_Bar;
                    menu:
                    Clrscr;
                    Textcolor(blue);
                    Textbackground(lightcyan);
                    Gotoxy(33,3);Writeln ('_MENU PRINCIPAL_');
                    Textcolor(white);
                    Textbackground(blue);
                    getdate(dia, mes, ano, weekday);
                    gettime(hora, minuto, segundo, msegundo);
```

```pascal
gotoxy(5,5);writeln('My ID: ', admin.id);
gotoxy(38,5);Writeln(hora,':',minuto);
gotoxy(64,5);Writeln(ano,'/', mesdoano[mes],'/',dia);
Gotoxy(25,12);Writeln('[1] GERENCIAR FUNCIONARIOS');
Gotoxy(25,13);Writeln('[2] FOLHA DE AJUSTE SALARIAL');
Gotoxy(25,14);writeln('[3] RELATORIO');
Gotoxy(25,15);Writeln('[4] VOLTAR AO MENU INICIAL');
Gotoxy(25,16);writeln('-------------------------');
gotoxy(25,17);write('>>> ');
readln(option);
case(option)of
   1: Begin
         menufunc:
         Clrscr;
         Textcolor(blue);
         Textbackground(lightcyan);
         Gotoxy(30,3);
         Writeln ('_MENU FUNCIONARIO_');
         Textcolor(white);
         Textbackground(blue);
         Gotoxy(20,8);Writeln('[1] REGISTRAR FUNCIONARIO');
         Gotoxy(20,9);Writeln('[2] EDITAR PERFIL DO FUNCIONARIO');
         Gotoxy(20,10);Writeln('[3] REMOVER PERFIL DO FUNCIONARIO');
         Gotoxy(20,11);Writeln('[4] PESQUISAR FUNCIONARIO POR ID');
         Gotoxy(20,12);Writeln('[5] PESQUISAR FUNCIONARIO POR NOME');
         Gotoxy(20,13);Writeln('[6] VER PERFIL DE TODOS FUNCIONARIOS');
         Gotoxy(20,14);Writeln('[7] VOLTAR');
         gotoxy(20,15);WriteLn('------------------------------------');
         gotoxy(20,16);write('>>> ');
         readln(option);
         case(option)Of
           1: Begin
                 Assign(arq2, 'Funcionario.dat');
                 Existe_Func(arq2);
                 if(Existe_Func(arq2) = true)then
                   Begin
                     ClrScr;
                     Assign(arq2, 'Funcionario.dat');
                     Adicionar_Func(arq2);
                     Progress_Bar;
                     ClrScr;
                     textcolor(lightgreen);gotoxy(20,15);writeln('Funcionario registrado com sucesso.');
                     textcolor(white);gotoxy(20,16);writeln('Clique enter para voltar ao menu');
                     readln; goto menufunc;
                   End
                 Else
                   Begin
                     ClrScr;
                     Assign(arq2, 'Funcionario.dat');
                     Registro_Func(arq2);
                     ClrScr;
                     textcolor(lightgreen);gotoxy(20,15);writeln('Funcionario registrado com sucesso.');
                     textcolor(white);gotoxy(20,16);writeln('Clique enter para voltar ao menu');
                     readln; goto menufunc;
                   end;
              end;
           2: Begin
                 Assign(arq2, 'Funcionario.dat');
                 Existe_Func(arq2);
                 if(Existe_Func(arq2) = true) then
                   Begin
                     ClrScr;
                     Assign(arq2, 'Funcionario.dat');
                     AlterarPerfil_Func(arq2, idF, nomefunc);
                     goto menufunc;
                   end
                 Else
                   Begin
                     Progress_Bar;
                     ClrScr;
                     textcolor(lightred);gotoxy(5,15);writeln('Sem registro de funcionarios em nosso sistema.');
                     textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar ao menu');
                     readln; goto menufunc;
                   end;
              end;
```

```pascal
  3: Begin
        Assign(arq2, 'Funcionario.dat');
        Existe_Func(arq2);
        if(Existe_Func(arq2) = true)then
          Begin
            ClrScr;
            Assign(arq2, 'Funcionario.dat');
            Eliminar_Func(arq2, idF, nomefunc);
            goto menufunc;
          End
        else
          Begin
            Progress_Bar;
            ClrScr;
            textcolor(lightred);gotoxy(20,15);writeln('Sem registro de funcionarios em nosso sistema. ')
            textcolor(white);gotoxy(20,16);writeln('Clique enter para voltar ao menu');
            readln; goto menufunc;
          end;
    end;
  4: Begin
        Assign(arq2, 'Funcionario.dat');
        Existe_Func(arq2);
        if(Existe_Func(arq2) = true)then
          Begin
            ClrScr;
            Assign(arq2, 'Funcionario.dat');
            PesquisaID_Func(arq2, idF);
            goto menufunc;
          End
        Else
          Begin
            Progress_Bar;
            ClrScr;
            textcolor(lightred);gotoxy(20,15);writeln('Sem registro de funcionarios em nosso sistema. ')
            textcolor(white);gotoxy(20,16);writeln('Clique enter para voltar ao menu');
            readln; goto menufunc;
          end;
    end;
  5: Begin
        Assign(arq2, 'Funcionario.dat');
        Existe_Func(arq2);
        if(Existe_Func(arq2) = true)then
          Begin
            ClrScr;
            Assign(arq2, 'Funcionario.dat');
            PesquisaNome_Func(arq2, nomefunc);
            goto menufunc;
          End
        Else
          Begin
            Progress_Bar;
            ClrScr;
            textcolor(lightred);gotoxy(5,15);writeln('Sem registro de funcionarios em nosso sistema.');
            textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar ao menu');
            readln; goto menufunc;
          end;
    end;
  6: Begin
        Assign(arq2, 'Funcionario.dat');
        Existe_Func(arq2);
        if(Existe_Func(arq2) = true)then
          Begin
            ClrScr;
            Assign(arq2, 'Funcionario.dat');
            listar_Func(arq2);
            writeln('Clique enter para voltar ao menu.');
            readln; goto menufunc;
          End
        Else
          Begin
            Progress_Bar;
            ClrScr;
            textcolor(lightred);gotoxy(5,15);writeln('Sem registro de funcionarios em nosso sistema. ');
            textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar ao menu');
            readln; goto menufunc;
```

```pascal
                                          end;
                                end;
                    7: goto menu;
                  else goto menufunc;
                end;
              End;
        2: Begin
              ClrScr;
              Assign(arq2, 'Funcionario.dat');
              Existe_Func(arq2);
              if(Existe_Func(arq2) = true)then
                Begin
                  ClrScr;
                  Assign(arq2, 'Funcionario.dat');
                  wage_Func(arq2);
                  goto menu;
                end
              Else
                Begin
                  Progress_Bar;
                  ClrScr;
                  textcolor(lightred);gotoxy(5,15);writeln('Sem registro de funcionarios em nosso sistema.');
                  textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar ao menu');
                  readln; goto menu;
                end;
            end;
        3: Begin
              ClrScr;
              Assign(arq2, 'Funcionario.dat');
              Existe_Func(arq2);
              if(Existe_Func(arq2) = true)then
                Begin
                  ClrScr;
                  Assign(arq2, 'Funcionario.dat');
                  Relatorio(arq2);
                  goto menu;
                end
              Else
                Begin
                  Progress_Bar;
                  ClrScr;
                  textcolor(lightred);gotoxy(5,15);writeln('Sem registro de funcionarios em nosso sistema.');
                  textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar ao menu');
                  readln; goto menu;
                end;
            end;
        4: GOTO start
        else goto menu;
      end;
    End
  Else
    Begin
      gotoxy(25,12);textcolor(lightred);writeln('Username ou password incorrecto.');
      gotoxy(25,13);textcolor(white);writeln('Tentar novamente?[S/N]');
      tecla := readkey;
      tecla := upcase(tecla);
      if(tecla = 'S') then goto login
      else
        Begin
          If(tecla = 'N')then goto start
          else RunError;
        end;
    end;
  end
else
  Begin
    Progress_Bar;
    ClrScr;
    gotoxy(5,12);textcolor(lightred);writeln('Sem administradores registrados');
    textcolor(white);gotoxy(5,13);writeln('Click Enter para voltar ao menu inicial.');
    readln;
    Goto start;
  end;
end;
2: Begin
```

```pascal
      Assign(arq1, 'Utilizador.dat');
      Existe_Util(arq1);
      if(Existe_Util(arq1) = true)then
        Begin
          ClrScr;
          Assign(arq1, 'Utilizador.dat');
          Adicionar_Util(arq1);
          Progress_Bar;
          ClrScr;
          writeln('Administrador registrado com sucesso.');
          writeln('Clique enter para voltar.');
          readln; goto start;
        End
      Else
        Begin
          ClrScr;
          Assign(arq1, 'Utilizador.dat');
          Registro_Util(arq1);
          Progress_Bar;
          ClrScr;
          writeln('Administrador registrado com sucesso.');
          writeln('Clique enter para voltar.');
          readln; goto start;
        end;
    end;
3: Begin
      opcoes:
      Assign(arq1, 'Utilizador.dat');
      Existe_Util(arq1);
      if(Existe_Util(arq1) = True)Then
        Begin
          ClrScr;
          TEXTCOLOR(BLUE);
          TEXTBACKGROUND(LIGHTCYAN);
          gotoxy(22,2);writeln('_OPCOES PARA  O ADMINITRADOR DO SISTEMA_');
          TEXTCOLOR(WHITE);
          TEXTBACKGROUND(BLUE);
          gotoxy(15,10);writeln('  [1] Consultar perfil do administrador   ');
          gotoxy(15,11);WriteLn('  [2] Remover perfil do administrador     ');
          gotoxy(15,12);writeln('  [3] Alterar perfi do administrador      ');
          gotoxy(15,13);writeln('  [4] Voltar ao menu incicial             ');
          gotoxy(15,14);writeln('==========================================');
          gotoxy(15,15);write('>>> ');
          readln(option);
          case(option)of
            1: Begin
                  ClrScr;
                  textcolor(blue);
                  textbackground(lightcyan);
                  gotoxy(33,3);writeln('_CONSULTAR PERFIL DO ADMINISTRADOR_');
                  textcolor(white);
                  textcolor(lightcyan);
                  GOTOXY(10,7);write('ID do administrador: ');
                  textcolor(yellow);readln(idA);textcolor(white);
                  gotoxy(10,8);write('Nome do administrador: ');
                  textcolor(yellow);readln(nomeadmin);textcolor(white);
                  for up := 1 to Length(nomeadmin) do
                    nomeadmin[up] := upcase(nomeadmin[up]);
                  gotoxy(10,9);write('Password: ');textcolor(yellow);
                  readln(passadmin);textcolor(white);
                  for up := 1 to Length(passadmin)do
                    passadmin[up] := upcase(passadmin[up]);
                    Assign(arq1, 'Utilizador.dat');
                    reset(arq1);
                    for i := 0 to FileSize(arq1)-1 do
                      Begin
                        Seek(arq1, i);
                        Read(arq1, admin);
                        if(admin.id = idA) and (admin.nome = nomeadmin) and (admin.password = passadmin)then
                          Begin
                            with admin do
                              Begin
                                Progress_Bar;
                                ClrScr;
                                textcolor(blue);
```

```pascal
                         textbackground(lightcyan);
                         gotoxy(28,3);writeln('_DADOS PESSOAIS_');
                         textcolor(white);
                         textbackground(blue);
                         gotoxy(10,7);writeln('ID: ', id);
                         gotoxy(10,8);writeln('NOME: ', nome);
                         gotoxy(10,9);writeln('DATA DE NASCIMENTO: ', nasc);
                         gotoxy(10,10);writeln('BILHETE DE IDENTIDADE: ', bi);
                         gotoxy(10,11);writeln('SEXO: ', sexo);
                         textcolor(blue);
                         textbackground(lightcyan);
                         gotoxy(24,13);writeln('_DADOS DE ACESSO AO SISTEMA_');
                         TEXTCOLOR(white);
                         textbackground(blue);
                         gotoxy(10,16);writeln('Username: ', username);
                         gotoxy(10,17);writeln('Password: ', password);
                      end;
                 end
               Else
                 Begin
                    Progress_Bar;
                    ClrScr;
                    textcolor(lightred);gotoxy(2,5);writeln('Os dados introduzidos nao foram encontrados em nosso sist
                    textcolor(white);gotoxy(2,6);writeln('Clique enter para voltar');
                    readln; goto opcoes;
                 end;
              end;
           Close(arq1);
        end;
   2: Begin
        ClrScr;
        textcolor(blue);
        textbackground(lightcyan);
        gotoxy(33,3);writeln('_REMOVER PERFIL DO ADMINISTRADOR_');
        textcolor(white);
        textcolor(lightcyan);
        GOTOXY(10,7);write('ID do administrador: ');
        textcolor(yellow);readln(idA);textcolor(white);
        gotoxy(10,8);write('Nome do administrador: ');
        textcolor(yellow);readln(nomeadmin);textcolor(white);
        for up := 1 to Length(nomeadmin) do
          nomeadmin[up] := upcase(nomeadmin[up]);
        gotoxy(10,9);write('Password: ');textcolor(yellow);
        readln(passadmin);textcolor(white);
        for up := 1 to Length(passadmin)do
          passadmin[up] := upcase(passadmin[up]);
        Assign(arq1, 'Utilizador.dat');
        reset(arq1);
        FOR i := 0 to FileSize(arq1)-1 do
          Begin
            Seek(arq1, i);
            Read(arq1, admin);
            if(admin.id = idA) and (admin.nome = nomeadmin) and (admin.password = passadmin)then
              Begin
                close(arq1);
                textcolor(yellow);gotoxy(10,10);writeln('Tem certeza de que deseja remover administrador[S/N]?');
                tecla := readkey;
                tecla := Upcase(tecla);
                if(tecla = 'S')then
                  Begin
                    Reset(arq1);
                    Seek(arq1, i+1);
                    while not Eof(arq1)do
                      Begin
                        Read(arq1, admin);
                        Seek(arq1, FilePos(arq1)-2);
                        write(arq1, admin);
                        Seek(arq1, FilePos(arq1)+1);
                      end;
                    Seek(arq1, FilePos(arq1)-1);
                    Truncate(arq1);
                    Close(arq1);
                    Progress_Bar;
                    ClrScr;
                    gotoxy(5,10);textcolor(lightgreen);writeln('Administrador foi removido com sucesso.');
```

```pascal
                      gotoxy(5,11);textcolor(white);writeln('Clique enter para voltar.');
                      readln; goto opcoes;
                    end
                  Else
                    Begin
                      if(tecla = 'N')then
                        Begin
                          Progress_Bar;
                          ClrScr;
                          gotoxy(5,10);writeln('Operacao cancelada.');
                          gotoxy(5,11);Writeln('Click enter para voltar.');
                          Readln;
                          goto opcoes;
                        end
                      else RunError;
                    end;
              end
            else
              Begin
                Progress_Bar;
                ClrScr;
                textcolor(lightred);gotoxy(2,5);writeln('Os dados introduzidos nao foram encontrados em nosso sistem
                textcolor(white);gotoxy(2,6);writeln('Clique enter para voltar');
                readln; goto opcoes;
              end;
          end;


    end;
3: Begin
       apa:
       ClrScr;
       textcolor(blue);
       textbackground(lightcyan);
       gotoxy(33,3);writeln('_ALTERAR PERFIL DO ADMINISTRADOR_');
       textcolor(white);
       textcolor(lightcyan);
       GOTOXY(10,7);writeln('[1] Alterar dados pessoais');
       gotoxy(10,8);writeln('[2] Alterar dados de acesso ao sistema');
       gotoxy(10,9);writeln('[3] Voltar');
       gotoxy(10,10);writeln('-------------------------------------');
       gotoxy(10,11);write('>>> ');
       readln(option);
       case(option)of
         1: Begin
                ClrScr;
                textcolor(blue);
                textbackground(lightcyan);
                gotoxy(33,3);writeln('_ALTERAR PERFIL DO ADMINISTRADOR_');
                textcolor(white);
                textcolor(lightcyan);
                gotoxy(1,6);textcolor(yellow);writeln('NOTA: A data de nascimento, sexo e o nº de B.I sao dados que
                gotoxy(10,8);writeln('Nome do administrador: ');textcolor(yellow);
                readln(nomeadmin);textcolor(white);
                for up := 1 to Length(nomeadmin)do
                  nomeadmin[up] := Upcase(nomeadmin[up]);
                gotoxy(10,9);write('Password: ');textcolor(yellow);
                readln(passadmin);textcolor(white);
                for up := 1 to Length(passadmin)do
                  passadmin[up] := upcase(passadmin[up]);
                Assign(arq1, 'Utilizador.dat');
                Reset(arq1);
                if(admin.nome = nomeadmin) and (admin.password = passadmin)then
                  Begin
                    ClrScr;
                    textcolor(blue);
                    textbackground(lightcyan);
                    gotoxy(33,3);writeln('_ALTERAR PERFIL DO ADMINISTRADOR_');
                    textcolor(white);
                    textcolor(lightcyan);
                    gotoxy(10,7);write('Nome completo: ');
                    textcolor(yellow);readln(admin.nome);textcolor(white);
                    for up := 1 to Length(admin.nome)do
                    admin.nome[up] := Upcase(admin.nome[up]);
                    Assign(arq1, 'Utilizador.dat');
                    Reset(arq1);
```

```pascal
                        write(arq1, admin);
                        close(arq1);
                        Progress_Bar;
                        ClrScr;
                        gotoxy(10,8);textcolor(lightgreen);writeln('Dados alterados com sucesso.');
                        gotoxy(10,9);textcolor(white);writeln('Click enter para voltar.');
                        readln;
                        goto apa;
                      end
                    Else
                      Begin
                        Progress_Bar;
                        ClrScr;
                        gotoxy(5,15);textcolor(lightred);writeln('Os dados introduzudos nao foram encontrados em nosso s
                        gotoxy(5,16);textcolor(white);writeln('Clique enter para voltar.');
                        readln; goto apa;
                      end;
                  end;
              2: Begin
                    ClrScr;
                    textcolor(blue);
                    textbackground(lightcyan);
                    gotoxy(33,3);writeln('_ALTERAR DADOS DE ACESSO AO SISTEMA_');
                    textcolor(white);
                    textbackground(blue);
                    GOTOXY(10,7);write('Nome: ');textcolor(yellow);
                    readln(nomeadmin);textcolor(white);
                    for up := 1 to Length(nomeadmin)do
                      nomeadmin[up] := Upcase(nomeadmin[up]);
                    gotoxy(10,7);write('Password: ');textcolor(yellow);
                    readln(passadmin);textcolor(white);
                    for up := 1 to Length(passadmin) do
                      nomeadmin[up] := Upcase(nomeadmin[up]);
                    if(admin.nome = nomeadmin) and (admin.password = passadmin) Then
                      Begin
                        textcolor(blue);
                        textbackground(lightcyan);
                        gotoxy(33,3);writeln('_ALTERAR DADOS DE ACESSO AO SISTEMA_');
                        textcolor(white);
                        textbackground(blue);
                        gotoxy(5,6);textcolor(yellow);writeln('Introduza novos dados.');
                        gotoxy(10,8);write('Username: ');textcolor(yellow);
                        readln(admin.username);textcolor(white);
                        for up := 1 to Length(admin.username)do
                          admin.nome[up] := Upcase(admin.nome[up]);
                        gotoxy(10,9);write('Password: ');textcolor(yellow);
                        readln(admin.password);textcolor(white);
                        Assign(arq1, 'Utilizador.dat');
                        Reset(arq1);
                        write(arq1, admin);
                        Close(arq1);
                        Progress_Bar;
                        ClrScr;
                        textcolor(lightgreen);gotoxy(10,8);writeln('Dados alterados com sucesso.');
                        gotoxy(10,9);textcolor(white);writeln('Click enter para voltar.');
                        readln;goto apa;
                      End
                    Else
                      Begin
                        Progress_Bar;
                        ClrScr;
                        gotoxy(5,15);textcolor(lightred);writeln('Os dados introduzudos nao foram encontrados em nosso s
                        gotoxy(5,16);textcolor(white);writeln('Clique enter para voltar.');
                        readln; goto apa;
                      end;
                  end;
              3: goto opcoes
            else goto apa;
          end;
        end;
      4: goto start
    else goto opcoes;
  end;
End
Else
```

```pascal
          Begin
            Progress_Bar;
            ClrScr;
            textcolor(lightred);gotoxy(5,15);writeln('Sem administrador(es) registrado(s).');
            textcolor(white);gotoxy(5,16);writeln('Clique enter para voltar.');
            readln; goto start;
          end;
      end;
    4: exit;
    else goto start;
  end;
end.
```

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