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Const
  Maxstack=10;
Type
  Stacktype=Record
  Elments:Array[1..Maxstack] Of Char;
  Top:0..Maxstack;
End;
Var
  Overflow,Underflow:Boolean;
  Stack:Stacktype;
  Ch,I:Integer;
  Element,Del,Popelment:Char;
  (***)إجراء تكوين المكسد(***)
Procedure Creatstack(Var Stack:Stacktype);
Begin
  Stack.Top:=0;
End;
  (***)إجراء تدمير المكسد(***)
Procedure Deletestack(Var Stack:Stacktype);
Begin
  Stack.Top:=0;
End;
  (***)دالة التأكد من إن المكسد فارغ(***)
Function Emptystack(Stack:Stacktype):Boolean;
Begin
  Emptystack:=(Stack.Top=0);
End;
  (***)دالة التأكد من إن المكسد ممتلئ(***)
Function Fullstack(Stack:Stacktype):Boolean;
  Begin
  Fullstack:=(Stack.Top=Maxstack);
  End;
  (***)إجراء الإضافة للمكسد(***)
Procedure Push(Var Stack:Stacktype;Newelement:Char);
  Begin
  If Fullstack(Stack) Then
    Overflow:=True
  Else
    Begin
      Overflow:=False;
      Stack.Top:=Stack.Top+1;
      Stack.Elments[Stack.Top]:=Newelement;
    End;
  End;

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End;
End;
(*****إجراء السحب من المكسد***** )
Procedure Pop(Var Stack:Stacktype;Var Popelment:Char);
Begin
  If Emptystack(Stack) Then
    Underflow:=True
  Else
    Begin
      Underflow:=False;
      Popelment:=Stack.Elments[Stack.Top];
      Stack.Top:=Stack.Top-1;
    End;
  End;
End;
(*****البرنامج الرئيسي***** )
Begin(* Main Program *)
  Creatstack(Stack);
  Repeat
    Writeln(' 1:Push Into Stack');
    Writeln(' 2>Delete Stack ');
    Writeln(' 3:Pop From Stack ');
    Writeln(' 4:Exit ');
    Writeln('Enetr One Choic:>>');
    Readln(Ch);
  Case Ch Of
    1:Begin
      Writeln('Enter ',Maxstack,'Elments:');
      For I:=1 To Maxstack Do
        Begin
          Readln(Element);
          Push(Stack,Element);
        End;
      End;
    2:Begin
      If Emptystack(Stack) Then Writeln('Stack Is Empty')
      Else
        Begin
          Writeln('Are Yuor Sure Delete Stack Press Y To Delet Or Press N To Cangle');
          Readln(Del);
          If (Del='Y') Or (Del='y') Then Deletestack(Stack);
        End;
      End;
  End;
End;

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3:Begin
  If Emptystack(Stack) Then Writeln('Stack Is Empty')
  Else
    For I:=1 To Maxstack Do
      Begin
        Pop(Stack,Popelment);
        Writeln(Popelment)
      End;
    End;
  End;(*End Case*)
  Until Ch=4;
End.
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