**PONTIFICIA UNIVERSIDAD CATOLICA MADRE Y MAESTRA**

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**Nombre:**

Félix Alejandro Guzmán           2014 - 0565

**Materia:**

ST-ISC-314-T-001 Programación 3

**Profesor:**

Juan R. Núñez P.

**Practica sobre:**

Sintaxis Abstracta

**Fecha de Entrega:**

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# Sources.cm

Group is   
  
absyn.sml  
prabsyn.sml  
errormsg.sml  
table.sig  
table.sml  
symbol.sml  
parse.sml  
tiger.lex  
tiger.grm  
$/smlnj-lib.cm  
$/ml-yacc-lib.cm  
$/basis.cm

# Test.tig

let  
    type a = int  
    type b = string  
    var x := 5  
    type c = a  
    var y := 6  
in  
    row [ 5 ]  
end

# Test1.tig

/\* an array type and an array variable \*/  
let  
    type  arrtype = array of int  
    var arr1:arrtype := arrtype [10] of 0  
in  
    arr1  
end

# Queens.tig

/\* A program to solve the 8-queens problem \*/  
  
let  
    var N := 8  
  
    type intArray = array of int  
  
    var row := intArray [ N ] of 0  
    var col := intArray [ N ] of 0  
    var diag1 := intArray [N+N-1] of 0  
    var diag2 := intArray [N+N-1] of 0  
  
    function printboard() =  
       (for i := 0 to N-1  
     do (for j := 0 to N-1   
          do print(if col[i]=j then " O" else " .");  
         print("\n"));  
         print("\n"))  
  
    function try(c:int) =   
( /\*  for i:= 0 to c do print("."); print("\n"); flush();\*/  
     if c=N  
     then printboard()  
     else for r := 0 to N-1  
       do if row[r]=0 & diag1[r+c]=0 & diag2[r+7-c]=0  
               then (row[r]:=1; diag1[r+c]:=1; diag2[r+7-c]:=1;  
                 col[c]:=r;  
                     try(c+1);  
             row[r]:=0; diag1[r+c]:=0; diag2[r+7-c]:=0)  
  
)  
 in try(0)  
end

