

PONTIFICIA UNIVERSIDAD CATOLICA MADRE Y MAESTRA



Nombre:

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Materia:

ST-ISC-314-T-001 Programación 3

Profesor:

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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 " 0" 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
```

```
Standard ML of New Jersey
binfile format error: bad magic number
[compiling (sources.cm):tiger.lex.sml]
[code: 133411, data: 607, env: 3046 bytes]
binfile format error: bad magic number
[compiling (sources.cm):tiger.grm.sml]
[code: 60196, data: 4272, env: 1729 bytes]
binfile format error: bad magic number
[compiling (sources.cm):parse.sml]
[code: 5757, data: 85, env: 124 bytes]
[New bindings added.]
- Parse.parse "test.tig"
=
;
val it =
  LetExp
    {body=SeqExp [(#,#)],
     decs=[TypeDec [#],VarDec {escape=#,init=#,name=#,pos=#,typ=#},
           TypeDec [#],VarDec {escape=#,init=#,name=#,pos=#,typ=#}],pos=2}
  : Absyn.exp
- Parse.parse "test1.tig";
val it =
  LetExp
    {body=SeqExp [(#,#)],
     decs=[TypeDec [#],VarDec {escape=#,init=#,name=#,pos=#,typ=#}],pos=44}
  : Absyn.exp
- Parse.parse "queens.tig";
val it =
  LetExp
    {body=SeqExp [(#,#)],
     decs=[TypeDec [],VarDec {escape=#,init=#,name=#,pos=#,typ=#},TypeDec [#],
           VarDec {escape=#,init=#,name=#,pos=#,typ=#},TypeDec [],
           VarDec {escape=#,init=#,name=#,pos=#,typ=#},TypeDec [],
           VarDec {escape=#,init=#,name=#,pos=#,typ=#},TypeDec [],
           VarDec {escape=#,init=#,name=#,pos=#,typ=#},TypeDec [],
           FunctionDec [#],...],pos=49} : Absyn.exp
-

```