

# Project4 : Compiler function checklist

學號： \_\_\_\_\_

姓名： \_\_\_\_\_

- ☐ Filter out comments.
- ☐ Use the longest-match rule in scanning
- ☐ check for duplicated declarations.
- ☐ variables of integer type.
- ☐ variables of real type.
- ☐ variables of simple array types, such as
  - array [ 23 .. 57 ] of integer
  - array [ 12 .. 34 ] of real
- ☐ variables of multi-dimension arrays, such as
  - array [ 23 .. 57 ] of array [ 12 .. 34 ] of integer
  - array [ 12 .. 34 ] of array [ 23 .. 57 ] of real
- ☐ Addition and subtraction operations.
- ☐ Multiplication and division operations.
- ☐ Comparision operations.
- ☐ Evaluate constant expressions in the compiler.
- ☐ assignment statements of simple types (integer and real)
- ☐ assignment of 1-dimensional arrays
- ☐ assignment of multi-dimensional arrays
- ☐ check out-of-bound array indices at compile time
- ☐ Generate code to check out-of-bound array indices at run time
- ☐ simple if statements
- ☐ simple while loops
- ☐ nested if statements
- ☐ nested while loops
- ☐ arbitrary combination of assignment statements, if statements, and while loops
- ☐ subprograms (procedures and functions) without parameters and without return values
- ☐ recursive subprograms without parameters and without return values.
- ☐ subprograms with (integer and real) parameters and with (integer and real) return values
- ☐ recursive subprograms with (integer and real) parameters and with (integer and real) return values
- ☐ PrintInt, PrintReal, and PrintString.
- ☐ Check if a variable is initialized.
- ☐ There could be constant folding of various degrees of difficulty.