

Compiler Project 4

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Part 1. Code generation

1) Assignment statements

File: codegen.c

Function: genStmt

2) Arithmetic expressions

File: codegen.c

Function: genExpr, genExprRelated

3) Control statements: while, if-then-else

File: codegen.c

Function: genWhileStmt, genIfStmt

4) Parameterless procedure calls

File: codegen.c

Function: genFuncCall

5) **Read** and **Write** I/O calls (See Appendix I)

File: codegen.c

Function:

Read: genFuncCall

Write: genWrite

BONUS

6) Short-circuit boolean expressions

File: codegen.c

Function: genExpr, genExprRelated

7) Variable initializations

File: codegen.c

Function: genGlobalVarDecl, genLocalVarDecl, genVarDeclInit

8) Procedure and function calls with parameters

File: codegen.c

Function: genFuncCall

9) For loops

File: codegen.c

Function: genForStmt

10) Multiple dimensional arrays

File: codegen.c

Function: genExprRelated

11) Implicit type conversions

File: codegen.c

Function: genIntBinaryOp, genFloatBinaryOp, genExpr

Part 2. Implement one optimization for your compiler

Constant folding

File: semanticAnalysis.c

Function: evaluateExprValue