

CSC488 Assignment 5 Documentation

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New Classes

src/compiler488/codegen/Instructions.java

- This Class is used to keep track of all the instructions in list and later use to push the values into memory.

Code Generator Design

- Our code generator for A5 uses a similar recursive pattern as the Semantic checker that we implemented in A3. Every class has a doCodeGeneration method that performs the code generation in each class, and will automatically check its type and pushes the value onto the stack for code generation when call.

Changes since A4

- There are very few changes between the assignment 4 design template and the implementation of the code generation for assignment 5.
- Added additional fields and methods to symbol table related classes to accommodate the code generation extension, such as lexical level, and order number to keep track of the scope of the content.
- Changed comparison operator to use NOT and SWAP instead of pushing the values twice in the A4DesignTemplate.

Who did what

- Ou Ye - Test cases and implementation of the code generation methods.
- Zixuan - Implementation of the code generation methods
- Theresa - Implementation of the code generation methods
- Grzegorz - Worked on additional test cases and reviewed code for errors.
- Lawrence - Implementation of code generation methods