

Be the Compiler

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Assignment 0: The Team (working)

Inserted the names in a file and added the output „This is Be the Compiler Selfie“.

Assignment 1: Bitwise Shift Instructions (working)

Implemented the 4 bitwise shift instructions in the mips emulator to interpret the assembler code for this instructions.

Assignment 2: Bitwise Shift Operators (Scanning, Parsing) (working)

Extended the scanner and parser to add << and >> operators. Changed grammar accordingly.

Assignment 3: Bitwise Shift Operators (Code Generation, Self-Compilation) (working)

Added mips code generation and replaced all left and right shift operations by the operators.

Assignment 4: Constant Folding (working)

Added Constant Folding by using an Constant Folding Attribute to delay the code generation.

Assignment 5: Arrays (partially working)

Added support for global and local arrays, parameters not working. Extended the grammar.

Assignment 6: Two-Dimensional Arrays (partially working)

Added support for two-dimensional arrays. Only global and local are working. Extended the grammar

Assignment 7: Struct Declarations (not working)

Assignment 8: Struct Access (not working)

Assignment 9: Boolean Operators (individual) (working)

Implemented the boolean operators &&, || and !. Extended grammar accordingly. Lazy evaluation works.

Assignment 10: Boolean Operators (algebra) (working)

All combinations of boolean operators in one statement are now supported.

Assignment 11: Memory Management (working)

Implemented free method to deallocate memory so it can be used by malloc again.

Assignment 12: Final Project (working)

Added documentation