C--: C compiler

- Source Language : C
- Implementation Language : Python 3
- Target Language : X86_32 bit

CS 335 - Group 14

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Basic Features

Working features

- Native Data types (integer, character).
- Variables and Expressions
- Control structures
- Conditionals (if, if-then-else)
- Loops (for, while).
- Input/Output statements
- Arrays
- Functions
- Recursion
- User defined types (struct)
- Pointers (single level)
- Math library functions
- String library functions

Not Working

- Boolean data types (can be implemented with int/char)
- Mutual Recursion

Advanced Features

- Floating Point Operations
- Interleaving of declarations and statements which includes declaring variables in the execution line of for loop
- Static Variables (only int)
- Global Variables
- Multilevel Pointers
- Multiple Scoping allowed
- Dynamic memory allocation (malloc)

Future Modifications

- Function Declaration
- Function Overloading
- Support of Union
- Global variables with initialization
- Static variables for data types other than int
- Array Initialization

Thank You!

