



COMPILERS PROJECT

Team 11



Team Members:

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- **Project Overview:**

Simple C language Compiler that is designed to compile basic functions of C language components.

- **Tools and Technologies used:**

- **Flex:** compile lex files
- **Bison:** compile yacc files
- **Cygwin:** generate executable files

- **Production rules:**

- Variables and Constants declaration
- Mathematical expressions (+, -, *, /)
- Assignment statement
- Block structure ({}, ())

- **Quadruples:**

- **MOV 3, R0** [move value 3 to register R0]
- **MOV R0, x** [move value in register R0 to variable x]
- **ADD R0, R1, R2** [add the value in R0 & R1 and move it to R2]
- **SUB R0, R1, R2** [the same as ADD but subtract]
- **MUL R0, R1, R2** [the same as ADD but multiply]
- **DIV R0, R1, R2** [the same as ADD but divide]

- **Work devision:**

- **Omar:** Lex file (Tokens), batch file, testcases
- **Walid:** handle errors, symbol table, quadruples
- **Yahia:** production rules