



PROJECT PLAN. WRITING A C COMPILER. WEEK 2.

Code Synaptics.

December 8, 2022
Compilers, Group 5.

Customer:
Ortigoza Marquez Norberto Jesús

Code Synaptics Team:
Argüello León Dante Moisés (PM)
Carreto Velázquez Miguel Ángel (System Architect)
Pérez Quintana Arturo (System Integrator)
Recinas Barajas Carlos Eduardo (Programmer)
Robledo Aguirre Eduardo (Tester)

NQCC Compiler. Week 2

Objective. Implement the second part of Nora Sandler's C compiler using Elixir, at the end of the second release, we will be able to compile the following unary operators:

Negation (-)

$-5 = 0 - 5$. In other words, it's a regular negative number.

Bitwise complement (~)

This flips every bit in a number. For example:

4 is written as 100 in binary.

The bitwise complement of 100 is 011.

011 in decimal is 3.

So $\sim 4 = 3$.

Logical negation (!)

The boolean "not" operator. This treats 0 as "false" and everything else as "true".

$!0 = 1$

$!(\text{anything else}) = 0$

Project Plan

Date or Period	Activities	Responsible
Oct/28/2022	Meeting in Google Meet to review the new tasks to be done for the week2 updates. An assignment of responsibilities was made	Everyone
Nov/2/2022	Creation of the branch for week2 in the repository.	PM (Argüello León)
Nov/2/2022	Implementation of a beta-update for the code-generation, it will be subject to changes after the lexer and parser updates.	PM (Argüello León)
Nov/2/2022 to Nov/13/2022	Review the Nora Sandler Tutorial for Week 2 and the first update for the lexer.	Everyone
Nov/13/2022	Review of progress and proposed date for carrying out the tasks. An analysis of the implementation of the code generator and the changes that were made to the Lexer are given.	Everyone
Nov/14/2022 to Nov/20/2022	Continue with changes to the lexer and parser, try to implement the grammar, and analyze if new	Programmer (Carlos Recinas), System Architect

		changes to the code generator are required.	(Miguel Carreto), Tester (Eduardo Robledo).
21/Nov/2022		Work meeting in Google Meet to review the changes in the Lexer and the Parser, considering the topics seen in class for the codes. A change of responsibilities in the codes is proposed due to the errors that were being made.	Everyone
21/Nov/2022 26/Nov/2022	to	Make the corrections to the Lexer and the Parser, discard the functions developed previously to implement the correct logic. Implementation of the new grammar to the Parser.	System Integrator (Arturo Quintana) and System Architect (Miguel Carreto).
26/Nov/2022 27/Nov/2022	to	Make the corrections to the code generator, since it obtained many "mov" in the case of nested unary operations and implement the use of 64-bit registers.	PM (Dante Argüello)
28/Nov/2022 5/Dec/2022	to	Implementation of valid and invalid tests, review of the codes and report of test results to the team.	Tester (Eduardo Robledo)
5/Dec/2022		Meeting in Google Meet to verify the operation of the code and define the final deliverables, as well as the possible delivery date.	Everyone
6/Dec/2022		Schedule with the Customer the delivery date.	PM (Dante Argüello)
6/Dec/2022 7/Dec/2022	to	Finishing the documentation, the team members will have to generate their conclusions and their slides for the presentation in Canva.	Everyone
8/Dec/2022 3:00 pm		Presentation to the Customer of the changes made in Week 2.	Everyone