

Aqua-Assembler

This is a 2-pass assembler for general accumulator based computer architecture.

Motivation:

It is difficult to grasp the modern computer architectures without understanding its roots which is the accumulator architecture. The same applies to the working of a 2 pass assembler in detail. By this project we hope to understand the above two in great depths as well as apply to various other things like bit encoding, managing different registers etc.

Prerequisites:

Python installed (preferably 3.7 or higher)

Features:

- Builds Symbol Table, Literal Table, Label Table and Opcode Table after pass 1 into separate files.
- Multiple Error Handling for the Assembly source code.
- Machine Code in Binary language with separated bits to show the encoding.

How to use?

Easy ! Run the 'assemblerMainCode.py' after placing the 'sourceCode.txt' containing the source Assembly program in the same directory. Then check the new files created for the output.

License:

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