CPE301 – SPRING 2019

Design Assignment 1A

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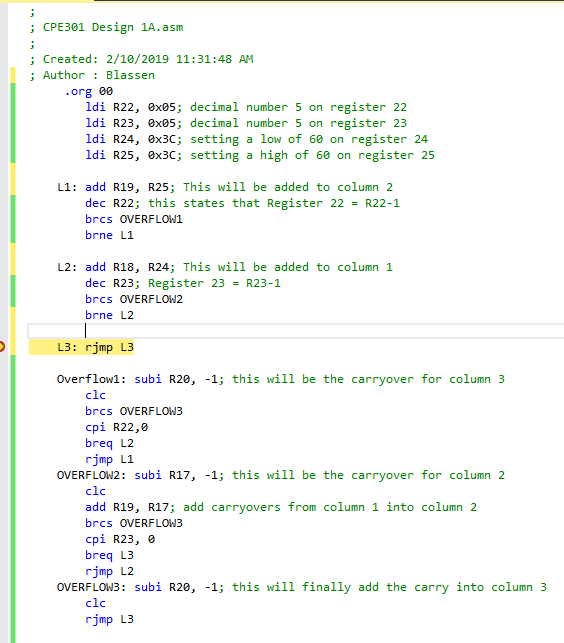
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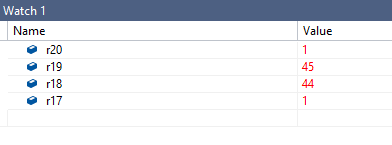
Primary Github address: https://github.com/cdaniel64/blassen

Directory: [Design Assignments/DA1/DA1A/CPE301 Design 1A](https://github.com/cdaniel64/blassen/tree/master/Design%20Assignments/DA1/DA1A/CPE301%20Design%201A)

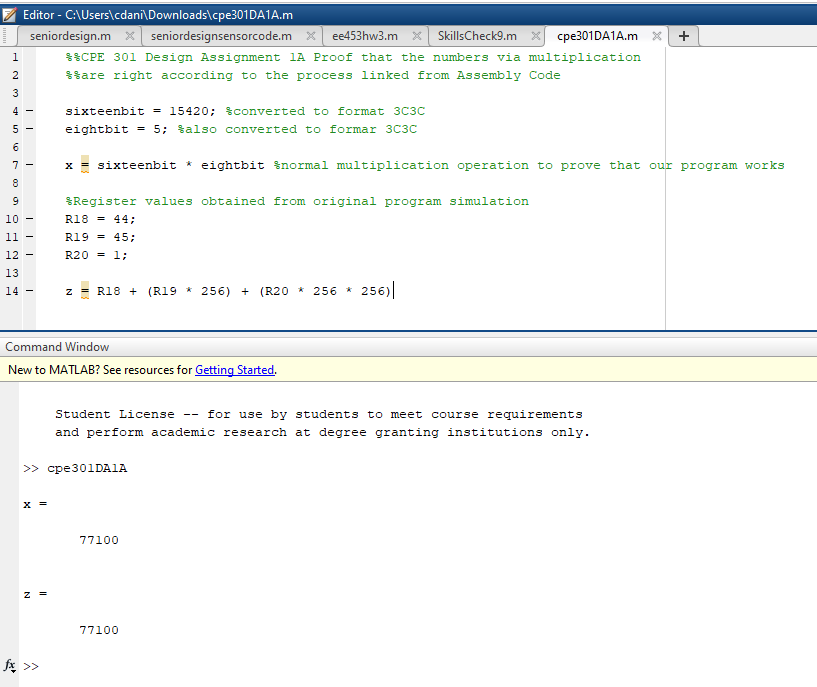
1. **Perform a multiplication of a 16-bit multiplicand with an 8-bit multiplier without using the MUL instruction. Use iterative addition to perform the above multiplication:**

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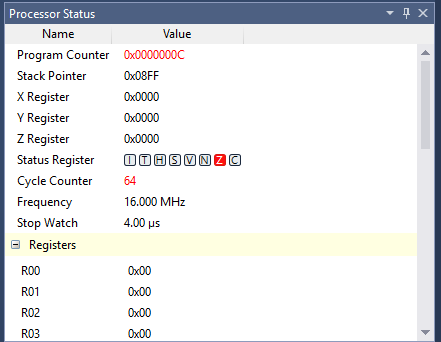
1. **Registers R25:R24 hold the 16-bit multiplicand, R22 hold 8-bit multiplier, and R20:R19:R18 should hold the result**

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1. **Verify your algorithm and answers using the AVR mul instruction or C or any high-level program**

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1. **Determine the execution time @ 16MHz/#cycles of your algorithm using the simulation.**

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