CPSC 240: Computer Organization and Assembly Language
Assignment 04, Fall Semester 2023

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1. Download the “CPSC-240 Assignment04.docx” document.
2. Design the "multiple.asm" program, and use assembly language to realize the function of the following C++ instructions.

```
unsigned short num = 225;
unsigned short mul_15 = 0, other = 0;
if(num % 3 == 0 && num % 5 == 0) {
   mul_15++;
} else {
   other++;
}
```

3. Assemble the "multiple.asm" file and link the "multiple.o" file to get the "multiple" executable file.
4. Run the "multiple" file with the DDD debugger to display the memory of num, as well as the simulation results of mul15 and other.
5. Insert source code (multiple.asm) and simulation results (GDB window) of the memory (num, mul_15, and other) in the document. Write an analysis to verify simulation results.
6. Save the file in pdf format and submit the pdf file to Canvas before 23:59 pm on 10/05/2023.

[Insert multiple.asm source code here]

[Insert multiple simulation result here]

[Insert multiple simulation result verification here]