Lab 3: Loops and Branches

What to Do

Watch the lab video.

Part 1 - Loops (4pts)

1. Download greatest.asm.
2. Make the required changes to make the code find the index of the greatest element in an array of 25 elements.

Part 2 - Function Calls (6 pts)

1. I will give you a file called countDifferents.asm file.
   In the file, you will be given a part of ASM. The code is as follows:
   a. The code starting from *250 does the XOR operation on *300 and *301 and outputs to *302.
   b. The code starting from *400 counts the number of 1s in *450 and outputs the result to *451.
2. Make the countDifferents.asm such that *80 = 43690, *81 = 34952 and *110 holds the number of different bits between *80 and *81 using the functions in 1 A) and 1 B).

Bonus - BNJ (2pts)

1. Generate a function called bnj.asm.
2. The function will work as BZJ but you will jump if *120 == *121. The jumping address is the address indicated in *122. The return address is the one indicated in *110.

Submission

Submit the following files in LMS under the assignment LAB03. Do not zip your files, upload them directly on LMS!

- greatest.asm
- countDifferents.asm
- bnj.asm