**CSE 232 Systems Programming**

**2022 Spring**

**Assignment 2**

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| **Purpose:** The purpose of this assignment is to practice loop instructions and array iterations in M6800 assembly language programming. |

Write an assembly language program which implements the following C code that is a find maximum problem solution implementation:

int A[10] = {8, 14, 6, 16, 5, 5, 10, 16, 4, 11};  
  
 int i = 0;

int max = 0; // Minimum value that you can have as baseline.

while (i < 10) {

if (A[i] > max)

max = A[i];  
 }

Your solution should only apply to values between 0 and 127. Negative and larger numbers aren’t required to be included.

You should treat variable **i** as **XR** in assembler (index register), store variable **max** in the address **70H** and array **A[]** between addresses **A0H-A9H**.

***Bonus:*** There is a small instruction that lets you start your code from a particular line that isn’t listed in instruction sheet on Yulearn. If you use your “investigation” skills well, though, you may find that particular instruction which sets “location counter”. If you succeed on finding and using it in your solution to start your code from a particular line as in the screenshot below (100H i.e.), you will earn some additional points and my admiration. (5 P)

