# Lab 2 (Prelab): Bubble Sort with VerySimpleCPU

## Objective

Introduce array access and looping concepts in assembly, general practices for programming VerySimpleCPU.

## Background

### B1: Bubble Sort

Bubble sort repeatedly compares pairs of elements and swaps them if needed. Bubble sort is organized as a series of passes. In these passes, you compare the 1st and 2nd elements and swap if out of order; then the 2nd and 3rd elements; and so on. At the end of the first pass, the largest element is guaranteed to be at the end of the array.

## What To Do

In this prelab, you will write **low level C** code that sorts the numbers in **ascending order** using **bubble sort.**

1. Download lab2_hi.c file from LMS.
2. Open and analyze the lab2_hi.c file with a text editor. (I suggest you download notepad++.)
3. Create a new file called lab2_low.c
4. Type your codes to the lab2_low.c file.
    a. Every line contains one operation
    b. Use “goto” and labels for branch (no curly bracer {})
    c. Use pointer (*) for indicate direct access (such as a[m] in low level *(a+m) )

## Submission Information

**This is an exercise, there is no submission.**