# CS 200

# Lab 2 Evening

## Problem 1:

Write a function which takes an array of integers of length 10 and returns the second max element. The prototype of this function should be something like this:

int secondMax(int array[], int size);

## Problem 2:

Write a function which takes an array of integers of length 10, as input and returns its average. This question looks pretty straight forward, but there is a little catch.

Since an integer is 4 bytes, most of you might make a mistake, where average will be wrong when the sum of all the integers will exceed 4 bytes (because that will cause an overflow). However, the average of all integers should always be calculated, since it is always going to be less than or equal to max element of the array. Think a little about this before implementing your logic.

## Problem 3:

Write a function which takes two strings as input and returns 1 if second string is a substring of first one. Some valid examples are:

(Apple, ppl), (example, exam), (goto, goto)

Some invalid examples are:

(Apple, Aple), (example, pleh), (goto, gto)

You are only allowed to use the functions for finding length from c++ standard libraries. In case you use strings, you can find the length using string_variable.length(). Otherwise, you can find the string length using strlen(char[]). You will need one of the following include statements:

#include <string>
#include <cstring>

Best of Luck