

Lab 4

Thursday, October 5, 2023

This lab is shorter than usual so you can also discuss assignment 1 problems during the lab.

You will get 1 point for attending the lab, making an effort to work on the problems, and **discussing your work with a lab instructor during the lab.**

If you finish during the lab, demonstrate your working code to a lab instructor and they will give you the full 2 points. If you do not finish during the lab, discuss what you've done with a lab instructor and they will give you an opportunity to finish outside of the lab and attend office hours to demonstrate your solution.

Practice Problem. You do not need to submit solutions for these problems and during the lab the teaching assistants will solve these problems if requested.

Complete the following function that copies the elements of one array into another (since arrays cannot be assigned using the = operator).

```
// array_copy(a, b, n) copies the elements of array a into array b
// requires: the arrays a and b have the same length n
void array_copy(const int a[], int b[], const int n);
```

Assessment Problem. Complete the following function that checks two arrays for equality (since arrays cannot be compared using the == operator).

```
// array_equals(a, b, n) returns true exactly when arrays a and b have
// the exact same elements in the same order
// requires: the arrays a and b have the same length n
bool array_equals(const int a[], const int b[], const int n);
```

In `main` give at least three tests of `array_equals` using at least three separate arrays, two of which should have the same elements. Check that `array_equals` returns the correct value using `assert`.