

# Lab #3

CS-2050 - Section B

Week of February 8, 2021

## 1 Requirements

This lab is intended to test your ability to do pointer arithmetic. You will be provided with a main file in your starter code, but any testing code you produce will not be graded in this lab.

### 1.1 loadGameScores

```
int* loadGameScores(FILE *file, int *startIndex, int *length);
```



**Info:** This function will read **integers representing player counts** into a dynamically allocated array from the given file pointer. The first number in the file should be interpreted as the size of the resulting array, and the second number in the file should be interpreted as **1 + the last index** of the resulting array. This function must check that the call to `malloc()` succeeds, such that the array was successfully allocated.

The starting index of the array must be stored in the `startIndex` variable, and the size of the array must be stored in the `length` variable, such that they both can be used in the calling function. The pointer returned from this function must be offset by the correct amount, such that it can be properly accessed using the `startIndex` variable in the calling function.

### 1.2 freeIntArray

```
void freeIntArray(int **array, int startIndex);
```



**Info:** This function takes a double **int pointer** as well as the starting index of the given array, and frees the memory being pointed to. This function should also set the pointer to *NULL* in the calling function.

## 2 Notice



### Grading:

1. Write required *read from file* function
  - \* 8 points
2. Write required *free array* function
  - \* 4 points



**Notice:**

1. All of your lab submissions must compile under GCC using the `-Wall` and `-Werror` flags to be considered for a grade.
2. You are expected to provide proper documentation in every lab submission, in the form of code comments. For an example of proper lab documentation and a clear description of our expectations, see the lab policy document.