Lab #3

CS-2050 - Section D

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 loadStockPrices

```
float* loadStockPrices(FILE *file, int *startIndex, int *length);
```

Info: This function will read **floats representing yearly stock averages** 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 **the starting 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 freeFloatArray

```
void freeFloatArray(float **array, int startIndex);
```

Info: This function takes a double **float 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.