HW1

4a) This program receives a filename as input which contains text with binary numbers up to 32 bits, separated by carriage returns. The output of the program is the decimal sum of all the numbers.

4b) This program receives a string and an integer from the command line and returns the most frequent occurring substring of that has the length of the input integer.

HW2

This program contains an integer array of length>0 containing positive integers. The return value is the sum of three integers in the array that are closest to 330.

HW3

This program demonstrates using a template to add both integers and strings together.

HW4

This program demonstrates an implementation of a merge sort preformed on a linked list.

HW5

This program utilizes a hash table to implement a spellchecker function based on the dictionary file “dictionary.txt”

HW6

A: This function sorts through a 600+MB file called “BigData.txt” to find the total number of BU IDs present in the file. It then prints the total matches at intervals of 10000000 as well as the final count.

B: Demonstrates the use of a Trie structure with a dictionary file.

C: Finds the longest palindrome within the “BigData.txt” file.

HW7

Creates a static graph of airports a vertices and paths as edges. This program then finds the closest three neighbors to the input vertex (airports that can be visited from the origin within two edge hops)

HW8