**Lab 09: Debugging**

**Part 1:**

Prompt: create a dynamic array implementation of a templated binary tree in C++

ChatGPT Response:

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

**Part 2:**

**A screenshot of a computer

Description automatically generated**

There were no issues while running the code.

**Part 3:**

Attached the file in mail.

**Part 4:**

**Const correctness is as expected. I would have implemented an array of nodes containing the data, left and right child data (containing the array index of the left and right child).**

**In the case of memory efficiency, the generated code doubles the capacity of the array whenever the array has maxed out. This gives rise to the possibility of allotting more memory space than required.**

**For Time Complexity, since accessing array is quick, the code should execute faster than the solution which I would have implemented. But then again, the time and memory tradeoff come into play.**