CS32 HW4 Report

2. The one-argument form of Sequence<Coord>::insert fails because the one-argument insert function requires comparison between input item and exiting item to find the correct position to insert. No comparison function is defined for Coord, so we receive a compiler error.

4 b. First, we need the path argument to pass directory name into the subfile iteration to print out. Second, we need to implement listAll as a recursive function because we don’t know how many layers of directories are there.

5 a. The time complexity is O(N ^ 3) because there are a loop of i with nested loops of j and k, each with a maximum iteration count of N.

5 b. The time complexity is still O(N ^ 3) because the maxiumum iteration count of loop of j is still N.

6 a. The time complexity is O(N ^ 2). When looping through N items in seq1 and seq2, the insert and get function causes N times at most in finding the item or position in the sequence.

6 b. The time complexity is O(N). When looping through N items in seq1 and seq2, the insertBefore function causes constant times in inserting before the head.