

# CTE Skill Certificate Test Performance Documentation

This document must be submitted to the test coordinator at the end of testing each trimester/semester.

Instructor's Name: \_\_\_\_\_ Course: Computer Programming II (C++)  
School: \_\_\_\_\_ Test Number: 830  
# Students in course: \_\_\_\_\_ Date: \_\_\_\_\_  
# Students tested: \_\_\_\_\_  
# Students who passed performance objectives at or above 80%: \_\_\_\_\_

This is to *verify* that the students marked **YES** on performance accomplished the following performance objectives at or above the 80% (moderately to highly skilled) level.

1. Develop advanced applications using input, calculations, output, IF structures, iteration, sub-programs, recursion, arrays, sorting and a database.
2. Develop advanced application projects.
3. Develop advanced applications using object-oriented programming.
4. Demonstrate the ability to search data structures using binary and hash searches comparing the efficiency between sequential and binary searches.
5. Demonstrate the ability to sort data structures using quadratic ( $n^2$ ) and binary ( $n \log n$ ) sorts comparing the efficiency between various sorts using BigO notation.
6. Demonstrate the ability to use random access files in a program.
7. Demonstrate the ability to use linked lists, stacks, queues and binary trees.
8. Create user-defined inherited classes demonstrating overloading techniques.
9. Create an individual program of significant complexity and size (300-500 lines).
10. Compile a portfolio of the individual and group programs developed during the course.
11. Participate in a work-based learning experience such as a job shadow, internship, field trip to a software engineering firm or listened to an industry guest speaker and/or competed in a high school programming contest.

Each performance is documented and kept on file by the teacher for two years.  
(Check the documentation method used)

- Class period summary score sheet
- Recorded and identified in the class grade book

Instructor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_