Inline Function

Implementing a program as a set of functions is good from a software engineering standpoint, but function calls involve execution-time overhead. C++ provides inline functions to help reduce function call overhead. Placing the qualifier inline before a function's return type in the function definition advises the compiler to generate a copy of the function's body code in every place where the function is called (when appropriate) to avoid a function call. This often makes the program larger. The compiler can ignore the inline qualifier and generally does so for all but the smallest functions. Reusable inline functions are typically placed in headers, so that their definitions can be included in each source file that uses them.