

The noexcept Keyword Solutions

noexcept keyword

- What does it mean if a function is declared as noexcept?
 - The function promises not to throw any exceptions
 - If it does throw an exception, the program is terminated immediately
- Does noexcept change the signature of the function?
 - No. Functions cannot be overloaded on whether they are noexcept
- Why is it useful to know whether a function is noexcept?
 - If we are calling a function which is noexcept, we can safely assume it does not throw any exceptions
 - This makes our code simpler

Performance advantages of noexcept

- Are there performance advantages to making a function noexcept?
 - Yes
 - The compiler can generate better optimized code
 - The Standard Library will only call certain operators if they are declared noexcept. Otherwise, slower but safer equivalents will be called

When to use noexcept

- When should noexcept be used
 - If we are certain a function will not throw any exceptions
 - Or we cannot do anything useful if an exception is thrown (automatic termination)