C++11 Knowledge Point

* Chapter 2
  + 2.4.1. References to const
  1. Terminology: const Reference is a Reference to const.Technically speaking, there are no const references.
  + 2.4.2. Pointers to const
  1. It may be helpful to think of pointers and references to const as pointers or references “that think they point or refer to const.”
  2. Like a references to const
  3. const pointers: pointer that is itself const.the address that it holds can not be changed.
  + 2.4.3. Top-Level const
  1. top-level const to indicate that the pointer itself is a const.
  2. pointer can point to a const object，we refer to that const as a low-level const.
  + 2.4.4. constexpr and Constant Expressions
  1. constant expression is an expression whose value cannot change and that can be evaluated at compile time.
  2. Literal Types:the arithmetic, reference, and pointer types are literal types
  3. Variables defined inside a function ordinarily are not stored at a fixed address Hence,we cannot use a constexpr pointer to point to such variables.On the other hand, the address of an object defined outside of any function is a constant expression.
  4. Pointers and constexpr: constexpr specifier applies to the pointer. e.g. const int \*p = nullptr; constexpr int \*q = nullptr;

p is a pointer to const int,q is a const pointer to int.