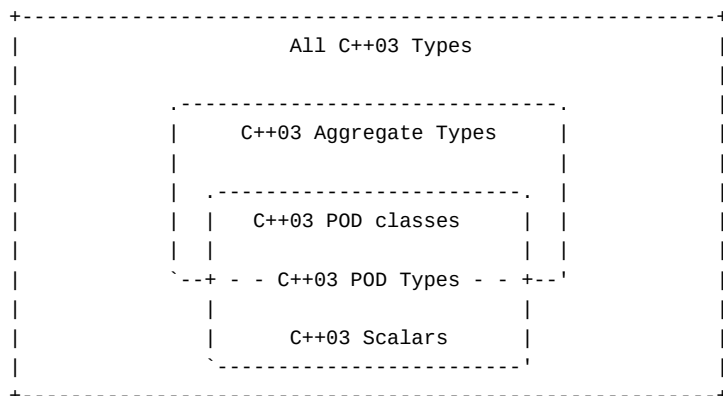


Now that we have classified what kinds of user-defined types are considered aggregate types in C++03, let's step back and appreciate the complete set of C++03 POD types. We begin by observing that all of the scalar types are POD types in every version of C++:



A C++03 scalar is a possibly **const** or **volatile arithmetic type**, enumeration type, pointer type, or pointer-to-member type:

```

    int          i    = { 0 }; // integer
    const short  cs   = { 0 }; // const short
    double       d    = { 0.0 }; // floating point
    enum E { }   e    = { E() }; // enumeration
    char*        p    = { 0 }; // pointer to char
    const char*  pc   = { 0 }; // pointer to const char
    char* const cp = { 0 }; // const pointer to char
    class C; int C::*pm = { 0 }; // pointer to int member data
    void (C::*pmf)() = { 0 }; // pointer to void member function
    
```

As it turns out, scalars can also be initialized using the braced notation in C++03, just not with empty braces. A C++03 **POD-struct** is an **aggregate class**, declared with either the **struct** or **class class key**, that has no non-**POD-struct** members, no non-**POD-union** members, no array members having non-POD elements, no **nonstatic reference** members, and no user-declared copy-assignment operator or destructor:

```

// Class declaration           Is a C++03 POD?
class B0 { };                  // Yes, an empty (aggregate) class is a POD.
class B1 { public: int x; };    // Yes, public data
class B2 { int f(); };         // Yes, private non-virtual function
class B3 { static B1 x; };     // Yes, static members don't matter
struct B4 { ~B4(); };         // No, a destructor cannot be declared.
struct B5 { B5& operator=(const B5&); };
                               // No, copy assignment cannot be declared.
struct B6 { int* x; };         // Yes, pointers are allowed in PODs too.
struct B7 { B5 x; };          // No, any data members must also be PODs.
    
```