C++ Club UK Meeting 127

Gleb Dolgich

2021-04-08

All C++20 core language features with examples

- Oleksandr Koval
 - Reddit

C++20 Range Adaptors and Range Factories

Barry Revzin

Things I should know before starting a C++ developer job

• Reddit

Writing Interfaces: Stay true in booleans

- Radek Vít
 - Reddit

Metalang99: Full-blown preprocessor metaprogramming for pure C

For the horror value...

- Docs
- GitHub

Modern C++ "result" type based on Swift / Rust

- GitHub
- Reddit announcement

See also

- absl::StatusOr
- Boost.Outcome
- P0323. std::expected possibly for C++23

How C++ Resolves a Function Call

- Preshing
 - Reddit

ADL

- Arthur O'Dwyer
- Abseil Tip #49

Don't blindly prefer emplace_back to push_back

- Arthur O'Dwyer
 - Reddit
 - The emplace-new antipattern

C++ Antipatterns

Kayari

Ticket Maps

Anthony Williams

Non-Terminal Variadic Parameters and Default Values

- B. Filipek
 - Reddit

Accessing private members of a friend class from friend function: Which compiler is correct?

- Reddit
- Godbolt

```
1 class Foo {
2     friend class Bar;
3     int x_;
4 };
5
6 class Bar {
7     friend void foobar(Bar b, Foo f) {
8         std::cout << f.x_; // <- Clang: OK; GCC, MSVC: error
9     }
10 };</pre>
```

Modern C++ class members and initializations the right way

- Pranay Kumar
 - Reddit

Guidelines

- Use member initializers in the same order as their declaration
- Prefer in-class member initializer over constant initializations OR over default constructor.
- Don't cast away const, ever!
- Use delegating constructors to represent common actions for all constructors of a class.

The Sad Truth About C++ Copy Elision

- Scott Wolchok
 - Reddit, Reddit

Type-safe Pimpl implementation without overhead

Malte Skarupke