



ripgrep crates/core/main.rs: Code Companion

Reference code for the Application Entry Point lecture. Sections correspond to the lecture document.

Section 1: The Allocator Override

```
// Conditional compilation: only applies when ALL conditions are true
// - target_env = "musl" (building against musl libc)
// - target_pointer_width = "64" (64-bit architecture)
#[cfg(all(target_env = "musl", target_pointer_width = "64"))]
#[global_allocator] // Replaces default allocator for entire program
static ALLOC: tikv_jemallocator::Jemalloc = tikv_jemallocator::Jemalloc;
```

The `#[global_allocator]` attribute designates this static as the memory allocator for all heap allocations. When the `#[cfg]` conditions aren't met, this code doesn't exist in the compiled binary at all—not disabled, literally absent.

Section 2: The Main Function and Exit Code Philosophy

