Stage 2 Codegen Example

Thursday, May 2, 2024   2:45 AM

```
g:int

fn main() -> int {
  let x:int

  entry:
    x = $copy 42
    g = $copy x
    $ret g
}
```

```asm
        .data
        .globl g                    // declare g
        g: .zero 8                  // zero-initialize g
        .text
        .globl main

        main:
          pushq %rbp
          movq %rsp, %rbp
          subq $16, %rsp
          movq $0, -8(%rbp)
          jmp main_entry

        main_entry:
          movq $42, -8(%rbp)
          movq -8(%rbp), %r8        // g = x
          movq %r8, g(%rip)
          movq g(%rip), %rax        // return g
          jmp main_epilogue

        main_epilogue:
          movq %rbp, %rsp
          popq %rbp
          ret
```

prologue

epilogue