rusty

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Introduction





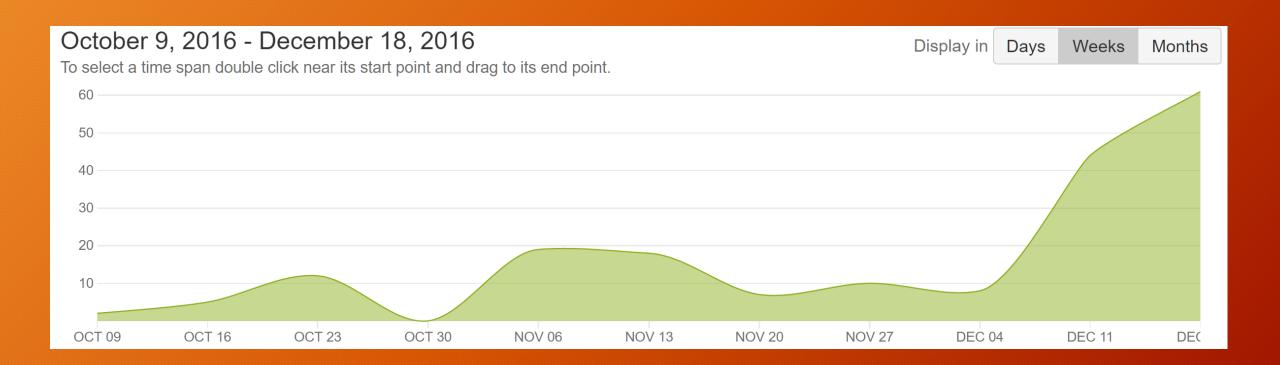




WELL, THAT'S WHAT A
SEGFAULT FEELS LIKE.

DOUBLE-CHECK YOUR
DAMN POINTERS, OKAY?

Project Management



Features



Zero-cost abstractions that help catch data races and segfaults



Heap-allocated arrays and structs provide more flexibility



Scoping rules that support shadowing



Statically and strongly-typed system catches errors at compile-time

Syntax

Basic Functionality

```
fn main() -> int {
    let mut x:int = 0;
    while (x < 5) {
        println(x);
        x = x + 1;
    }
    return 0;
}</pre>
```

Structs

```
fn main() -> int{
    struct Point {
        x : int,
        y : int
    }

    let origin : Point = { x : 10, y : 1 };

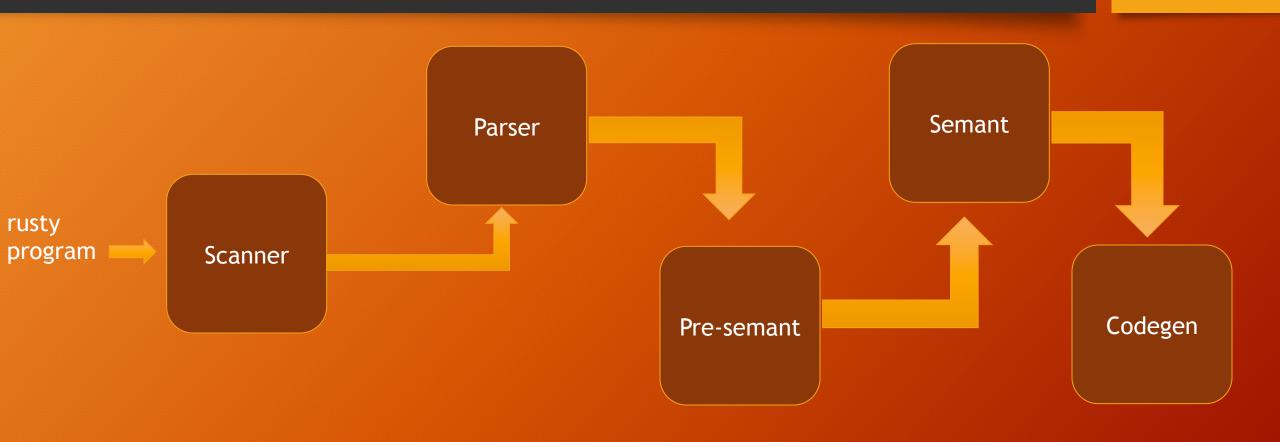
    println(origin.x + origin.y);

    println("yay");
}
```

Memory Safety

```
fn mem1 () -> int {
    let v: int = 42;
    let v2: &int = &v;
    println(*v2); /* 42 */
    println(v); /* 42 */
    return 0;
}
```

Compiler Architecture



Testing

- Binary/unary operations
- Control flow
- Functions
- Structs
- Memory safety

Demos