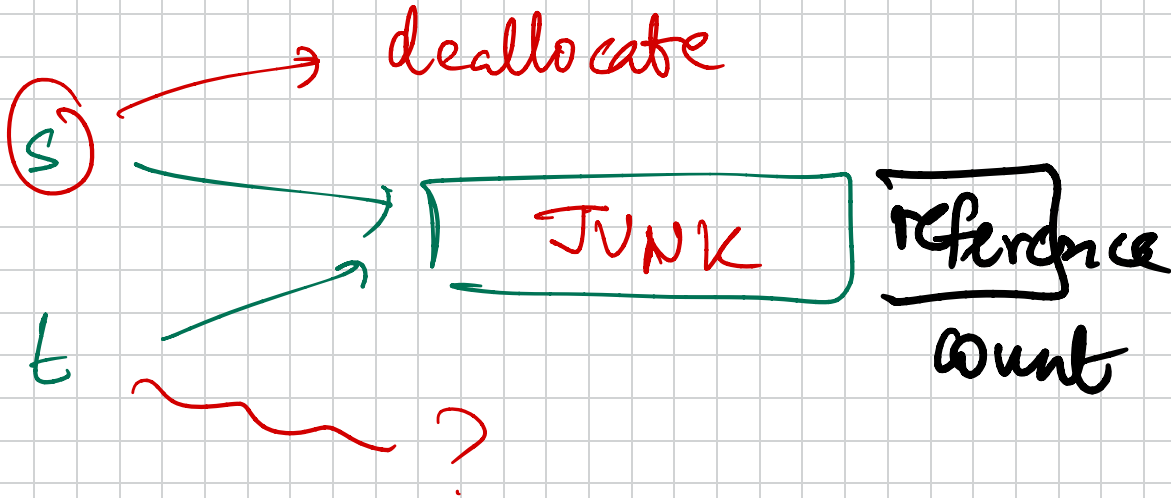
Programming Language Concepts, Lecture 7, 29 Jan 2026

Garbage, dangling pointers

Aliasing



Rust - "Memory safe"

Types

Dynamic vs Static

Python

Java

Haskell

↓

Strict

Inferred

Strict?

Rust

Strict + Inferred

println!("--")

↳ MACRO

Multiple (variadic) args

No overloading of fns

Java/C etc:

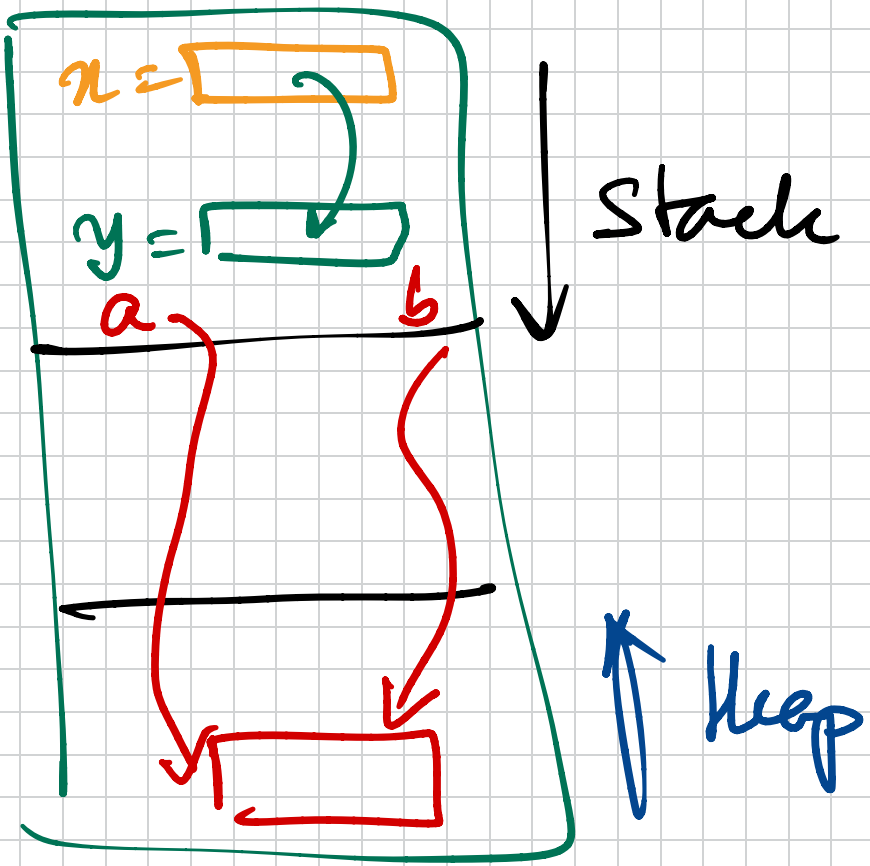
type var

int x

Rust

var : type

x : int



$y = x$

$b = a$

Ownership

Every value in memory has a single owner

```
s2 = s1;
```

Transferred ownership of string to s2