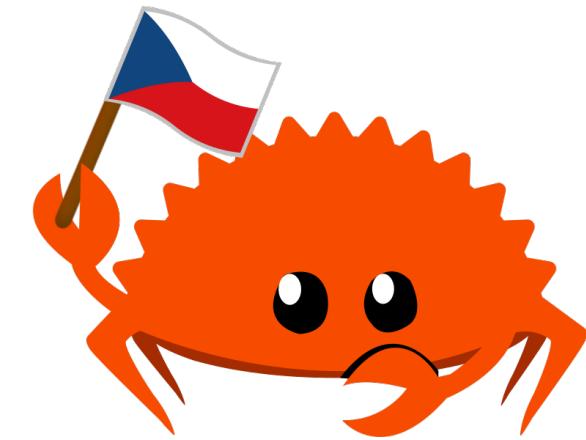


**TECH
MEETUP
OSTRAVA**



TechMeetup Ostrava: Rust

Kuba Beránek



github.com/kobzol

Kuba Beránek

- PhD/teaching/work @ VSB-TUO, IT4Innovations



github.com/kobzol

Kuba Beránek

- PhD/teaching/work @ VSB-TUO, IT4Innovations
- Maintainer @ Rust Project



github.com/kobzol

Compiler performance working group

Improving rustc compilation performance (build times)

Members



Mark Rousskov

GitHub: [Mark-Simulacrum](#)

Team leader



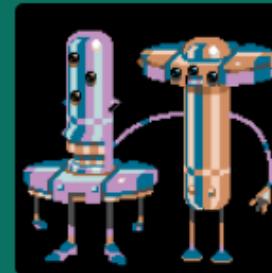
Jakub Beránek

GitHub: [Kobzol](#)



Rémy Rakic

GitHub: [lqd](#)



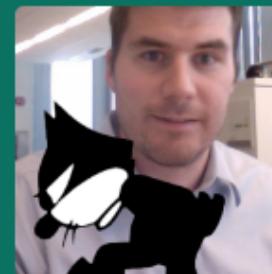
Michael Woerister

GitHub: [michaelwoerister](#)



Nicholas Nethercote

GitHub: [nnethercote](#)



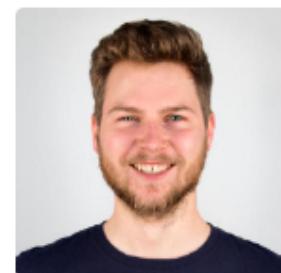
Felix Klock

GitHub: [pnkfelix](#)

Infrastructure team

Managing the infrastructure supporting the Rust project itself, including CI, releases, bots, and metrics

Members



Jan David Nose

GitHub: [jdno](#)

Team leader



Jake Goulding

GitHub: [shepmaster](#)

Team leader



kennytm

GitHub: [kennytm](#)



Jakub Beránek

GitHub: [Kobzol](#)



Mark Rousskov

GitHub: [Mark-Simulacrum](#)



Pietro Albini

GitHub: [pietroalbini](#)





STŘEDA 13. BŘEZNA 2024 V 19:00 AŽ 22:00

Rust Beer #14 - March Edition

Ambassade Rum Bar

Rust Meetup by Sonalake #5



Hosted By
Tomáš J. and 2 others

Bratislava
**Rust
MeetUp**



TUE, APR 16 · 6:00 PM CEST

Rust Meetup by Sonalake #5

Rust Meetup by Sonalake #5

Hosted By



TUE, APR 16 · 6:00 PM CEST

Rust Meetup by Sonalake #5

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Hosted By



TUE, APR 16 · 6:00 PM CEST

Rust Meetup by Sonalake #5

rustlang.cz





Rust - programovací jazyk pro klidný spánek

TechMeetup conference Ostrava 3. 11. 2023

Intro talk about Rust, recording on YouTube





Rust in a nutshell



Rust in a nutshell

- Static + strong typing



Rust in a nutshell

- Static + strong typing
- OOP + FP paradigms



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- Static + strong typing
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- Syntax based on C



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Rust in a nutshell

- Static + strong typing
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- Syntax based on C
- Compiled to native code
- No GC, minimal runtime



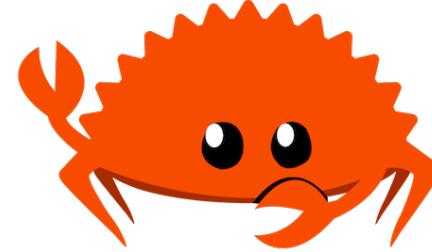
Rust in a nutshell

- Static + strong typing
- OOP + FP paradigms
- Syntax based on C
- Compiled to native code
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- Integrated package manager



Rust in a nutshell

- Static + strong typing
- OOP + FP paradigms
- Syntax based on C
- Compiled to native code
- No GC, minimal runtime
- Integrated package manager
- Friendly community



```
fn main() {  
    println!("Hello TechMeetup!");  
}
```



Why Rust?

Performance

Rust is blazingly fast and memory-efficient: with no runtime or garbage collector, it can power performance-critical services, run on embedded devices, and easily integrate with other languages.

Reliability

Rust's rich type system and ownership model guarantee memory-safety and thread-safety — enabling you to eliminate many classes of bugs at compile-time.

Productivity

Rust has great documentation, a friendly compiler with useful error messages, and top-notch tooling — an integrated package manager and build tool, smart multi-editor support with auto-completion and type inspections, an auto-formatter, and more.



Use-cases for Rust



Use-cases for Rust

- Web services (REST, GraphQL, backend, ...)



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- Web services (REST, GraphQL, backend, ...)
- Cloud functions, serverless



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- CLI applications, tooling, infrastructure



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- ...



Who uses Rust?



Who uses Rust?

- Google, Meta, Amazon, Microsoft, Linux, ...



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- Cloudflare, Dropbox, Discord, Figma, NPM, ...



Who uses Rust?

- Google, Meta, Amazon, Microsoft, Linux, ...
- Cloudflare, Dropbox, Discord, Figma, NPM, ...
- CDN77, Microsoft, Espressif, Hardwario, Edhouse, Rockwell, SatoshiLabs, Braiins, IT4Innovations, ...



Who uses Rust?

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- Cloudflare, Dropbox, Discord, Figma, NPM, ...
- CDN77, Microsoft, Espressif, Hardwario, Edhouse, Rockwell, SatoshiLabs, Braiins, IT4Innovations, ...
- and many others



crates.io

61,703,396,585

Downloads



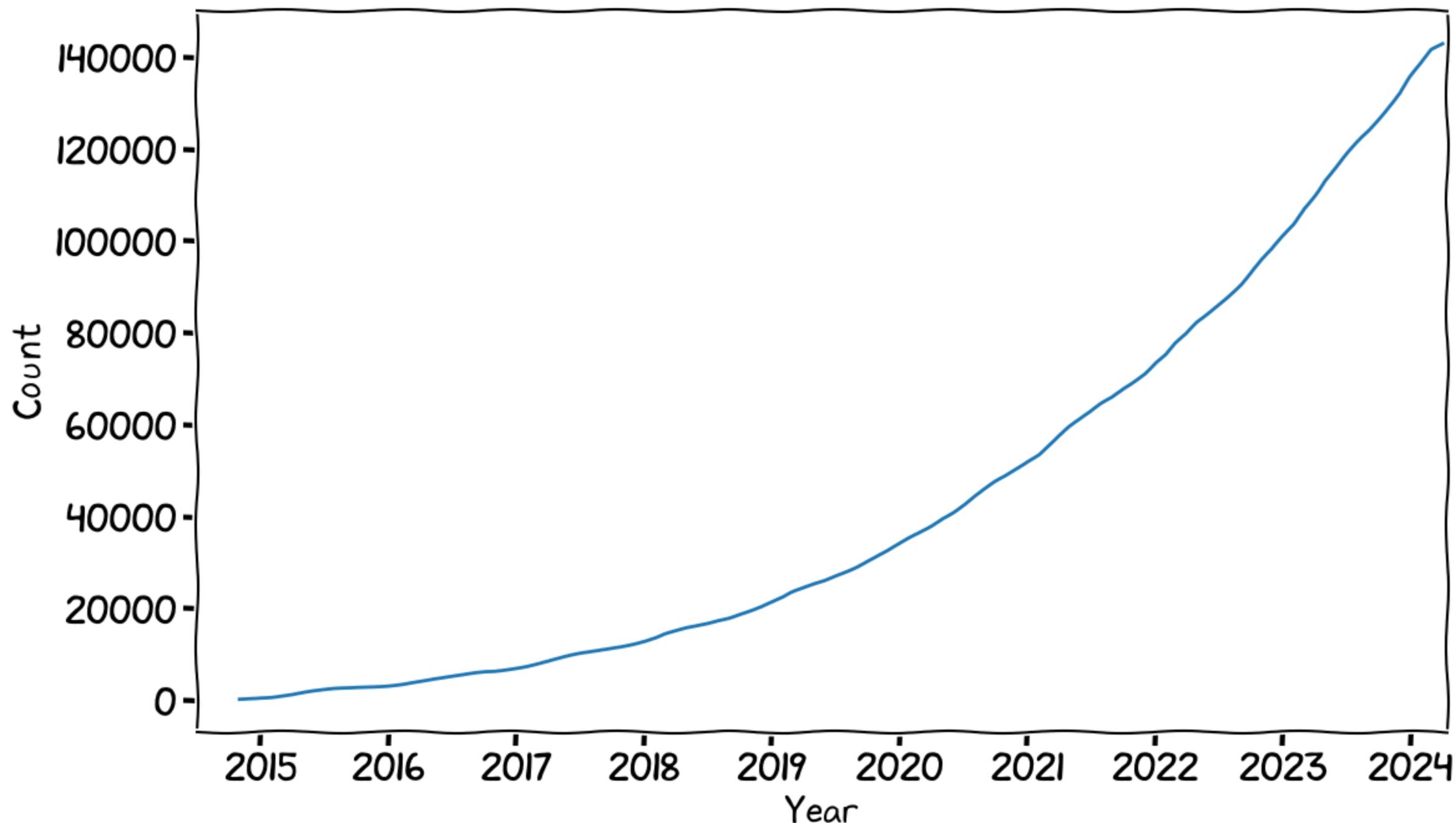
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Crates in stock



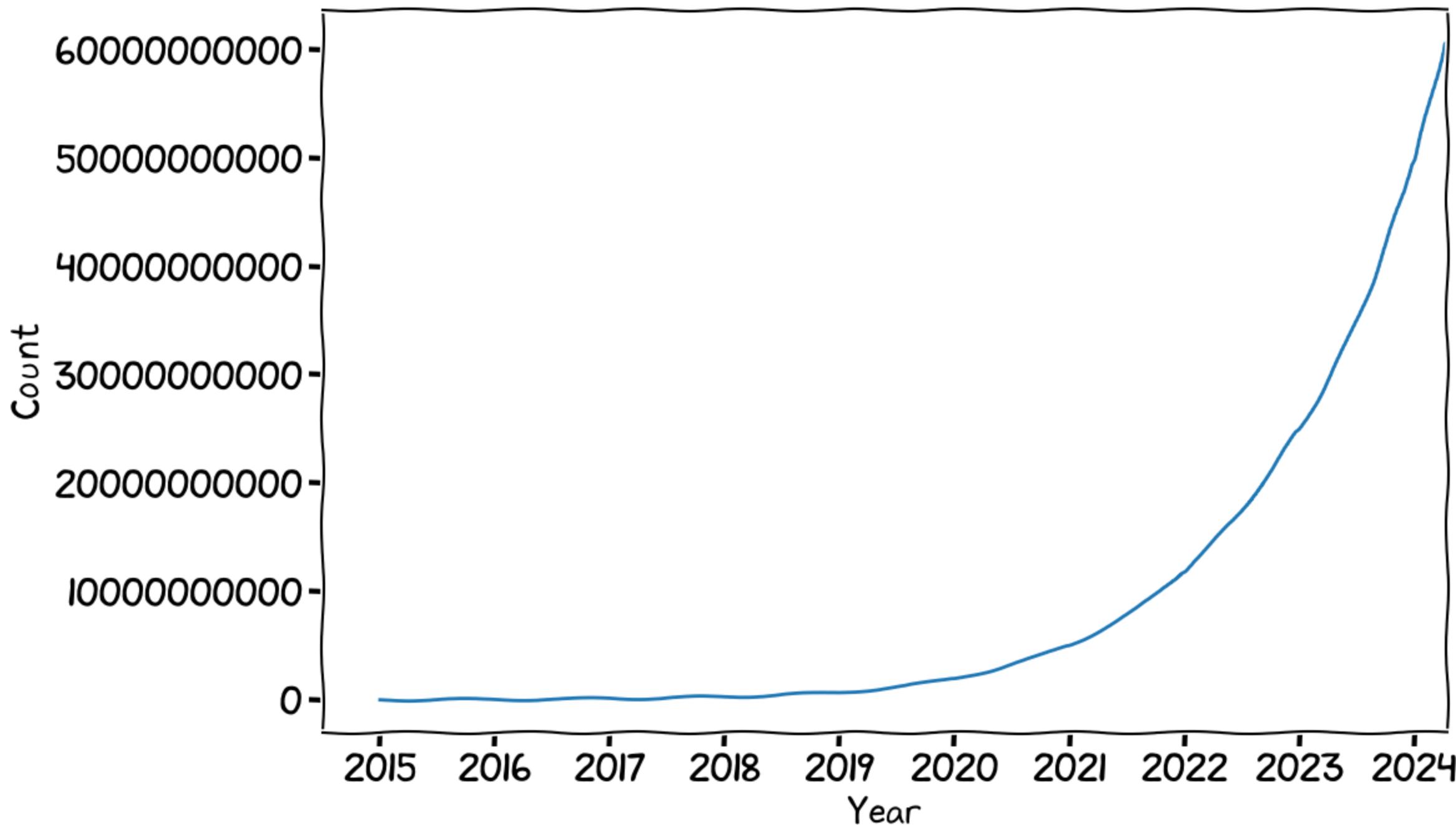


Crate count (140k+)





Crate downloads (60B+)





Posted by u/Chadshinshin32 4 months ago

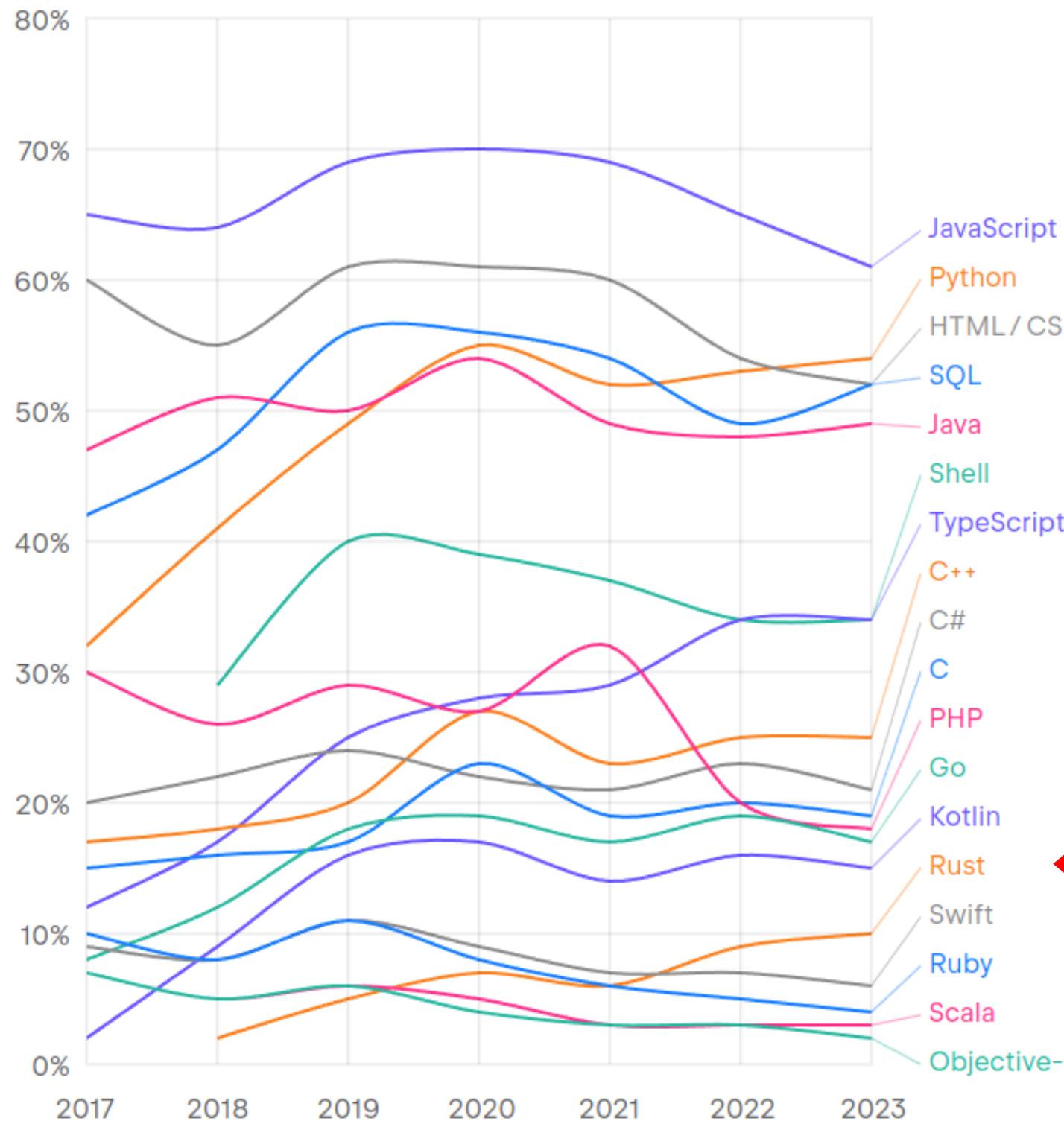
833



**2023 Stack Overflow Survey: Rust is
the most admired programming
language, making it the most loved
language for 8 years in a row**

survey.stackoverflow.co/2023/ ↗

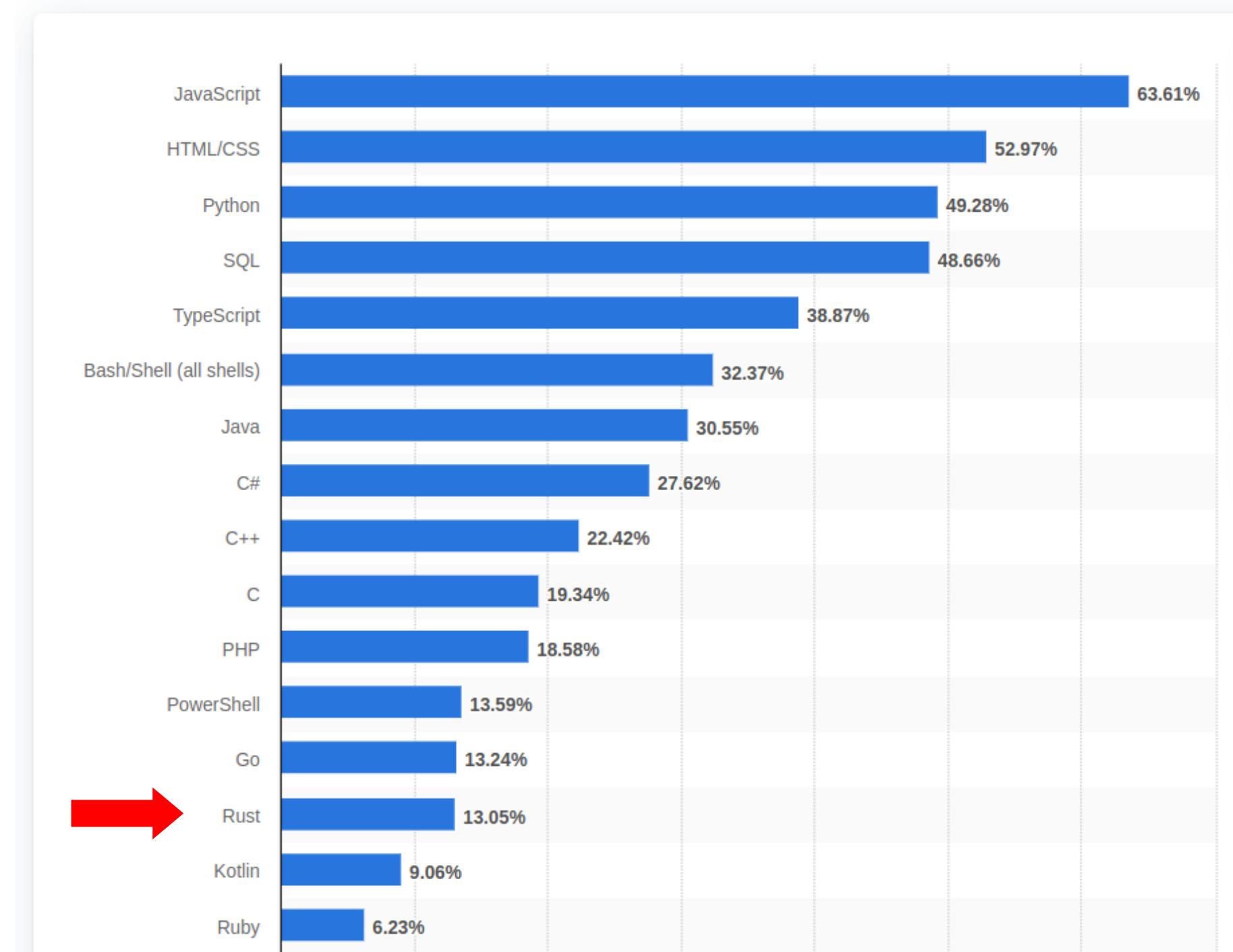
Which programming, scripting, and markup languages have you used in the last 12 months?



JetBrains Ecosystem survey



Most used programming languages among developers worldwide as of 2023



Statista.com



Live demo



Live demo

Goal: implement a web app in Rust



Live demo

Goal: implement a web app in Rust
From scratch, in 45 minutes



Live demo

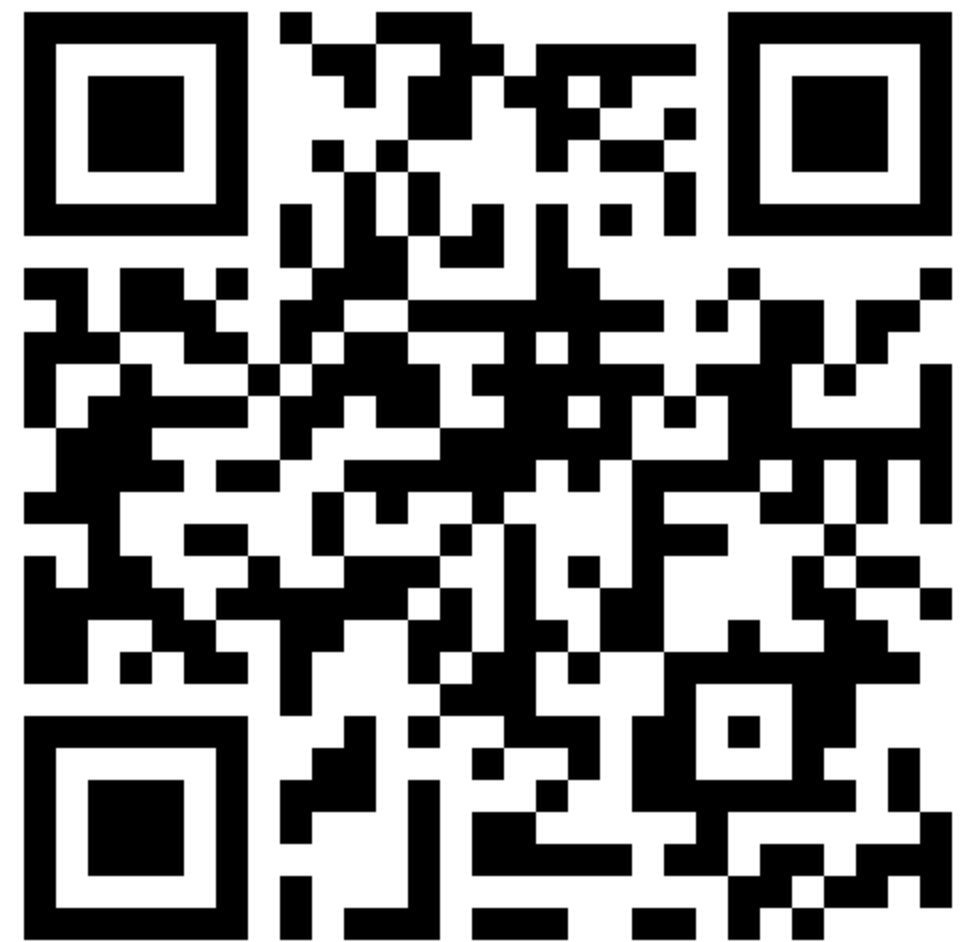
Goal: implement a web app in Rust

From scratch, in 45 minutes

...what could go wrong?

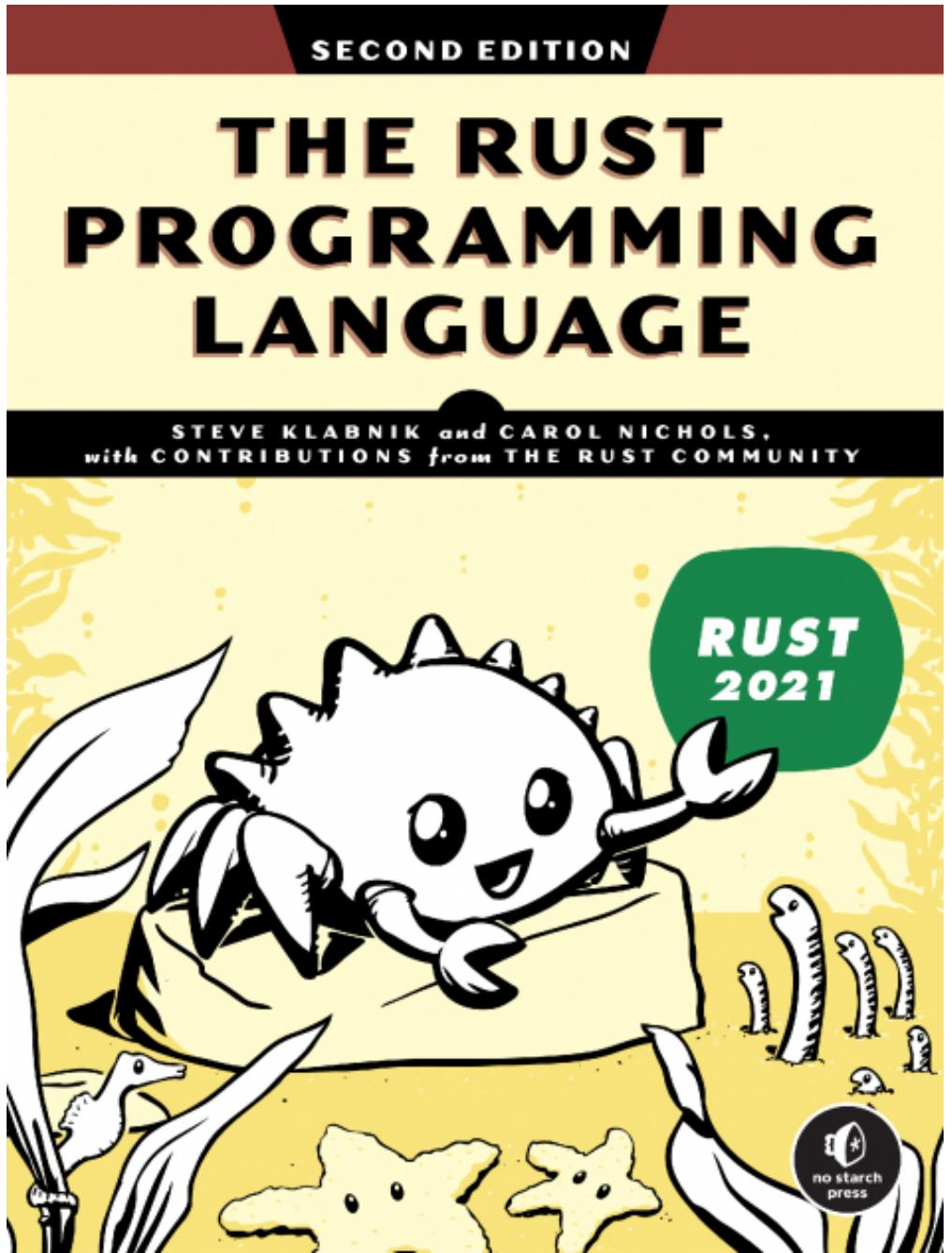


github.com/kobzol/rust-web-app-demo





The Rust Programming Language





Rust course @ FEI VSB-TUO

github.com/kobzol/rust-course-fei





Thank you for your attention

Slides were created with github.com/spirali/elsie