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1 Introduction

Rust is a programming language that focusses on performance, security and reliability. The *Rust Project* is open source and dual-licensed under the Apache 2.0 and MIT license (Hoare and al. 2019). Rust 1.0 the first stable version was announced in May 2015 (The Rust Core Team 2015). This release also marked the start of the *commitment to stability* which promises stability on future Rust stable releases (Turon and Matsakis 2014). This new commitment also introduced a 6-week release cycle as well as development channels for language users and early adapters (Turon and Matsakis 2014). The latest stable compiler version 1.51.0 has been released on 25 of March 2021 (The Rust Core Team 2021). Developers and teams within the project put high effort into open communication. This focussed is formalized in the official *Code of conduct* (The Rust Team 2021b). The language with its connected tools has attracted over 5900 individual contributors as of writing this (The Rust Team 2021a).

The Rust project develops several tools besides the compiler itself. These tools are seen as a vital part in automating parts of the development process and collaboration among teams. *Clippy* the official linter of the Rust project is being developed in the *rust-clippy* repository. The linter contains over 450 lints which span from complexity and style lints over to restriction lints which might be required by certificates (The Rust Clippy Developers 2021). Since 2018 Clippy is distributed as a component with the compiler itself (Lusby 2018).

- Developed by mozilla
- Rust foundation
- Opensource
- MIT licence
- Clippy official linter
- Lint description splitup
- Clippy is released as part of Rust
- No new lints policy <https://rust-lang.github.io/rfcs/2476-clippy-uno.html?highlight=Clippy>

Some text

- What is rust
 - Language
 - Rust foundation
- What is clippy (Well rust-clippy until defined that it will be called Clippy)
 - Background
 - Clippy's lint lint (Only what it does)
- Problems / Motivation behind this work
 - Long initial loading time
 - Mozilla Observatory low score
- Main question: *How can the internet presentation of the lint list for the rust-clippy project be improved?*
- How will this paper try to solve the main question
 - Define specifications
 - Look at current fulfillment
 - Explain the technical background

- Try to find a solution (Or contact GH support)

Some text

2 Specification

2.1 Website specifications

2.1.1 Formal specifications

- Technical security measured by Mozilla Observatory

2.1.2 Informal specifications

* We need SPEED

3 Measuring the specifications

3.1 Running benchmarks

1. Simple *Mozilla Observatory*
2. Load times -> difficult
 - Comparing only on one device as this load time is significant and we want significant improvements
 - rustfmt's website shows that fast loading times are possible

3.2 Summary of benchmarks

Hello expedia

4 Analysis of benchmark results

4.1 Technical problems

- Explaining the grade C from *Mozilla Observatory*
- This should definitely include scientific sources to make this a valid paper
 - The examiner noted that the paper outline seems interesting but that I need to take care to include scientific sources
- Explanation why the listed security risks are security risks

4.2 Slow loading times (Browser debug tools)

Hello

5 Solutions for unfulfilled specifications

- Reading GH page documentation
- Maybe contacting support

Hello

6 Conclusion

Hello

References

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7 Attachments