Rust Programming Features

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Mini-Project

In this project our team decided to explore the rich features of Rust programming language and compare it to the legendary C programming language. Our main focus is on the macros which allow to abstract at a syntactic level. It expands the syntactic form, before any static checking. Thus, it allows capturing many patterns of code that Rust's core abstractions cannot. On the other hand, C uses text substitution that will keeps the parsed meta-variable in the syntax tree. Moreover, Rust uses the ownership and lifetime systems for security purposes in general. The benefit is to reduce the overall complexity and eliminate the role of a garbage collector. In C, allocating and deallocating memory is done manually by the user. This is mostly concerned with the compile-time behavior. As of what we understand for now we think this would be interesting to talk about. We might still modify some of the ideas and imporve the project.