



# MUGLA SITKI KOÇMAN UNIVERSITY

## Implementation of Domain Specific Language Using Rust

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### Abstract

This project showcases the development of a Rust-based interpreter for a simplified programming language. The interpreter, constructed step-by-step, demonstrates the fundamental processes of lexical analysis, parsing, and code execution using abstract syntax trees (ASTs). From tokenization to the handling of variables and functions, the poster illustrates how Rust's language features empower the creation of a robust interpreter. Through practical examples and insights, this project illuminates the journey from language specification to functional interpreter, offering valuable lessons in systems programming and language implementation.

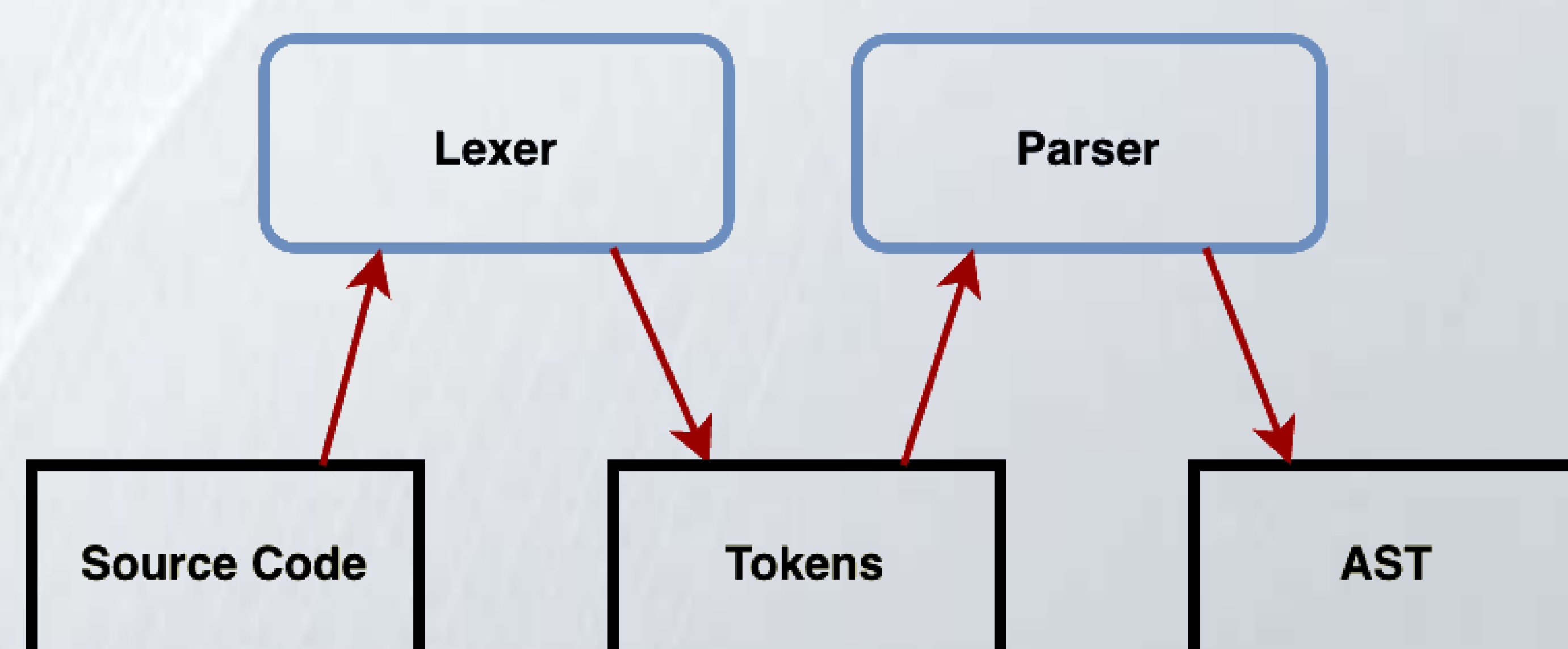
### Language



**The Rust  
Programming  
Language**

### Key Concepts

- Lexical Analysis (Lexing) and Tokenization
- Parsing Techniques and Abstract Syntax Trees (ASTs)
- Code Evaluation and Execution
- Management of Variable Assignments, Function Calls, and Control Structures
- Utilization of Rust Language Features for Language Implementation



**Explore Rust's  
unique features  
and its rising  
popularity**

**Creating a  
specialized  
language using  
Rust**

**Emphasize the  
excitement of  
creating a new  
language using  
Rust**