

## Adhiraj Bhagawati (Project 2)

### Step-1 Read the file ---

by using `std::fs::File` & `std::io::prelude::*`; library

In Rust we cannot read file line by line we need to read whole file together and store it in vector of string than:

-read it character by character

### Step-2

Tokenizer (lexical analyzer)

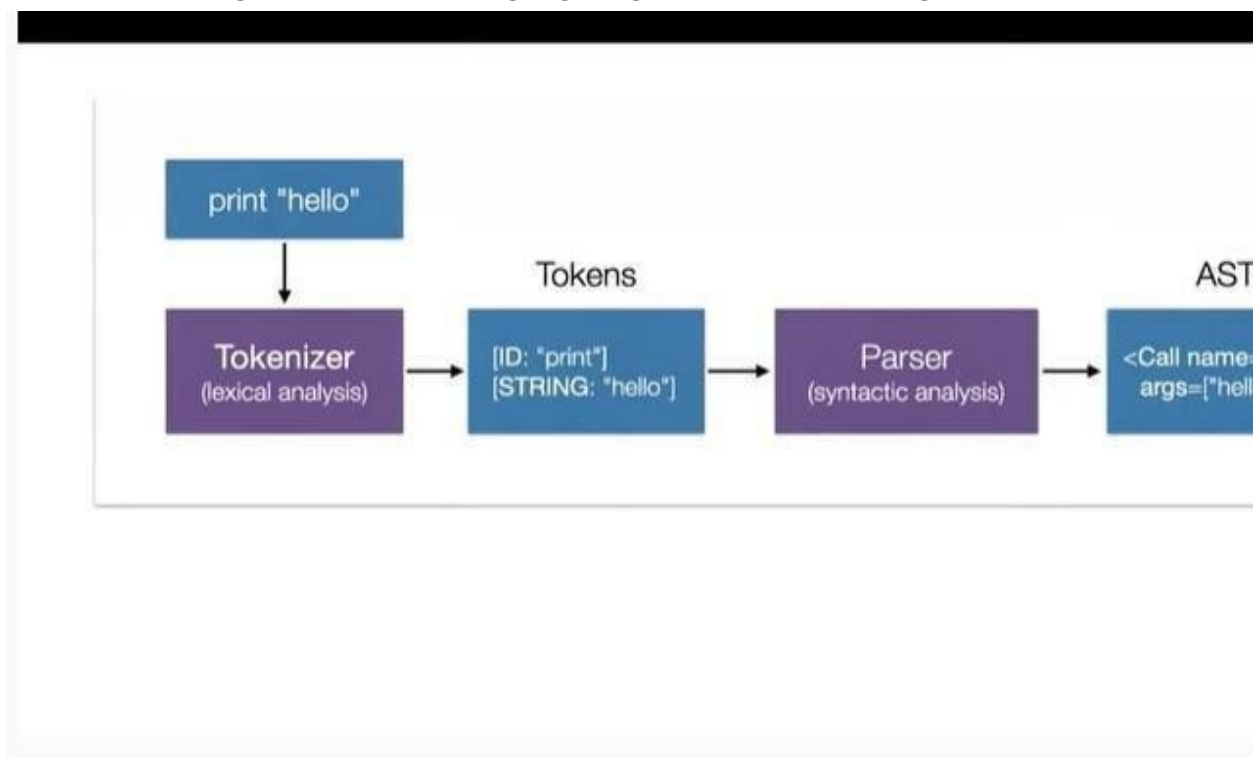
for every character check if it is an identifier or keyword or expression or variable by using `token.rs` and `mod.rs` file

### step-3

Parse (syntactic analysis)

check for any syntax error

### step 4 Generating XHTML file and highlighting functions according format.csv file



## OUTPUT:

```
|
= note: `[warn(non_upper_case_globals)]` on by default

warning: `parser` (bin "parser") generated 1 warning
Finished dev [unoptimized + debuginfo] target(s) in 0.07s
Running `D:\Adhiraj -Assignments\parser\target\debug\parser.exe`

FLOATCONSTANT
IDENT(['F', 'o', 'o'])
LPAREN('(')
INTCONSTANT
IDENT(['v', 'a', 'l'])
RPAREN(')')
SEMICOLON(';')
IDENT(['v', 'o', 'i', 'd'])
IDENT(['m', 'a', 'i', 'n'])
LPAREN('(')
RPAREN(')')
LBRACE('{')
FLOATCONSTANT
IDENT(['V', 'a', 'l', 'u', 'e'])
SEMICOLON(';')
IDENT(['V', 'a', 'l', 'u', 'e'])
ASSIGN('=')
IDENT(['F', 'o', 'o'])
LPAREN('(')
FLOAT(['7'])
RPAREN(')')
SEMICOLON(';')
RBRACE('}')
FLOATCONSTANT
IDENT(['F', 'o', 'o'])
LPAREN('(')
INTCONSTANT
```

```
example
File Edit
float Fo
void ma
float Va
Value =
}
float Fo
float Te
while(va
TestFloa
val = va
}
return
}
```

## References

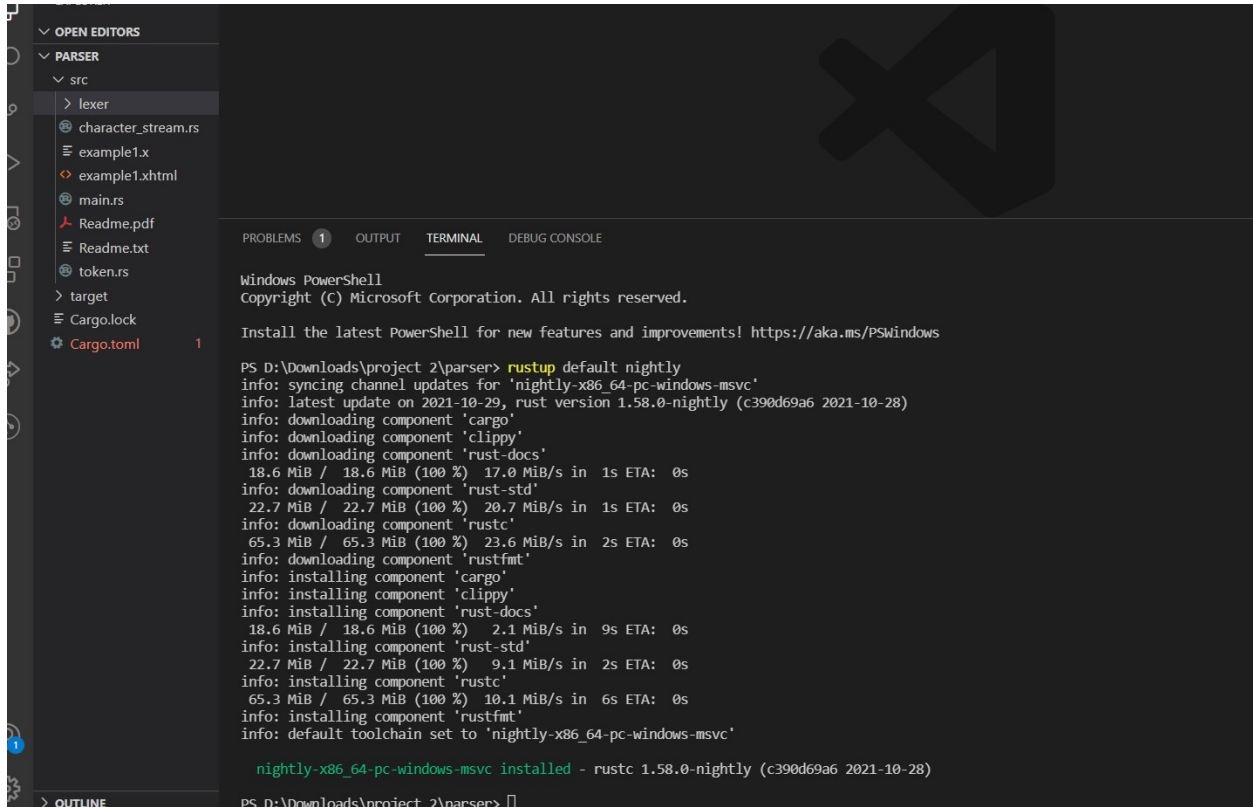
=><https://github.com/mohitk05/monkey-rust>

=><https://youtu.be/4m7ubrdBWQU>

=>[https://adriann.github.io/rust\\_parser.html](https://adriann.github.io/rust_parser.html)

## IMPORTANT:

You may need to install the nightly version with daily updates



The screenshot shows a Visual Studio Code editor with a project named 'parser' open. The file explorer on the left shows the project structure, including 'src', 'lexer', and 'Cargo.toml'. The terminal window at the bottom shows the execution of the 'rustup default nightly' command, which installs the Rust nightly toolchain. The output of the command is as follows:

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\Downloads\project 2\parser> rustup default nightly
info: syncing channel updates for 'nightly-x86_64-pc-windows-msvc'
info: latest update on 2021-10-29, rust version 1.58.0-nightly (c390d69a6 2021-10-28)
info: downloading component 'cargo'
info: downloading component 'clippy'
info: downloading component 'rust-docs'
 18.6 MiB / 18.6 MiB (100 %) 17.0 MiB/s in 1s ETA: 0s
info: downloading component 'rust-std'
 22.7 MiB / 22.7 MiB (100 %) 20.7 MiB/s in 1s ETA: 0s
info: downloading component 'rustc'
 65.3 MiB / 65.3 MiB (100 %) 23.6 MiB/s in 2s ETA: 0s
info: downloading component 'rustfmt'
info: installing component 'cargo'
info: installing component 'clippy'
info: installing component 'rust-docs'
 18.6 MiB / 18.6 MiB (100 %) 2.1 MiB/s in 9s ETA: 0s
info: installing component 'rust-std'
 22.7 MiB / 22.7 MiB (100 %) 9.1 MiB/s in 2s ETA: 0s
info: installing component 'rustc'
 65.3 MiB / 65.3 MiB (100 %) 10.1 MiB/s in 6s ETA: 0s
info: installing component 'rustfmt'
info: default toolchain set to 'nightly-x86_64-pc-windows-msvc'

  nightly-x86_64-pc-windows-msvc installed - rustc 1.58.0-nightly (c390d69a6 2021-10-28)

PS D:\Downloads\project 2\parser>
```