https://github.com/paie2993/formal

Alphabet :

1. Upper- and lowercase letters of the English alphabet: A-Z and a-z
2. Decimal digits: 0-9
3. Underline character: “\_”

Lexic:

1. Special symbols:

Operators: + - \* / % = < <= > >= == && || !

Separators: \s \t \n : ( ) [ ] { }

Reserved words: Integer Character String Boolean if else while for read write val to

1. Identifiers:

digit = “0” | “1” | “2” | “3” | “4” | “5” | “6” | “7” | “8” | “9”

letter = “a” | “b” | ... | “z” | “A” | “B” | ... | “Z”

underscore = “\_”

identifier = [underscore] letter { letter | digit }

1. Constants :
2. Integer :

digitSequence = digit {digit}

nonZeroDigit = “1” | “2” | ... | “9”

zeroDigit = “0”

sign = “+” | “-”

integer = zeroDigit | [sign] nonZeroDigit { digit }

1. Character :

operatorChar = ”+” | ”-” | ”\*” | ”/” | ”%” | ”=” | ”<” | ”>” | “!” | “&” | “|”

separatorChar = “\s” | “\t” | “\n” | “:” | “(” | “)” | ”[” | “]” | ”{” | ”}”

char = letter | digit | underscore | operatorChar | separatorChar | “;” | “\” | “ ’ ” | “ “ ”

character = ‘char’

1. String:

string = “ “ ” {char} “ “ ”

1. Boolean:

boolean = “true” | “false”