Alphabet:

* Upper and lowercase letters (A-Z, a-z)
* Underscore character ‘\_’
* Decimal digits (0-9)

Lexic:

1. Special symbols:

* Operators:

Arithmetic: +, -, /, \*, %

Assignment: :=

Relational: <, >, <=, >=, =, !=

* Reserved words:

int

string

if

then

else

while

for

do

end

and

or

write

read

* Separators: () space \n

1. Identifiers:

A sequence of letters and digits, such that the first characters starts with either a letter of ‘\_’:

id := (“\_” | letter) {letter | digit}

letter := “a” | … | “Z”

digit := “0” | … | “9”

1. Constants
2. int

int := “0” | [ “+” | “-“ ] non\_zero\_digit {digit}

digit := “0” | non\_zero\_digit

non\_zero\_digit := “1” | … | “9”

1. string

const\_string := \” str \”

str := {char}

char := letter | digit

letter := “a” | … | “Z”

digit := “0” | … | “9”

special := operators | separators | “\_”