Logo

Description automatically generated

Project compilers

|  |  |
| --- | --- |
| Names | ID |
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Screen shots of output:

Shape, rectangle

Description automatically generated

Main window

Text

Description automatically generated

Main window with code

Table

Description automatically generated

Token table after scanning the code.

A picture containing text, screenshot, electronics, display

Description automatically generated

C code generated after parsing.

Supported tokens:

|  |  |
| --- | --- |
| Tokens | Value |
| + | Plus |
| - | Minus |
| \* | Multiplication |
| / | Division |
| ( | Left bracket |
| ) | Right bracket |
| strings | String |
| Read | Read |
| write | Write |
| := | Assignment |
| ; | Semicolon |
| If | If |
| Then | Then |
| End | End |
| repeat | Repeat |
| Until | until |
| = | Comparison |
| newline | newline |
| End of file | EOF |
| > | GT |
| < | LT |
| >= | GTEQ |
| <= | LTEQ |
| != | NOTEQ |
| {} | // | /\*\*/ | comment |

Grammar rules for parsing:

Program 🡪 {statements}

Statement 🡪 read identifier ;| write (identifier | string); | if comparison then newline {newline statements} end| repeat {statements} until comparison newline | identifier := expression ;

Expression 🡪 term {(+|-) term}

Term🡪 unary {(\*|/) unary}

Unary 🡪 [+ | -] primary

Primary 🡪 identifier | number | (expression)

Comparison 🡪expression (>|<|>=|<=|!=|=) expression {(>|<|>=|<=|!=|=) expression}