```
topRule = "PROGRAM", programName, varsBlock, ";", "START", statement, "FINISH";

programName = "Low8", identifier;

varsBlok = "Low8", identifier, { commaAndIdentifier };

identifier = low_letter, low_letter, low_letter, low_letter, low_letter, low_letter, low_letter, low_letter;

commaAndIdentifier = ",", identifier;

statement = write | read | assignment | ifStatement| goto_statement |goto_declaration |
forToOrDownToDoRule | while | repeatUntil ;

read = "READ", identifier;

write = "WRITE", equation;

assignment = identifier, "<==", equation;

ifStatement = "IF", (equation), statement, [ elseStatement ];

elseStatement = "ELSE", statement;

goto_statement = "GOTO", identifier;

goto_declaration = identifier,":";

forToOrDownToDoRule = "FOR", assignment, ("TO" | "DOWNTO"), equation, "DO", statement;

while = "WHILE", ( equation), "DO", while_statement, "WEND";

while_statement =  write | read | assignment | whileifStatement| goto_statement |goto_declaration |
whileforToOrDownToDoRule | while | repeatUntil | continuewhile | exitwhile;

exitwhile = "WHILEEND" ;

continuewhile = "WHILECONTINUE" ;

whileifstatement = "IF", (equation), while_statement, [elseStatement];

whileforToOrDownToDoRule = "FOR", assignment, ("TO" | "DOWNTO"), equation, "DO", while_statement;

repeatUntil = "REPEAT",(statement), "UNTIL", equation;

equation = signedNumber | identifier | notRule, { operationAndIdentOrNumber | equation };

notRule = notOperation, signedNumber | identifier | equation;

operationAndIdentOrNumber = mult | arithmetic | logic | compare | signedNumber | identifier | equation;

arithmetic = "ADD" | "SUB";

mult = "MUL" | "DIV" | "MOD";

logic = "&" | "|";

notOperation = "!";

compare = "=" | "<>" | "LE" | "GE";

comment = CommentStatement, { low_letter | up_letter | digit };

CommentStatement = "$$_";

signedNumber = [ sign ], digit, { digit };
```

```
sign = "+" | "-";

low_letter = "a" | "b" | "c" | "d" | "e" | "f" | "g" | "h" | "i" | "j" | "k" | "l" | "m" | "n" | "o" | "p" | "q" | "r" | "s" | "t" | "u" | "v" | "w" | "x" | "y" | "z";

digit = "0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" | "8" | "9";
```