**Lexical and Syntax Analyzer Grammar Rules**

<program> -> VOID MAIN '(' ')' <block>

<block> -> { < statements> }

<switchblock> -> '{' [case int: <expr>]\* | default: <expr> '}'

<switchstmt> -> switch (id) { switchblock }

<foreachstmt> -> foreach (type id ':' id) <statement>

<boolexpr> -> true | false | [id|int '<'|'>' id|int]

<forstmt> -> for ( <assignment>; <boolexpr>; <expression> ) <statement>

<forupdate> -> id '+''+'|'-''-'

<dostmt> -> do <statement>

<whilestmt> -> while ( <boolexpr> )

<ifstmt> -> if ( <boolexpr> ) <statement> [ else <statement> ]

<assignment> -> int|float '=' <expr>

<returnstmt> -> return <expr>