

附录1 词法生成规则

lex_rule.txt

NFA S ϵ A REAL+
NFA S . C
NFA S char IDENTIFIER
NFA S e/E IDENTIFIER
NFA S i IDENTIFIER
NFA S ' K
NFA K i K
NFA K d+ K
NFA K e/E K
NFA K char K
NFA K 0 K
NFA K ϵ K
NFA K ' STRING
NFA IDENTIFIER char IDENTIFIER
NFA IDENTIFIER i IDENTIFIER
NFA IDENTIFIER e/E IDENTIFIER
NFA IDENTIFIER d+ IDENTIFIER
NFA IDENTIFIER 0 IDENTIFIER
NFA A 0 INT
NFA A d+ B
NFA B d+ B
NFA B 0 B
NFA B ϵ INT
NFA C 0 DOUBLE
NFA C d+ DOUBLE
NFA INT . DOUBLE
NFA DOUBLE d+ DOUBLE
NFA DOUBLE 0 DOUBLE
NFA INT e/E D
NFA DOUBLE e/E D
NFA D +/- F
NFA D ϵ F
NFA F d+ DOUBLE
NFA F 0 DOUBLE
NFA INT +/- REAL+
NFA DOUBLE +/- REAL+
NFA REAL+ 0 I_INT
NFA REAL+ d+ H
NFA REAL+ . G
NFA REAL+ i COMPLEX
NFA H 0 H
NFA H d+ H
NFA H ϵ I_INT
NFA I_INT . I_DOUBLE

NFA G d+ I_DOUBLE
NFA G 0 I_DOUBLE
NFA I_DOUBLE d+ I_DOUBLE
NFA I_DOUBLE 0 I_DOUBLE
NFA I_INT e/E I
NFA I_DOUBLE e/E I
NFA I +/- J
NFA I ϵ J
NFA J d+ I_DOUBLE
NFA J 0 I_DOUBLE
NFA I_INT i COMPLEX
NFA I_DOUBLE i COMPLEX
Keyword for
Keyword while
Keyword if
Keyword else
Keyword return
Keyword break
Keyword continue
Keyword def
Keyword class
Keyword int
Keyword double
Keyword dict
Keyword list
Keyword tuple
AssignmentOperator +=
AssignmentOperator -=
AssignmentOperator *=
AssignmentOperator /=
AssignmentOperator //=
AssignmentOperator %=
AssignmentOperator =
BinaryOperator and
BinaryOperator or
BinaryOperator xor
BinaryOperator ==
BinaryOperator **
BinaryOperator +
BinaryOperator -
BinaryOperator *
BinaryOperator /
BinaryOperator //
BinaryOperator %
BinaryOperator in
BinaryOperator <
BinaryOperator >
BinaryOperator <=
BinaryOperator >=
UnaryOperator !

UnaryOperator not
 Delimiter .
 Delimiter :
 Delimiter (
 Delimiter)
 Delimiter {
 Delimiter }
 Delimiter [
 Delimiter]
 Delimiter ,
 DFAType INT
 DFAType DOUBLE
 DFAType COMPLEX
 DFAType IDENTIFIER
 DFAType STRING
 Expressionrule S identifier A
 Expressionrule S keyword A
 Expressionrule S assignment_operator Expr1
 Expressionrule S binary_operator Expr1
 Expressionrule S unary_operator Expr1
 Expressionrule S delimiter Expr1
 Expressionrule S ϵ Expr1
 Expressionrule A assignment_operator Expr1
 Expressionrule A binary_operator Expr1
 Expressionrule A unary_operator Expr1
 Expressionrule A delimiter Expr1
 Expressionrule Expr1 datatype Expr2
 Expressionrule Expr1 assignment_operator Expr1
 Expressionrule Expr1 binary_operator Expr1
 Expressionrule Expr1 unary_operator Expr1
 Expressionrule Expr1 delimiter Expr1
 Expressionrule Expr1 identifier Expr2
 Expressionrule Expr2 ϵ A