

Gee Grammar

$Program \rightarrow Statements$
 $Statements \rightarrow \{Statement\}$
 $Statement \rightarrow Assignment \mid Loop \mid IfStatement \ [ElseStatement] \mid Function$
 $Function \rightarrow Identifier \ (\ [Expression \ { \ , \ Expression \ } \] \) \ Eoln$
 $Assignment \rightarrow Identifier \ = \ Expression \ Eoln \mid Identifier \ = \ Function$
 $IfStatement \rightarrow if \ Expression : \ Eoln \ Indent \ Statements \ Undent$
 $ElseStatement \rightarrow else : \ Eoln \ Indent \ Statements \ Undent$
 $Loop \rightarrow while \ Expression : \ Eoln \ Indent \ Statements \ Undent$

$Expression \rightarrow Conjunction \ { \ || \ Conjunction \ }$
 $Conjunction \rightarrow Equality \ { \ \&\& \ Equality \ }$
 $Equality \rightarrow Relation \ [\ EquOp \ Relation \]$
 $EquOp \rightarrow == \mid !=$
 $Relation \rightarrow Addition \ [\ RelOp \ Addition \]$
 $RelOp \rightarrow < \mid <= \mid > \mid >=$
 $Addition \rightarrow Term \ { \ AddOp \ Term \ }$
 $AddOp \rightarrow + \mid -$
 $Term \rightarrow Factor \ { \ MulOp \ Factor \ }$
 $MulOp \rightarrow * \mid / \mid \%$
 $Factor \rightarrow [UnaryOp] \ Primary$
 $UnaryOp \rightarrow - \mid !$
 $Primary \rightarrow Identifier \ [\ [\ Expression \] \] \mid Literal \mid (\ Expression \)$

$Identifier \rightarrow Letter \ { \ Letter \mid Digit \ }$
 $Letter \rightarrow a \mid b \mid \dots \mid z \mid A \mid B \mid \dots \mid Z$
 $Digit \rightarrow 0 \mid 1 \mid \dots \mid 9$
 $Literal \rightarrow IntLiteral \mid StringLiteral \mid FloatLiteral \mid CharLiteral \mid BoolLiteral$
 $IntLiteral \rightarrow Digit \ { \ Digit \ }$
 $StringLiteral \rightarrow " \ ASCIIChar \ { \ ASCIIChar \ } "$
 $BoolLiteral \rightarrow true \mid false$
 $FloatLiteral \rightarrow IntLiteral \ . \ IntLiteral$
 $CharLiteral \rightarrow ' \ ASCIIChar \ '$

Only parenthesis, brackets, and braces in **bold** are not ENBF metasymbols. ASCIIChar is a nonterminal that refers to a single choice of any one of the ASCII characters, not listed here for sake of verbosity.