ГРАММАТИКА IDENTIFIERОВ

⟨identifier⟩ ⟶ ⟨letter⟩ ⟨identifier string⟩ | ⟨\_$⟩ ⟨letter⟩ ⟨identifier string⟩ | ⟨\_$⟩ ⟨digit⟩ ⟨identifier string⟩ | ⟨letter | ⟨\_$⟩ ⟨letter⟩ | ⟨\_$⟩ ⟨digit⟩

⟨\_$⟩ ⟶ \_ | $

⟨letter⟩ ⟶ a | .. | z | A |.. | Z

⟨digit⟩ ⟶ 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

⟨identifier string⟩ ⟶ ⟨letter⟩ | ⟨digit⟩ | ⟨\_$⟩ | ⟨letter⟩ ⟨identifier string⟩ | ⟨digit⟩ ⟨identifier string⟩ | ⟨\_$⟩ ⟨identifier string⟩

⟨data type⟩ ⟶ boolean | byte | short | int | long | double | float | char | String

⟨import⟩ ⟶ import

⟨class ⟩ ⟶ class

⟨void⟩ ⟶ void

⟨for⟩ ⟶ for

⟨if⟩ ⟶ if

⟨else⟩ ⟶ else

ГРАММАТИКА ЧИСЕЛ

⟨number⟩ ⟶ ⟨integer⟩ | ⟨integer⟩⟨.⟩⟨integer⟩

⟨integer⟩ ⟶ ⟨numbers w/o zero⟩ ⟨digit sequence⟩

⟨digit sequence⟩ ⟶ ⟨digit⟩ ⟨digit sequence⟩ | ⟨digit⟩

⟨numbers/zero⟩ ⟶ 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

⟨digit⟩ ⟶ 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

БУЛЕВАЯ ГРАММАТИКА

⟨boolean\_literal⟩ ⟶ true | false

ГРАММАТИКА СТРОК

⟨string⟩ ⟶ “⟨stringContent⟩”

⟨stringContent⟩ ⟶ ⟨sign⟩ ⟨stringContent⟩ | ⟨sign⟩

⟨sign⟩ ⟶ ⟨letter⟩ | ⟨digit⟩ | ` | ~ | ! | @ | № | # | $ | ; | % | : | ^ | ? | & | \* | ( | ) | \_ | - | + | = | / | \* | . | , | **|** | \ | < | > | “ | ‘ | { | } | [ | ]

ГРАММАТИКА SYMBOLОВ

⟨symbol⟩ ⟶ ‘⟨sign⟩’

ГРАММАТИКА ОПЕРАТОРОВ

⟨RO⟩ ⟶ == | < | > | <= | >= | !=

⟨AO+-⟩ ⟶ + | -

⟨AO\*/%⟩ ⟶ \* | / | %

⟨LO||⟩ ⟶ ||

⟨LO&&⟩ ⟶ &&

⟨=⟩ ⟶ =

ГРАММАТИКА РАЗДЕЛИТЕЛЕЙ

⟨.⟩ ⟶ .

⟨;⟩ ⟶ ;

⟨{⟩ ⟶ {

⟨}⟩ ⟶ }

⟨(⟩ ⟶ (

⟨)⟩ ⟶ )

⟨[⟩ ⟶ [

⟨]⟩ ⟶ ]

ГРАММАТИКА СИНТАКСИЧЕСКОГО АНАЛИЗАТОРА

⟨code⟩ ⟶ ⟨importContent⟩ ⟨classes⟩

⟨importContent⟩ ⟶ ⟨import⟩ ⟨identifier⟩ ⟨;⟩ ⟨importContent⟩ | ⟨import⟩ ⟨identifier⟩ ⟨;⟩

⟨classes⟩ ⟶ ⟨class⟩ ⟨classes⟩ | ⟨class⟩

⟨class⟩ ⟶ ⟨accessModifier⟩ ⟨class⟩ ⟨identifier⟩⟨{⟩ ⟨sentences⟩⟨}⟩ | ⟨accessModifier⟩ ⟨static⟩ ⟨class⟩ ⟨identifier⟩⟨{⟩ ⟨sentences⟩ ⟨}⟩

⟨sentences⟩ ⟶ ⟨sentence⟩ ⟨sentences⟩ | ⟨sentence⟩

⟨sentence⟩ ⟶ ⟨methodContent⟩ | ⟨method⟩

⟨methodContent⟩ ⟶ ⟨loop⟩ | ⟨ifStatement⟩ | ⟨methodCall⟩ | ⟨variableDeclaration⟩ | ⟨assignment⟩

⟨method⟩ ⟶ ⟨accessModifier⟩ ⟨methodType⟩ ⟨identifier⟩⟨(⟩⟨parameters⟩⟨)⟩⟨{⟩ ⟨methodContent⟩ ⟨}⟩ | ⟨accessModifier⟩ ⟨static⟩ ⟨methodType⟩ ⟨identifier⟩⟨(⟩⟨parameters⟩⟨)⟩⟨{⟩ ⟨methodContent⟩ ⟨}⟩

⟨methodCall⟩ ⟶ ⟨identifier⟩⟨(⟩ ⟨arguments⟩ ⟨)⟩ | ⟨identifier⟩⟨.⟩⟨methodCall⟩⟨;⟩

⟨variableDeclaration⟩ ⟶ ⟨variableType⟩ ⟨identifier⟩⟨;⟩ | ⟨variableType⟩ ⟨assignment⟩

⟨assignment⟩ ⟶ ⟨identifier⟩ ⟨=⟩ ⟨expression⟩⟨;⟩

⟨arguments⟩ ⟶ ⟨variable⟩, ⟨arguments⟩ | ⟨variable⟩ | λ

⟨parameters⟩ ⟶ ⟨variableType⟩ ⟨identifier⟩ | ⟨manyParameters⟩ | λ

⟨manyParameters⟩ ⟶ ⟨variableType⟩ ⟨identifier⟩, ⟨manyParameters⟩ | ⟨variableType⟩ ⟨identifier⟩

⟨methodType⟩ ⟶ ⟨void⟩| ⟨variableType⟩

⟨variableType⟩ ⟶ ⟨data type⟩ ⟨array⟩

⟨array⟩ ⟶ ⟨[⟩⟨]⟩ | ⟨[⟩⟨number⟩⟨]⟩ | λ

⟨loop⟩ ⟶ ⟨for⟩ ⟨(⟩⟨counter⟩⟨;⟩ ⟨condition⟩⟨;⟩ ⟨counterModification⟩⟨)⟩ ⟨sentence⟩

⟨condition⟩ ⟶ ⟨variable⟩ ⟨RO⟩ ⟨variable⟩ | ⟨condition⟩ ⟨LO||⟩ ⟨condition⟩ | ⟨condition⟩ ⟨LO&&⟩ ⟨condition⟩

⟨counter⟩ ⟶ ⟨data type⟩ ⟨variable⟩ ⟨=⟩ ⟨variable⟩ | ⟨data type ⟩ ⟨variable⟩ ⟨=⟩ ⟨number⟩

⟨counterModification⟩ ⟶ ⟨variable⟩ ⟨=⟩ ⟨variable⟩ ⟨AO+-⟩ ⟨variable⟩ | ⟨variable⟩ ⟨AO+-⟩ ⟨=⟩ ⟨variable⟩

⟨ifStatement⟩ ⟶ ⟨if⟩ ⟨condition⟩ {⟨sentence⟩} | ⟨if⟩ ⟨condition⟩ ⟨{⟩⟨sentence⟩⟨}⟩ ⟨else⟩⟨{⟩⟨sentence⟩⟨}⟩

⟨variable⟩ ⟶ ⟨number⟩ | ⟨identifier⟩ | ⟨string⟩ | ⟨symbol⟩ | ⟨boolean\_literal⟩

⟨expression⟩ ⟶ ⟨logicalExpression⟩ | ⟨ariphmeticExpression⟩

⟨logicalExpression⟩ ⟶ ⟨logicalAddendum⟩ ⟨LO||⟩ ⟨logicalExpression⟩ | ⟨logicalAddendum⟩

⟨logicalAddendum⟩ ⟶ ⟨logicalMultiplier⟩ ⟨LO&&⟩ ⟨logicalAddendum⟩ | ⟨logicalMultiplier⟩

⟨logicalMultiplier⟩ ⟶ ⟨(⟩⟨logicalExpression⟩⟨)⟩ | ⟨comparsion⟩ | ⟨identifier⟩ | ⟨boolean\_literal⟩

⟨comparsion⟩ ⟶ ⟨ariphmeticExpression⟩ ⟨RO⟩ ⟨ariphmeticExpression⟩

⟨ariphmeticExpression⟩ ⟶ ⟨ariphmeticAddendum⟩ ⟨AO+-⟩ ⟨ariphmeticExpression⟩ | ⟨ariphmeticAddendum⟩

⟨ariphmeticAddendum⟩ ⟶ ⟨ariphmeticSymbolMultiplier⟩ ⟨AO\*/%⟩ ⟨ariphmeticAddendum⟩ | ⟨ariphmeticSymbolMultiplier⟩

⟨ariphmeticSymbolMultiplier⟩ ⟶ ⟨(⟩⟨ariphmeticExpression⟩⟨)⟩ | ⟨number⟩ | ⟨identifier⟩ | ⟨string⟩