UNIVERSIDADE FEDERAL DE ALAGOAS-UFAL
CAMPUS A.C. SIMÕES
CIÊNCIA DA COMPUTAÇÃO

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GH - UMA LINGUAGEM DE EXPLORAÇÃO DE DADOS NO GITHUB

MACEIÓ
2018.1

1 Analisador Sintático

1.1 ANALISADOR

O analisador sintático utilizado para esse trabalho foi o ascendente SLR(1).

1.2 ESPECIFICAÇÃO DA GRAMÁTICA SLR(1)

S –> Code

Code –> FuncTypes main paramStart paramEnd Body

FunctionDecl –> FuncTypes id paramStart ParamDeclList paramEnd Body
FunctionDecl –> FuncTypes id paramStart paramEnd Body

ParamDeclList –> paramStart Params paramEnd
ParamDeclList –> paramStart paramEnd
Params –> Type id
Params –> Type id ParamDeclListCont
ParamDeclListCont –> comma Params

VarDecl –> Type id opAtrib Expression term
VarDecl –> Type id opAccess Expression term
VarDecl –> Type id term

Consts –> NumConst
Consts –> LogConst
Consts –> StringConst

Var –> id
Var –> id opAccess id
Var –> FuncAccess

FuncAccess –> FuncName FuncCall

FuncCall –> paramStart ListIds paramEnd

FuncName –> main
FuncName –> fAdd

FuncName —> fRemove
FuncName —> fSort
FuncName —> fUpper
FuncName —> fLower
FuncName —> fLength
FuncName —> fRefresh
FuncName —> fDiff_dates
FuncName —> fCollectData
FuncName —> fCompare

Type —> VariableTypes
Type —> ListTypes

VariableTypes —> tInt
VariableTypes —> tFloat
VariableTypes —> tString
VariableTypes —> tBool
VariableTypes —> tCommit
VariableTypes —> tUser
VariableTypes —> tRepository
VariableTypes —> tFile
VariableTypes —> tIssue
VariableTypes —> tPullRequest
VariableTypes —> tComment
VariableTypes —> tDate

ListTypes —> tInts
ListTypes —> tFloats
ListTypes —> tStrings
ListTypes —> tBools
ListTypes —> tCommits
ListTypes —> tUsers
ListTypes —> tRepositories
ListTypes —> tFiles
ListTypes —> tIssues
ListTypes —> tPullRequests
ListTypes —> tComments
ListTypes —> tDates

FuncTypes –> Type
FuncTypes –> tVoid

Command –> prWrite Expression term
Command –> prRead paramStart Var paramEnd term
Command –> prWhile Expression Body
Command –> prFor id in id Body
Command –> prIf Expression Body
Command –> prElse Body

ListIds –> ListIds comma Consts
ListIds –> Consts
ListIds –> Var

Body –> escStart BodyPart

BodyPart –> VarDecl BodyPart
BodyPart –> Expression term BodyPart
BodyPart –> Command BodyPart
BodyPart –> Return escEnd
BodyPart –> escEnd

Expression –> Expression opAtrib ExpressionOr
Expression –> Expression opConc ExpressionOr
Expression –> ExpressionOr

ExpressionOr –> ExpressionOr opLogicOr ExpressionAnd
ExpressionOr –> ExpressionAnd

ExpressionAnd –> ExpressionAnd opLogicAnd ExpressionRel
ExpressionAnd –> ExpressionRel

ExpressionRel –> ExpressionRel opRel1 ExpressionAdd
ExpressionRel –> ExpressionRel opRel2 ExpressionAdd
ExpressionRel –> ExpressionRel opRel3 ExpressionAdd
ExpressionRel –> ExpressionAdd

ExpressionAdd –> ExpressionAdd opAritAd ExpressionMult
ExpressionAdd –> ExpressionMult

```
ExpressionMult  ->  ExpressionMult  opAritMul  ExpressionNeg
ExpressionMult  ->  ExpressionNeg

ExpressionNeg  ->  ExpressionNeg  opNeg  ExpressionEnd
ExpressionNeg  ->  ExpressionEnd

ExpressionEnd  ->  paramStart  Expression  paramEnd
ExpressionEnd  ->  Consts
ExpressionEnd  ->  Var

NumConst  ->  tLitInt
NumConst  ->  tLitFloat
LogConst  ->  tLitBool
StringConst  ->  tLitString

Return  ->  prReturn  Expression  term
```