

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

CAIO BARBOSA VIEIRA DA SILVA

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)

$S \rightarrow \text{Code}$

$\text{Code} \rightarrow \text{Ft main Pdl Body}$
 $\quad | \text{Ft main Pdl Body Code}$

$\text{Fn} \rightarrow \text{main}$
 $\quad | \text{fAdd}$
 $\quad | \text{fRemove}$
 $\quad | \text{fSort}$
 $\quad | \text{fUpper}$
 $\quad | \text{fLower}$
 $\quad | \text{fLength}$
 $\quad | \text{fRefresh}$
 $\quad | \text{fDiff_dates}$
 $\quad | \text{fCollectData}$
 $\quad | \text{fCompare}$

$\text{Pdl} \rightarrow \text{paramStart Pdl paramEnd}$
 $\quad | \text{paramStart paramEnd}$
 $\quad | \text{Type id}$
 $\quad | \text{Type id Pdl1}$
 $\text{Pdl1} \rightarrow \text{comma Pdl}$

$\text{Fc} \rightarrow \text{paramStart LitIdL paramEnd}$

$\text{Fd} \rightarrow \text{paramStart Pdl paramEnd term}$

$\text{Decl} \rightarrow \text{Type id Inst}$
 $\quad | \text{Type id term}$

$\text{Inst} \rightarrow \text{opAtrib LitIds term}$
 $\quad | \text{opAccess LitId term}$

Atrib \rightarrow id opAtrib Exp term

LitIds \rightarrow Cid

| Lid

| Sid

| LitId

LitId \rightarrow id

| id opAccess id

| Fn Fc

Type \rightarrow Vt

| Lt

Vt \rightarrow tInt

| tFloat

| tString

| tBool

| tCommit

| tUser

| tRepository

| tFile

| tIssue

| tPullRequest

| tComment

| tDate

Lt \rightarrow tInts

| tFloats

| tStrings

| tBools

| tCommits

| tUsers

| tRepositories

| tFiles

| tIssues

| tPullRequests

| tComments

| tDates

Ft → Type

| tVoid

Command → prWrite Exp term

| prWrite paramStart Sid paramEnd term

| prRead paramStart id paramEnd term

| prWhile Exp Body

| prFor id in id Body

| prIf Exp Body

| prElse Body

LitIdL → LitIds comma LitIdL

| LitIds

Body → escStart BodyPart

BodyPart → Decl BodyPart

| Atrib BodyPart

| Command BodyPart

| Conc BodyPart

| Return escEnd

| escEnd

Exp → paramStart Exp paramEnd Exp2

| paramStart Exp paramEnd

| paramStart Exp paramEnd Exp1

| ExpA

| ExpL

| ExpL Exp1

| ExpA Exp2

ExpA → LitId

| Cid

ExpL → Lid

Exp2 \rightarrow OpA ExpA1
| OpC ExpA1

ExpA1 \rightarrow ExpA
| ExpA Exp2
| ExpC Exp2

Exp1 \rightarrow OpL ExpL

OpA \rightarrow opAritAd
| opAritMul

OpL \rightarrow opLogicAnd
| opLogicOr

OpC \rightarrow opRel1
| opRel2
| OpRel3

Cid \rightarrow tLitInt
| tLitFloat

Lid \rightarrow tLitBool

Sid \rightarrow tLitString

Conc \rightarrow Cid Conc1 term
| Sid Conc1 term
| LitId Conc1 term

Conc1 \rightarrow opConc LitIds

Return \rightarrow prReturn Exp term