



UNIVERSIDADE DO EXTREMO SUL CATARINENSE

Curso de Ciência da Computação



Disciplina: 6ª fase
Compiladores

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GRAMÁTICA

1. PROGRAMA ::= inicio ident ; BLOCO .
2. BLOCO ::= DCLVAR DCLPROC CORPO
3. DCLVAR ::= var LID : integer ; LDVAR
4. DCLVAR ::= \hat{I}
5. LID ::= ident REPIDENT
6. REPIDENT ::= , ident REPIDENT
7. REPIDENT ::= \hat{I}
8. LDVAR ::= LID : integer ; LDVAR
9. LDVAR ::= \hat{I}
10. DCLPROC ::= procedure ident DEFPAR BLOCO ; DCLPROC
11. DCLPROC ::= \hat{I}
12. DEFPAR ::= (LID : integer)
13. DEFPAR ::= \hat{I}
14. CORPO ::= begin COMANDO REPCOMANDO fim
15. COMANDO ::= se EXPRESSAO entao CORPO ELSEPARTE
16. COMANDO ::= enquanto EXPRESSAO faca COMANDO
17. COMANDO ::= repita COMANDO ate EXPRESSAO
18. COMANDO ::= le (VARIABEL REPVARIABEL)
19. COMANDO ::= chama ident PARAMETROS
20. COMANDO ::= escreve (ITEMSAIDA REPITEM)
21. COMANDO ::= caso EXPRESSAO of CONDCASE fim
22. COMANDO ::= ident REPIDENT := ATRIB ;
23. COMANDO ::= \hat{I}
24. ATRIB ::= ninteiro
25. ATRIB ::= ident
26. REPCOMANDO ::= ; COMANDO REPCOMANDO
27. REPCOMANDO ::= \hat{I}
28. PARAMETROS ::= (EXPRESSAO REPPAR)
29. PARAMETROS ::= \hat{I}
30. REPPAR ::= , EXPRESSAO REPPAR
31. REPPAR ::= \hat{I}

32. ELSEPARTE ::= senao COMANDO
33. ELSEPARTE ::= $\hat{1}$
34. VARIABEL ::= ident
35. REPVARIABEL ::= , VARIABEL REPVARIABEL
36. REPVARIABEL ::= $\hat{1}$
37. ITEMSAIDA ::= literal
38. ITEMSAIDA ::= EXPRESSAO
39. REPITEM ::= , ITEMSAIDA REPITEM
40. REPITEM ::= $\hat{1}$
41. CONDCASE ::= ninteiro RPINTEIRO : COMANDO CONTCASE
42. RPINTEIRO ::= , ninteiro RPINTEIRO
43. RPINTEIRO ::= $\hat{1}$
44. CONTCASE ::= ; CONTCASE
45. CONTCASE ::= $\hat{1}$
46. EXPRESSAO ::= EXPSIMP REPEXPSIMP
47. EXPSIMP ::= + TERMO REPEXP
48. EXPSIMP ::= - TERMO REPEXP
49. EXPSIMP ::= TERMO REPEXP
50. REPEXPSIMP ::= = EXPSIMP
51. REPEXPSIMP ::= < EXPSIMP
52. REPEXPSIMP ::= > EXPSIMP
53. REPEXPSIMP ::= >= EXPSIMP
54. REPEXPSIMP ::= <= EXPSIMP
55. REPEXPSIMP ::= <> EXPSIMP
56. REPEXPSIMP ::= $\hat{1}$
57. TERMO ::= FATOR REPTERMO
58. REPEXP ::= + TERMO REPEXP
59. REPEXP ::= - TERMO REPEXP
60. REPEXP ::= or TERMO REPEXP
61. REPEXP ::= $\hat{1}$
62. REPTERMO ::= * FATOR REPTERMO
63. REPTERMO ::= / FATOR REPTERMO
64. REPTERMO ::= and FATOR REPTERMO
65. REPTERMO ::= $\hat{1}$
66. FATOR ::= ninteiro
67. FATOR ::= (EXPRESSAO)
68. FATOR ::= nao FATOR
69. FATOR ::= VARIABEL

Símbolos Terminais Codificados

1. var
2. senao
3. se
4. repita
5. procedure
6. or
7. of
8. ninteiro
9. nao
10. literal
11. le
12. integer
13. inicio
14. ident
15. ^
16. fim
17. faca
18. escreve
19. entao
20. enquanto
21. chama
22. caso
23. begin
24. ate
25. and
26. >=
27. >
28. =
29. <>
30. <=
31. <
32. +
33. ;
34. :=
35. :
36. /
37. .
38. ,
39. *
40.)
41. (
42. \$
43. -

Símbolos Não Terminais Codificados

- 44. PROGRAMA
- 45. BLOCO
- 46. DCLVAR
- 47. DCLPROC
- 48. CORPO
- 49. LID
- 50. LDVAR
- 51. REPIDENT
- 52. DEFPAR
- 53. COMANDO
- 54. REPCOMANDO
- 55. EXPRESSAO
- 56. ELSEPARTE
- 57. VARIABEL
- 58. REPVARIABEL
- 59. PARAMETROS
- 60. ITEMSAIDA
- 61. REPITEM
- 62. CONDCASE
- 63. ATRIB
- 64. REPPAR
- 65. RPINTEIRO
- 66. CONTCASE
- 67. EXPSIMP
- 68. REPEXPSIMP
- 69. TERMO
- 70. REPEXP
- 71. FATOR
- 72. REPTERMO

Gramática Codificada

- Regra 1 ::= 13,14,33,45,37
- Regra 2 ::= 46,47,48
- Regra 3 ::= 1,49,35,12,33,50
- Regra 4 ::= 15
- Regra 5 ::= 14,51
- Regra 6 ::= 38,14,51
- Regra 7 ::= 15
- Regra 8 ::= 49,35,12,33,50
- Regra 9 ::= 15
- Regra 10 ::= 5,14,52,45,33,47
- Regra 11 ::= 15
- Regra 12 ::= 41,49,35,12,40
- Regra 13 ::= 15
- Regra 14 ::= 23,53,54,16
- Regra 15 ::= 3,55,19,48,56
- Regra 16 ::= 20,55,17,53

Regra 17 ::= 4,53,24,55
Regra 18 ::= 11,41,57,58,40
Regra 19 ::= 21,14,59
Regra 20 ::= 18,41,60,61,40
Regra 21 ::= 22,55,7,62,16
Regra 22 ::= 14,51,34,63,33
Regra 23 ::= 15
Regra 24 ::= 8
Regra 25 ::= 14
Regra 26 ::= 33,53,54
Regra 27 ::= 15
Regra 28 ::= 41,55,64,40
Regra 29 ::= 15
Regra 30 ::= 38,55,64
Regra 31 ::= 15
Regra 32 ::= 2,53
Regra 33 ::= 15
Regra 34 ::= 14
Regra 35 ::= 38,57,58
Regra 36 ::= 15
Regra 37 ::= 10
Regra 38 ::= 55
Regra 39 ::= 38,60,61
Regra 40 ::= 15
Regra 41 ::= 8,65,35,53,66
Regra 42 ::= 38,8,65
Regra 43 ::= 15
Regra 44 ::= 33,66
Regra 45 ::= 15
Regra 46 ::= 67,68
Regra 47 ::= 32,69,70
Regra 48 ::= 43,69,70
Regra 49 ::= 69,70
Regra 50 ::= 28,67
Regra 51 ::= 31,67
Regra 52 ::= 27,67
Regra 53 ::= 26,67
Regra 54 ::= 30,67
Regra 55 ::= 29,67
Regra 56 ::= 15
Regra 57 ::= 71,72
Regra 58 ::= 32,69,70
Regra 59 ::= 43,69,70
Regra 60 ::= 6,69,70
Regra 61 ::= 15
Regra 62 ::= 39,71,72
Regra 63 ::= 36,71,72
Regra 64 ::= 25,71,72
Regra 65 ::= 15
Regra 66 ::= 8
Regra 67 ::= 41,55,40
Regra 68 ::= 9,71
Regra 69 ::= 57

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