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Implementación de métodos computacionales

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Actividad 5.1 – Practicando Gramática de contexto libre

Resolver los siguientes ejercicios:

1. Context free grammars

   o Generate a CFG correct and complete for each of the following languages, include its formal definition $G = (V, \Sigma, R, S)$.
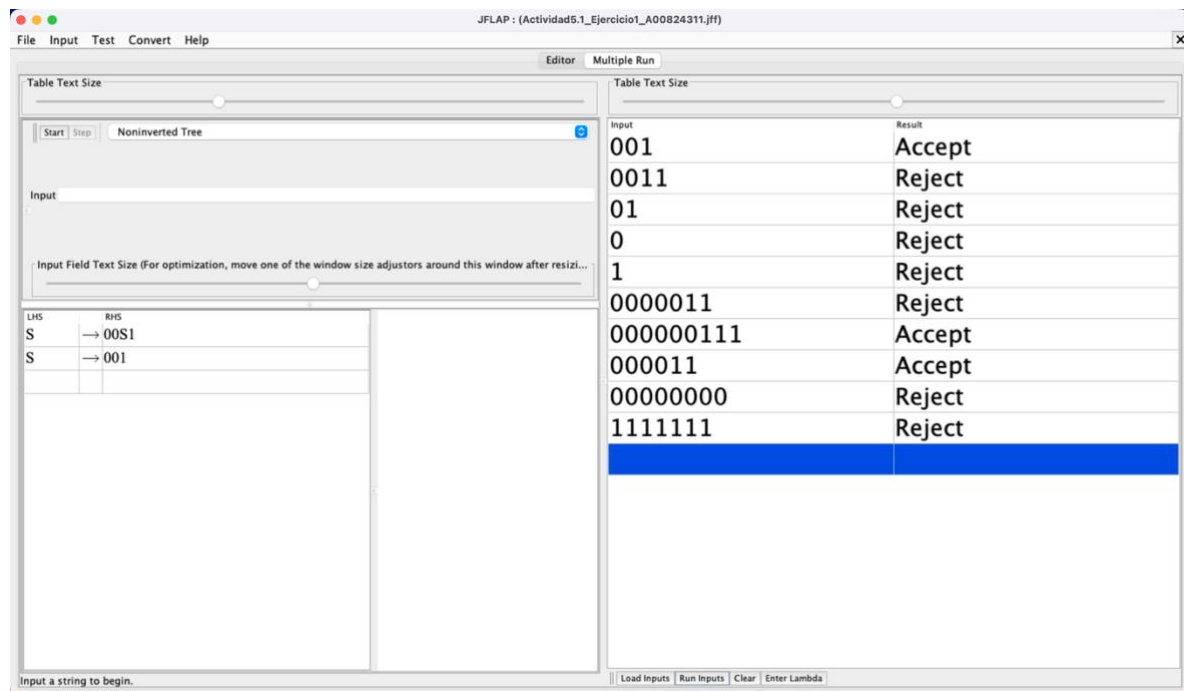
      ▪ $\{0^{2n}1^n : n \geq 1\}$

         $V = \{S\}$

         $\Sigma = \{0, 1\}$

         $R: S \rightarrow 00S1 \mid 001$

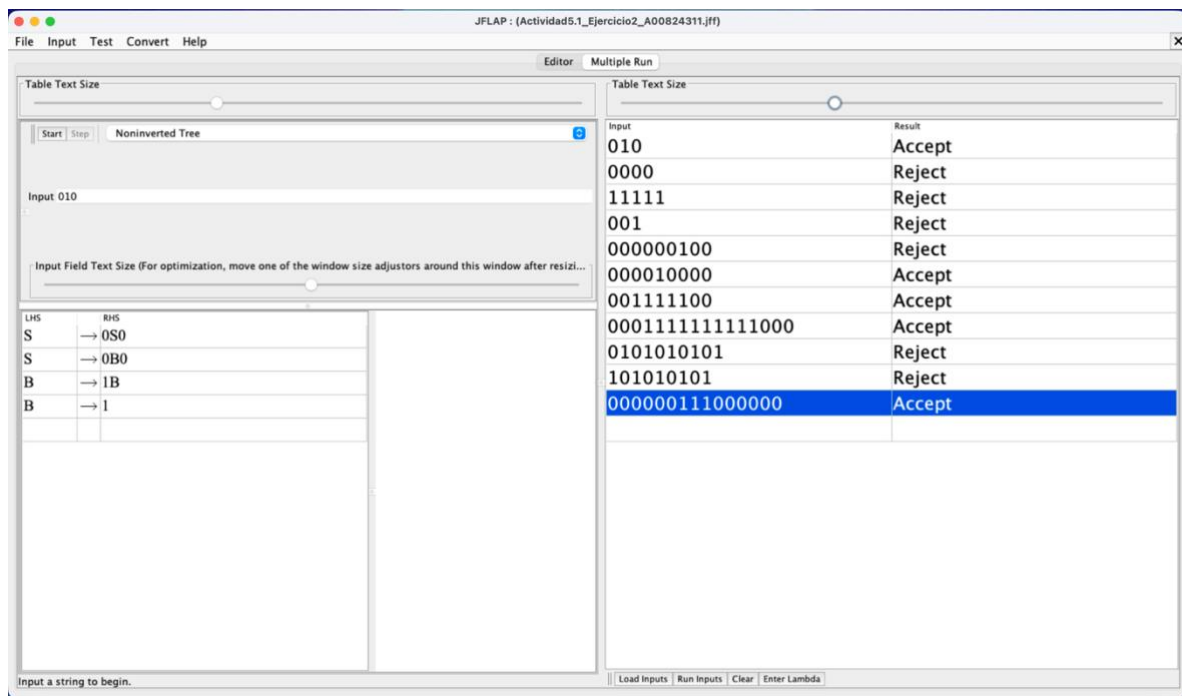Símbolo inicial: S

      ▪ $\{0^n1^m0^n : n \geq 1; m \geq 1\}$

V = {S, E}

Σ = {0, 1}

R: S → 0S0 | 0E0

   B → 1E | 1

Símbolo inicial: S

- {w : w contains more 1s than 0s}

V = {S}

Σ = {0, 1}

R: S → 1 | 0S1 | 1S0 | SS

Símbolo inicial: S

Input	Result
00000000	Reject
1111111	Accept
0000001	Reject
111111101	Accept
101010101010	Accept
010101010101	Accept
0000011111	Reject
000111110	Accept
001111001	Accept
1101011000	Accept
1111100	Accept

LHS → RHS
S → 1
S → 0S1
S → 1S0
S → SS
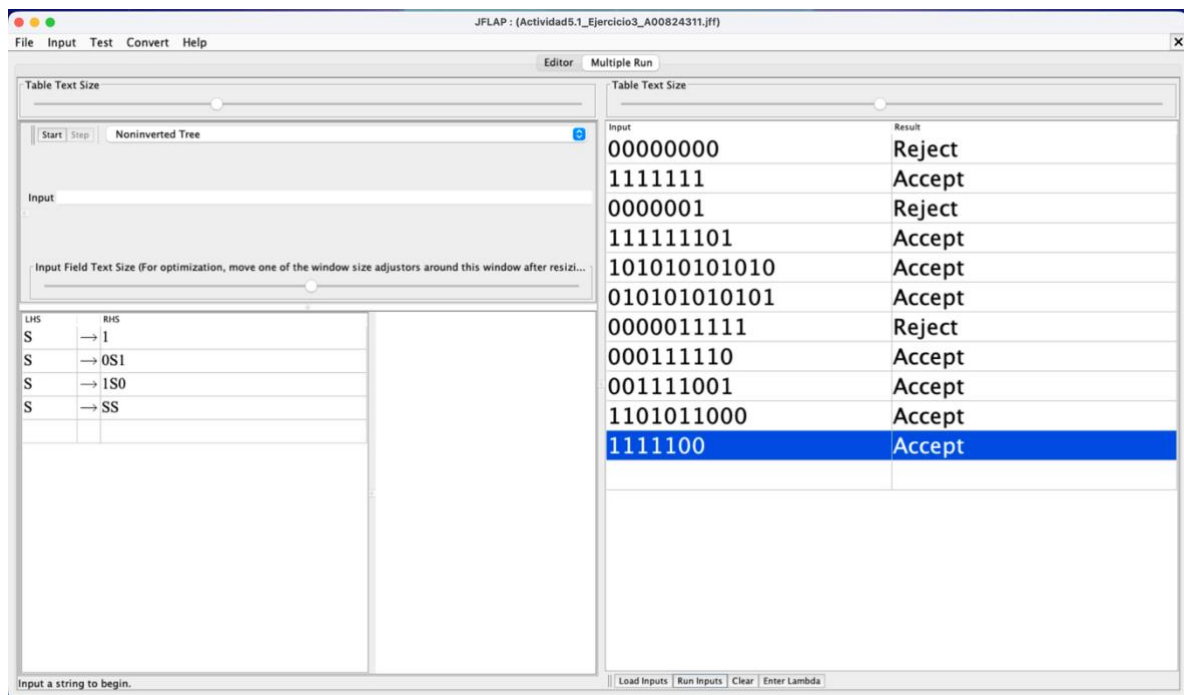
- {w : w the length of w is odd}

$V = \{S, E\}$

$\sum = \{0, 1\}$

R: $S \rightarrow 0E \mid 1E$

　　$E \rightarrow \varepsilon \mid 00E \mid 01E \mid 10E \mid 11E$

Símbolo inicial: S

File   Input   Test   Convert   Help   ✕

Editor   Multiple Run

| Table Text Size | | Table Text Size |

Start   Step   Noninverted Tree   ⟳

Input

Input Field Text Size (For optimization, move one of the window size adjustors around this window after resizi...)

LHS	RHS
S	→ 0E
S	→ 1E
E	→ λ
E	→ 00E
E	→ 01E
E	→ 10E
E	→ 11E

Input	Result
0	Accept
1	Accept
01	Reject
10	Reject
001	Accept
101	Accept
1111	Reject
00000	Accept
101010101	Accept
010101	Reject
00001	Accept
11111010	Reject

Input a string to begin.

Load Inputs   Run Inputs   Clear   Enter Lambda