

Seminar 13

PDA

Define PDA corresponding to the following languages:

- 1) $L_1 = \{0^n 1^{2n}, n \in \mathbb{N}\}$, $L'_1 = \{0^n 1^{2n}, n \in \mathbb{N}^*\}$ - at least 2 PDA for each case
 - 2) $L_2 = \{0^{2n} 1^n, n \in \mathbb{N}\}$, $L'_2 = \{0^{2n} 1^n, n \in \mathbb{N}^*\}$ - at least 2 PDA for each case
 - 3) $L_3 = \{ww^R, w \in \{a, b\}^+\}$
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Seminar 14

Attribute Grammars

Define AG for:

1. Computing the number of vowels in a letter string
2. Computing the value of an arithmetic expression with $+$, $-$, $/$, $*$, $($, $)$
3. Checking if a natural number is divisible by 3

3-Address Code

Write the 3-address code sequence (triplets/quadruples) for

1. If $(a > b)$ OR c AND $(d > e)$
 then $a := -1$
 else $a := b * c + 4$
EndIf
 2. While $(a < b)$ do
 $a := a + 1$
 $b := b * b$
EndWhile
 3. For $i := 1, n$ do
 $a := a + i$
EndFor
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