Gramatica de precedenta simpla

- mai exista (si nu vom face): gramatici de precedenta slaba, gramatici de precedent a operatorilor
- se va face doar la seminar

- Analiza ascendenta
- Depisteaza limita dreapta si a celei stanga pentru a face o reducere
  Se folosesc relatiile <• , •> , =• (relatii de precedent)

Relatii de precedenta Wirth-Weber
$R_{<\bullet} \subset (N \cup \Sigma \cup \{\$\}) \times (N \cup \Sigma \cup \{\$\})$
$R_{=\bullet} \subset (N \cup \Sigma) \times (N \cup \Sigma)$
$R_{\bullet>} \subset (N \cup \Sigma \cup \{\$\}) \times (\Sigma \cup \{\$\})$

$X =\bullet Y$: $A \rightarrow \alpha XY\gamma \in P$
$X <\bullet Y$: $A \rightarrow \alpha XB\gamma \in P$, $B =>^{+} Y\gamma$
$X \bullet> a$: $A \rightarrow \alpha BY\gamma \in P$, $B =>^{+} \gamma X$, $Y =>^{*} a\delta$
$\$ <\bullet X$: $S =>^{+} X\alpha$
$X \bullet> \$$: $S =>^{+} \alpha X$

Definitie:
gramatica de precedenta simpla
este o gramatica indep. de context proprie
(inclusiv ε-independenta)
- unic invertibila:
  nu exista 2 reguli de productie cu acelasi membru drept
- intre oricare 2 simboluri exista cel mult o relatie de precedenta

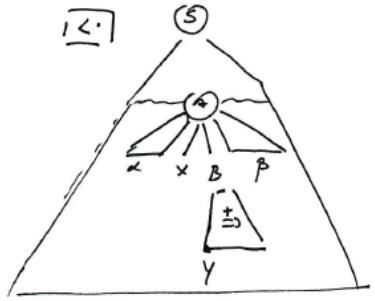
Analizorul de precedenta simpla
- construieste tabelul de precedenta a operatorilor
- analizeaza o secventa de terminale

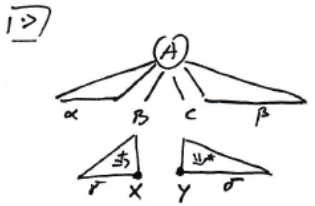
modelul stivei ~ LR
<• si =• - deplasare
•> - reducere Y <• X1 =• …=• Xi .> Z
A → X1 … Xi

Gramatici de precedență simple

$X \doteq Y$ ∃ $A \Rightarrow \alpha XY\beta$
$X \lessdot Y$ $A \Rightarrow \alpha XB\beta$, $B \overset{+}{\Rightarrow} Y\gamma$
$X \gtrdot Y$ $A \Rightarrow \alpha BC\beta$
$B \overset{+}{\Rightarrow} \gamma X$
$C \overset{*}{\Rightarrow} Y\delta$, $Y \in \Sigma$

$\$ \lessdot X$ $S \overset{*}{\Rightarrow} x\beta$
$Y \gtrdot \$$ $S \overset{*}{\Rightarrow} \alpha Y$





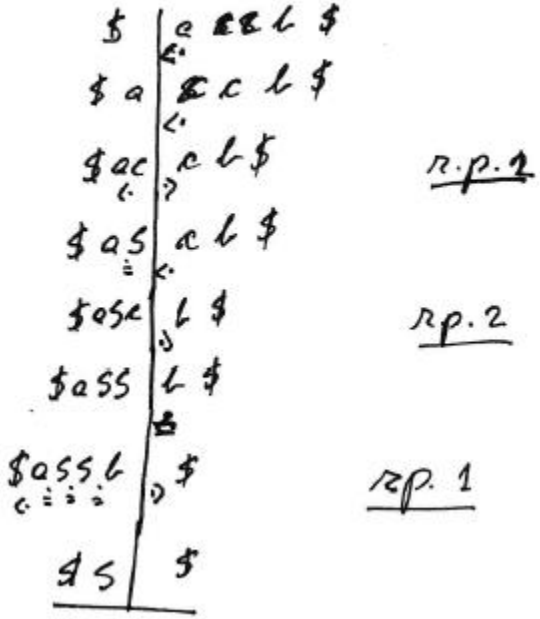
Exemplu:
S → aSSb
S → c

	S	**a**	**b**	**c**	**$**
S	= ·	<·	= ·	<·	
a	= ·	<·		<·	
b		·>	·>	·>	·>
c		·>	·>	·>	·>
$		<·		<·	

Cuvantul: accb ?∈L(G)

cuvântul acel

Modelul stivei
(metode deplasare - reducere)



Gramatica de precedenta a operatorilot

Notatie: $\mu \in N \cup \{\varepsilon\}$

exista o reg.productie de forma:

a $=\bullet$ b : $A \rightarrow \alpha\ a\ \mu\ b\ \beta \in P$

a $<\bullet$ b : $A \rightarrow \alpha\ a\ B\ \beta \in P$, $B =>^{+} \mu\ b\ \delta$

a $\bullet>$ b : $A \rightarrow \alpha\ B\ b\ \ \beta \in \in P$, $B =>^{+} \gamma\ a\ \mu$

\$ $<\bullet$ b : $S =>^{+} \mu\ b\ \alpha$

X $\bullet>$ \$: $S =>^{+} \alpha\ a\ \mu$

X $\bullet>$ a : $A \rightarrow \alpha B Y \gamma \in P$, $B =>^{+} \gamma X$, $Y =>^{*} a\delta$

\$ $<\bullet$ X : $S =>^{+} X\alpha$

X $\bullet>$ \$: $S =>^{+} \alpha X$

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