\$SI aAcBe\$ \$AI b Ab\$ \$BI d\$
\$S□ aAcBe□ aAbcBe□ abbcBe□ abbcde\$
\$abbcde□ aAbcde□ aAcBe□ S\$
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\$FIRSTleft(alpha <i>iright</i>)= <i>left{a mid alpha</i> i stackrel <i>{}{rightarrow} a beta, a in V</i> T, alpha <i>i</i> □ <i>beta inleft(V</i> T cup V <i>Nright)</i> ^right}\$											
☐ ☐ \$alphai stackrel{*}{Rightarrow} varepsilon\$☐ ☐ ☐ \$varepsilon in FIRST left(alphairight)\$											
• FOLLOW[]											
\$FOLLOW(A)=left{a mid S stackrel{*}{Rightarrow} Idots text { Aa } Idots, a in V_Tright}\$											
• 🗆 🗎 🗎 🗎 🗎 🗎 🖺 🖺 🖺 🖺 🖺 🖺 🖺 🖺 \end{vmatrix} : \$\$ A rightarrow A alpha1left A alpha2right Idotsleft A alpha4 m }right beta1left beta2right Idots mid betan \$\$ 🗎 🗎 🗎 🖺 🖺 🖺 🖺 🖺 🗒 : \$\$ begin{aligned} & A rightarrow beta1 A ^{prime}left beta2 A ^{prime}right Idots mid betan A ^{prime} \& A ^{prime} rightarrow alpha1 A ^{prime}left alpha2 A ^{prime}right Idotsleft alpham A ^{prime}right varepsilon end{aligned} \$\$\$											

• □ □ □ □ □ □ □ □ □ □ □ \$\$ A rightarrow alpha beta1left alpha beta2right Idotsleft alpha betanright gamma \$\$ □ □ □ □ \$\$ begin{aligned} & A rightarrow alpha A ^{prime} mid gamma \ & A ^{prime} rightarrow beta1left beta2right Idots mid betan end{aligned} \$\$\$												
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LL(1) □

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• FIRST
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mid S stackrel{}{Rightarrow} Idots text { Aa } Idots, a in V_Tright}\$ \(\) \$mathrm{S} stackrel{}{Rightarrow} Idots mathrm{A}\$ \(\)

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•
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LL(1) □
□ □ □ □ LL(1)□ □ □ □ □ □ □ □ □ □ □ □ □ □ \$A□ alphamidbeta\$□ □ □ :

•	\$F	IRST(alpha	a) cap	FIRST(beta)=phi		
•		\$beta\$ □		\$varepsilon\$, □	\$FIRST(alpha) cap FOLLO	W(A)=phi\$

 G=left(V_{T}, V_{N}, S, varphiright)\$0 0 0 \$alpha beta delta\$0 0 0 \$G\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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LR(k)□			
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- - □ \$operatorname{action}left[S { m }, a _{ i } right]=operatorname{shift} S , S =operatorname{goto}left[S _{ m }, a _{ i } right]\$□ □ □ □ □ □ : \$left(S0 S1 Idots Sm S, a{i+1} Idots an \$right)\$
 - □ action $f[S \{ m \}, a _{i \} i \}$ reduce by \$A rightarrow beta\$□ □ □ □ □ □ : \$left(S0 S1 Idots S{m-r} S, ai a{i+1} Idots an \$right)\$□ \$S=goto[S{m-r},A]\$

LRO 0 0 0 0 0 0 0

LR(0)□ □ \$AO •XYZ\$O O \$XYZ\$O O O O SAO X•YZ\$O O O O \$X\$O O O SAO XYZ•\$O O SXYZ\$O O O □ □ □ □ □ □ □ □ □ □ □ □ \$A□ varepsilon\$□ □ □ LR(0)□ □ □ □ □ □ □ □ □ □ □ \$A□ •\$□ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 \$A rightarrow beta 1 bullet beta 2\$ \, \quad \quad \, \qu stackrel{*}{Rightarrow} alpha A omega Rightarrow alpha beta 1 beta 2 omega\$0 0 0 0 0 0 0 0 0 0 • 🛘 🗸 🖂 🗸 🖂 🗘 \$A rightarrow alpha cdot B beta\$ 🖂 🖂 🖂 \$gamma=delta alpha\$ 🖂 🖂 🖂 , □ □ □ □ □ B\$rightarrow eta\$□ □ □ \$B rightarrow bullet eta\$□ □ □ \$gamma=delta □ □ closure

0 0 0 0 0 0 0 0 0 **LR(0)**0 0 0 0 0 0 0 0 0 0 0 0 **LR(0)**0 0 \$\$'0 **•**\$\$0 0 0 0 0

□ □ □ go
□ \$I\$□ □ \$G\$□ □ □ \$LR(0)\$□ □ □ ,\$X\$□ □ □ □ □ □ □ □ □ □ \$go(I, X) = closure(J)\$□ □ \$J = { A rightarrow alpha X cdot beta mid □ A rightarrow alpha cdot X beta □ □ □ \$J\$□ □ □ □ □ □ \$A rightarrow alpha Cdot X beta\$□ □ □ □ □ □ \$gamma = delta alpha\$□ □ □ □ □ □ \$J\$□ □ □ □ \$A rightarrow alpha X cdot beta\$□ □ □ □ \$delta alpha X\$□ □ \$gamma X\$□ □ □ □ □ □ □ □ □ □
\$go (I, X)\$ \(\Boxedot\) \(\
□ □ □ □ □ □ □ □ \$alpha\$□ □ □ □ □ □ □ \$I\$□ □ □ □ \$slpha X\$□ □ □ □ □ □ \$go(I,X)\$□ \$
LR(0)
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0 0 0 \$varepsilon\$0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
□ □ □ □ □ \$\$ rightarrow a A b B quad A rightarrow c A d quad B rightarrow c B mid d\$□ □ □ □ □ □ □
□ □ □ □ □ □ □ □ □ □ □ \$varepsilon\$□ □ □ □ □ \$lo\$□ □ □ □ □ \$go(l0,S),go(l0,a),go(l0,b)\$
□ □ SLR(1)□ LR(0)
DFA□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
• 0 0 -0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 B
• 0 0 -0 0 0 0 0 0 0 0 0 0 A O 0 B
1. \$G ^{prime}\$ \$L R (0)\$ \$C = left{ I _0, I _1, Idots, I _{ n } right}\$
2. \$i\$(\$li\$

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