

Syntax

$$S \rightarrow () \mid (S) \mid S S$$

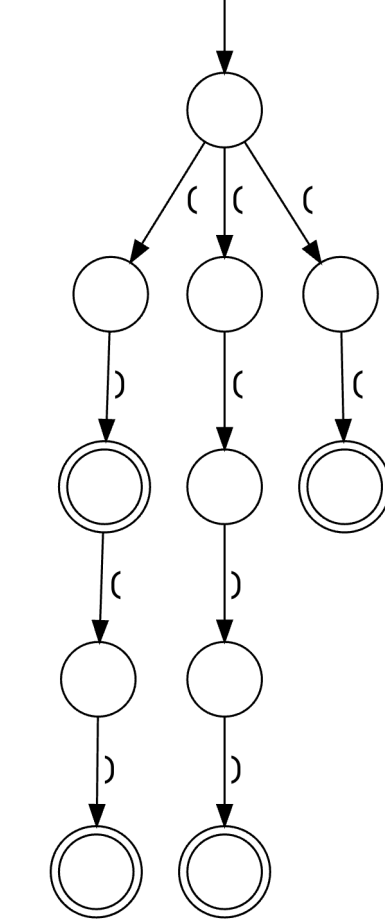
CNF Grammar

$$\begin{aligned} S &\rightarrow L R & F &\rightarrow S R \\ S &\rightarrow L F & L &\rightarrow (\\ S &\rightarrow S S & R &\rightarrow) \end{aligned}$$

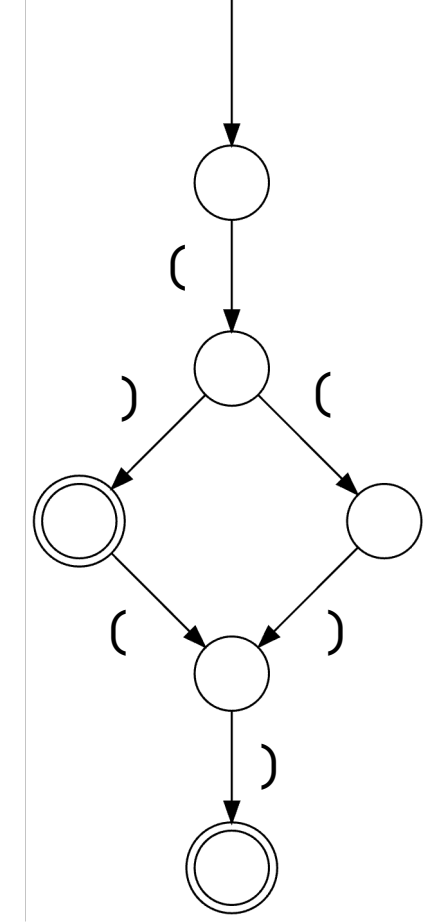
n-Grammar

$S \rightarrow q_{00}Lq_{10} \ q_{10}Rq_{31}$	
$S \rightarrow q_{00}Lq_{21} \ q_{21}Rq_{31}$	$q_{10}Bq_{31} \rightarrow)$
$S \rightarrow q_{00}Lq_{01} \ q_{01}Fq_{31}$	$q_{11}Bq_{21} \rightarrow)$
$S \rightarrow q_{00}Lq_{10} \ q_{10}Fq_{31}$	$q_{20}Aq_{21} \rightarrow ($
$S \rightarrow q_{00}Lq_{10} \ q_{10}Rq_{20}$	$q_{20}Aq_{30} \rightarrow ($
$S \rightarrow q_{00}Sq_{20} \ q_{20}Sq_{31}$	$q_{21}Bq_{31} \rightarrow)$
	$q_{30}Bq_{31} \rightarrow)$
$q_{20}Sq_{31} \rightarrow q_{20}Lq_{21} \ q_{21}Rq_{31}$	$q_{10}Bq_{31} \rightarrow)$
$q_{20}Sq_{31} \rightarrow q_{20}Lq_{30} \ q_{30}Rq_{31}$	$q_{11}Bq_{21} \rightarrow)$
$q_{00}Sq_{20} \rightarrow q_{00}Lq_{10} \ q_{10}Rq_{20}$	$q_{20}Aq_{21} \rightarrow ($
$q_{01}Fq_{31} \rightarrow q_{01}Sq_{21} \ q_{21}Rq_{31}$	$q_{20}Aq_{30} \rightarrow ($
$q_{01}Sq_{21} \rightarrow q_{01}Lq_{11} \ q_{11}Rq_{21}$	$q_{21}Bq_{31} \rightarrow)$
$q_{10}Fq_{31} \rightarrow q_{10}Sq_{21} \ q_{21}Rq_{31}$	$q_{30}Bq_{31} \rightarrow)$
$q_{10}Sq_{21} \rightarrow q_{10}Lq_{11} \ q_{11}Rq_{21}$	
$q_{00}Sq_{31} \rightarrow q_{00}Lq_{10} \ q_{10}Rq_{31}$	
$q_{00}Sq_{31} \rightarrow q_{00}Lq_{21} \ q_{21}Rq_{31}$	

DFA



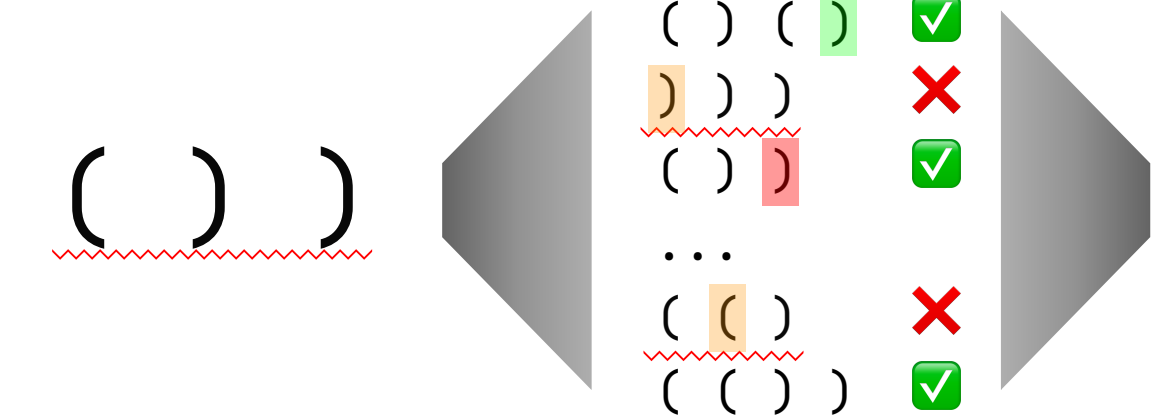
DFA*



Decoded Repairs

1. ()
2. () ()
3. (())

Code



Edit automaton

