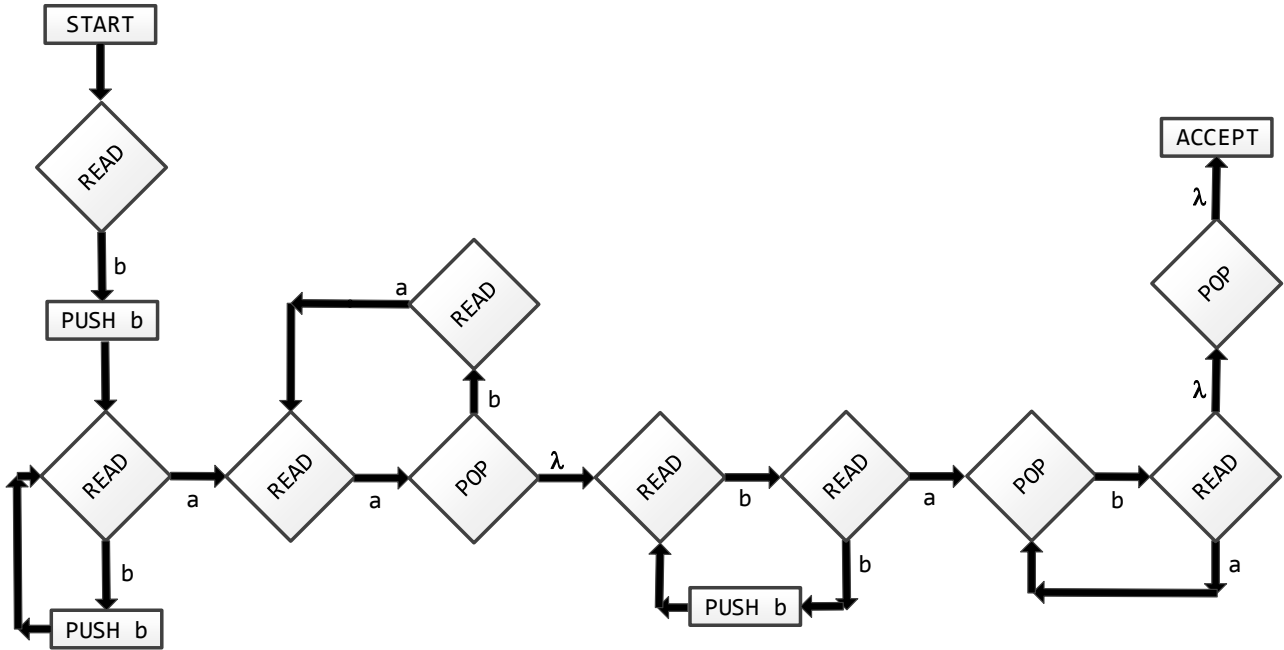


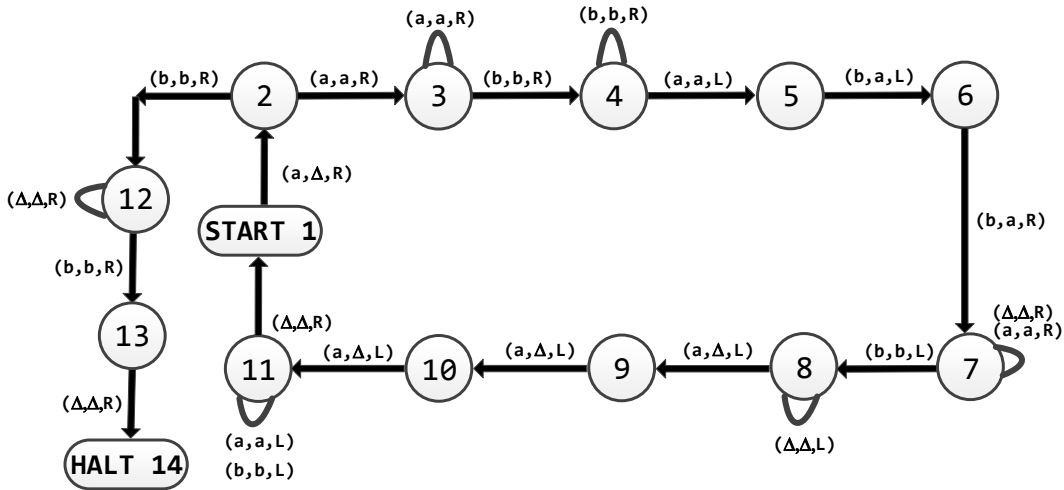


CEVAPLAR



1. Yukarıdaki PDA'nın kabul ettiği dili $L = \{ \dots \}$ formatında yazınız. (40P)

$$L = \{ b^n a^{2n+2} b^{2m+1} a^m \mid n > 0, m > 0 \}$$

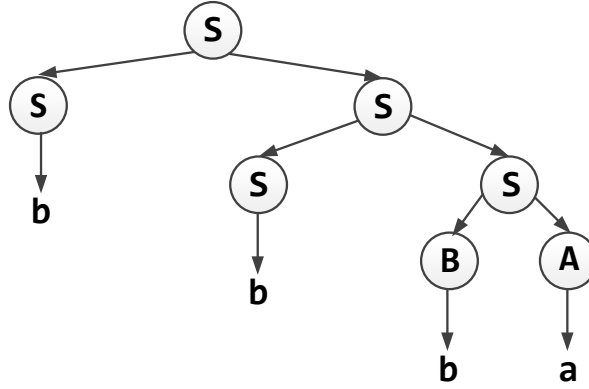
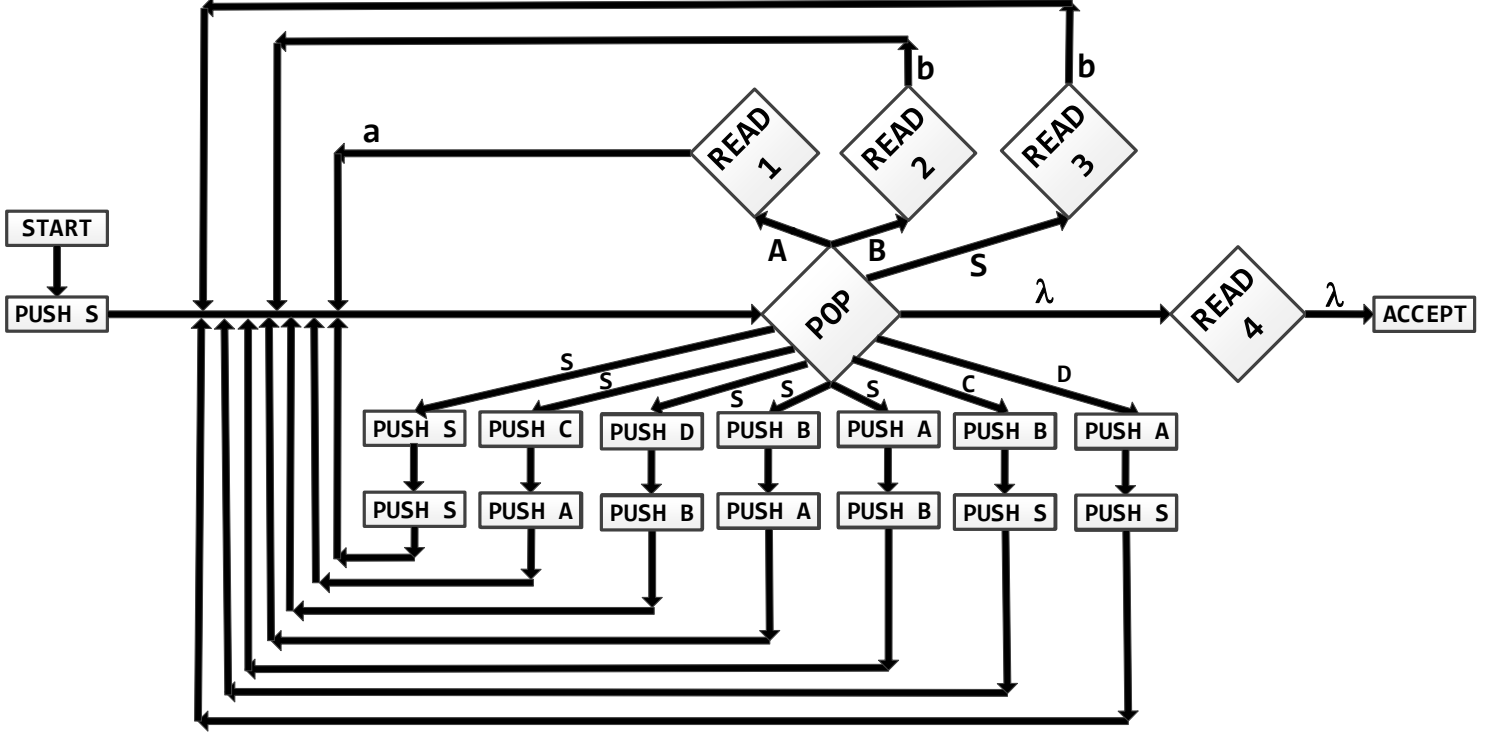


2. Yukarıdaki TM'nin kabul ettiği dili $L = \{ \dots \}$ formatında yazınız. (30P)

$$L = \{ a^{n+1} b^{2n+1} a^n b \mid n = 0, 1, 2, \dots \}$$

$S \rightarrow SS \mid AC \mid BD \mid AB \mid BA \mid b$
 $C \rightarrow SB$
 $D \rightarrow SA$
 $A \rightarrow a$
 $B \rightarrow b$

3. Yukarıdaki gramerin nondeterministic PDA eşdeğeri ve **bbba** için verilen parse ağacını kullanarak tabloyu doldurunuz. (30P)



	<i>State</i>	<i>Stack</i>	<i>Tape</i>	11	Read 3	S	bbba
01	Push S	S	bbba	12	Pop	λ	bbba
02	Pop	λ	bbba	13	Push A	A	bbba
03	Push S	S	bbba	14	Push B	BA	bbba
04	Push S	SS	bbba	15	Pop	A	bbba
05	Pop	S	bbba	16	Read 2	A	bbba
06	Read 3	S	bbba	17	Pop	λ	bbba
07	Pop	λ	bbba	18	Read 1	λ	bbba
08	Push S	S	bbba	19	Pop	λ	bbba
09	Push S	SS	bbba	20	Read 4	λ	bbba
10	Pop	S	bbba	21	Accept	λ	bbba