Университет ИТМО

Факультет ПИ и КТ

Лабораторная работа № 2

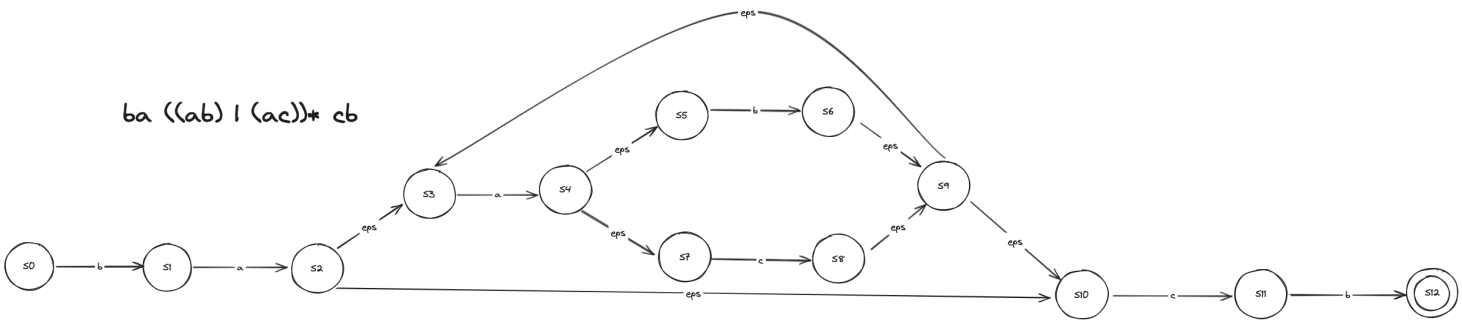
По Дисциплине «Compilers». V3.

Выполнил: Дробыш Дмитрий Александрович

Группа:P33082

Преподаватель: Лаздин Артур Вячеславович

Санкт-Петербург,
2024



STATE	a	b	c
S0	-	S1	-
S1	S2, S3, S10	-	-
S2, S3, S10	S4, S5, S7	-	S11
S4, S5, S7	-	S6, S9, S10, S3	S8, S9, S10, S3
S11	-	S12	-
S12	-	-	-
S6, S9, S10, S3	S4, S5, S7	-	S11
S8, S9, S10, S3	S4, S5, S7	-	S11

1) mov(S0, b) → S1;
$\varepsilon_{closure}$(S1) → {S1};

2) mov(S1, S2)
$\varepsilon_{closure}$(S2) → {S2, S3, S10};

3) mov(S2, S3, S10, a) → {S4}
$\varepsilon_{closure}$(S4) → {S4, S5, S7}

4) mov(S2, S3, S10, c) → {S11}
$\varepsilon_{closure}$(S11) → {S11}

5) mov(S11, b) →{S12}
S12 - Допуск

6) mov(S4, S5, S7, b) → {S6}
$\varepsilon_{closure}$(S6)→ {S6, S9, S10, S3}

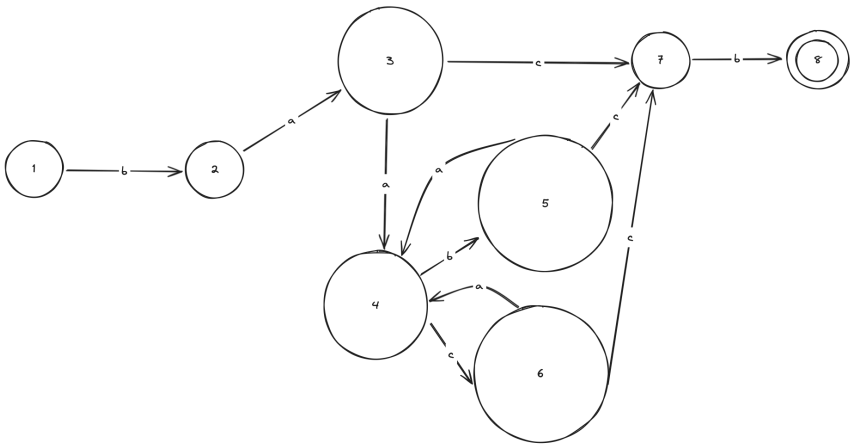
7) mov(S4, S5, S7, c) → {S8}
$\varepsilon_{closure}$(S8) → {S8, S9, S10, S3}

8) mov(S6, S9, S10, S3, c) → {S11}
S11 exists

9) mov(S8, S9, S10, S3 c) → {S11}
S11 exists

10) mov (S6, S9, S10, S3, a) → {S4}
$\varepsilon_{closure}$(S4) → {S4, S5, S7}

11) mov (S8, S9, S10, S3, a) → {S4}
$\varepsilon_{closure}$(S4) → {S4, S5, S7}



Осталось минимизировать

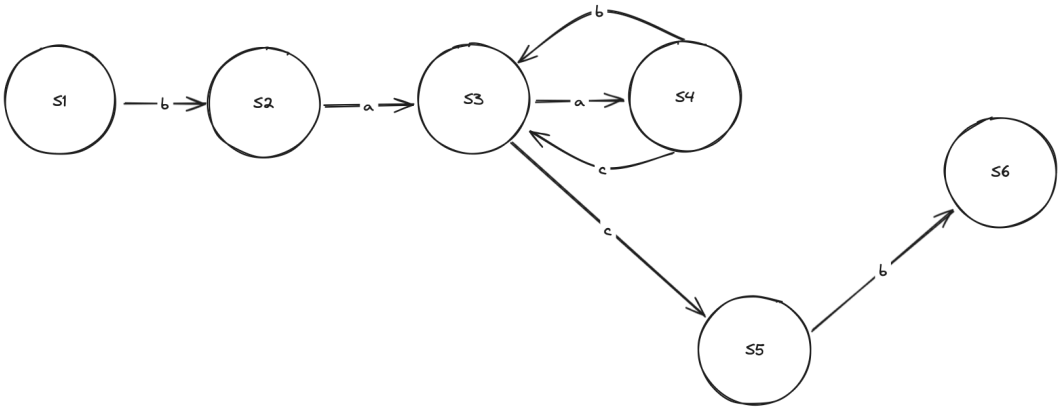
P0 : A0 = {8}, B0 = {1,2,3,4,5,6,7};
P1: A1 = {8}, B1 = {3,5,6}, C1 = {1,2,4,7,8}

				P0			P1		
S	**a**	**b**	**c**	**a**	**b**	**c**	**a**	**b**	**c**
1	-	2	-	-	B0	-	-	C1	-
2	3	-	-	B0	-	-	B1	-	-
3	4	-	7	B0	-	B0	C1	-	C1
4	-	5	6	-	B0	B0	-	B1	B1
5	4	-	7	B0	-	B0	C1	-	C1
6	4	-	7	B0	-	B0	C1	-	C1
7	-	8	-	-	A0	-	-	A1	-
8	-	-	-	-	-	-	-	-	-

S1 = 1, S2 = 2, S3 = 3,5,6, S4 = 4, S5 = 7, S6 = 8;

MIN

ba ((ab) | (ac))* cb



Examples:
1)baabacabaccb
Stage 1 -- OK
Moving to Stage 2

Stage 2 -- OK
Moving to Stage 3

Stage 3 -- OK
Moving to Stage 4

Stage 4 -- OK
Moving to Stage 3

Stage 3 -- OK
Moving to Stage 4

Stage 4 -- OK
Moving to Stage 3

Stage 3 -- OK
Moving to Stage 4

Stage 4 -- OK
Moving to Stage 3

Stage 3 -- OK
Moving to Stage 4

Stage 4 -- OK
Moving to Stage 3

Stage 3 -- OK
Moving to Stage 4

Stage 5 -- OK
Moving to Stage 6

2)bacb
Stage 1 -- OK
Moving to Stage 2

Stage 2 -- OK
Moving to Stage 3

Stage 3 -- OK
Moving to Stage 4

Stage 5 -- OK
Moving to Stage 6

3)abcb
Stage 1 -- FAILED

4)babc
Stage 1 -- OK
Moving to Stage 2

Stage 2 -- OK
Moving to Stage 3

Stage 3 -- FAILED