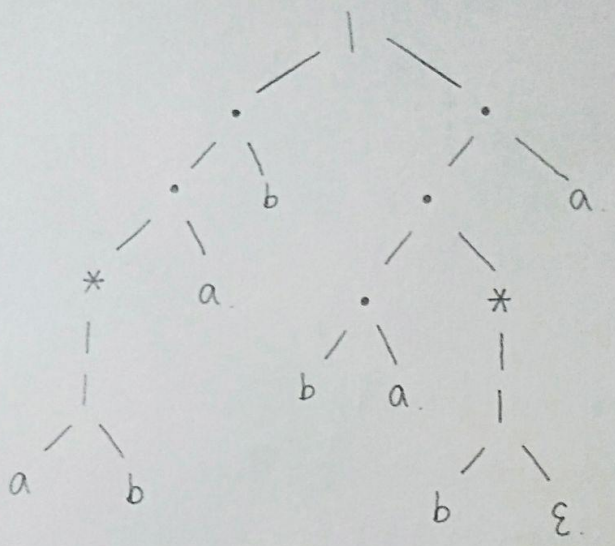
1.



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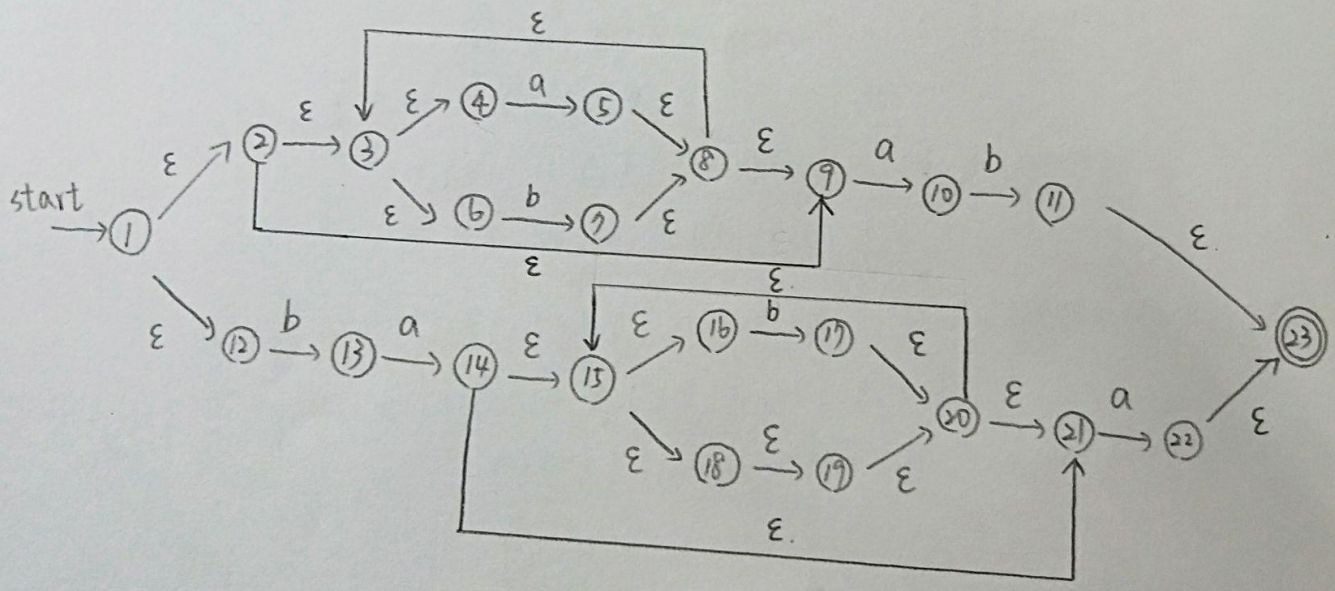
編譯器 H.W.3.

2. $(a|b)^*\ ab\ |\ ba(b|\varepsilon)^*\ a$



3.

ε-closure $(\{1\}) = \{1, 2, 12, 3, 9, 4, 6\} = A$

ε-closure $(\text{move}(A, a)) = \varepsilon$-closure $(\{10, 5\})$

$= \{10, 5, 8, 3, 9, 4, 6\} = B.$

ε-closure $(\text{move}(A, b)) = \varepsilon$-closure $(\{13, 7\})$

$= \{13, 7, 8, 3, 9, 4, 6\} = C$

ε-closure $(\text{move}(B, a)) = \varepsilon$-closure $(\{5, 10\})$

$= \{10, 5, 8, 3, 9, 4, 6\} = B$

ε-closure(move(B, b)) = ε-closure({7, 11})

= {7, 11, 8, 23, 3, 9, 4, 6} = D.

ε-closure(move(C, a)) = ε-closure({5, 10, 14})

= {5, 10, 14, 8, 15, 21, 3, 9, 16, 18, 4, 6, 19, 20} = E.

ε-closure(move(C, b)) = ε-closure({7})

= {7, 8, 3, 9, 4, 6} = F

ε-closure(move(D, a)) = ε-closure({5, 10})

= {10, 5, 8, 3, 9, 4, 6} = B.

ε-closure(move(D, b)) = ε-closure({7})

= {7, 8, 3, 9, 4, 6} = F.

ε-closure(move(E, a)) = ε-closure({5, 10, 22})

= {5, 10, 22, 8, 23, 3, 9, 4, 6} = G.

ε-closure(move(E, b)) = ε-closure({7, 11, 17})

= {7, 11, 17, 8, 23, 20, 3, 9, 15, 21, 4, 6, 16, 18, 19} = H

ε-closure(move(F, a)) = ε-closure({5, 10})

= {10, 5, 8, 3, 9, 4, 6} = B.

ε-closure(move(F, b)) = ε-closure({7})

= {7, 8, 3, 9, 4, 6} = F

ε-closure(move(G, a)) = ε-closure({5, 10})

= {10, 5, 8, 3, 9, 4, 6} = B.

ε-closure(move(G, b)) = ε-closure({7, 11})

= {7, 11, 8, 23, 3, 9, 4, 6} = D.

ε-closure(move(H, a)) = ε-closure({5, 10, 22})

= {5, 10, 22, 8, 23, 3, 9, 4, 6} = G.

ε-closure(move(H, b)) = ε-closure({7, 17})

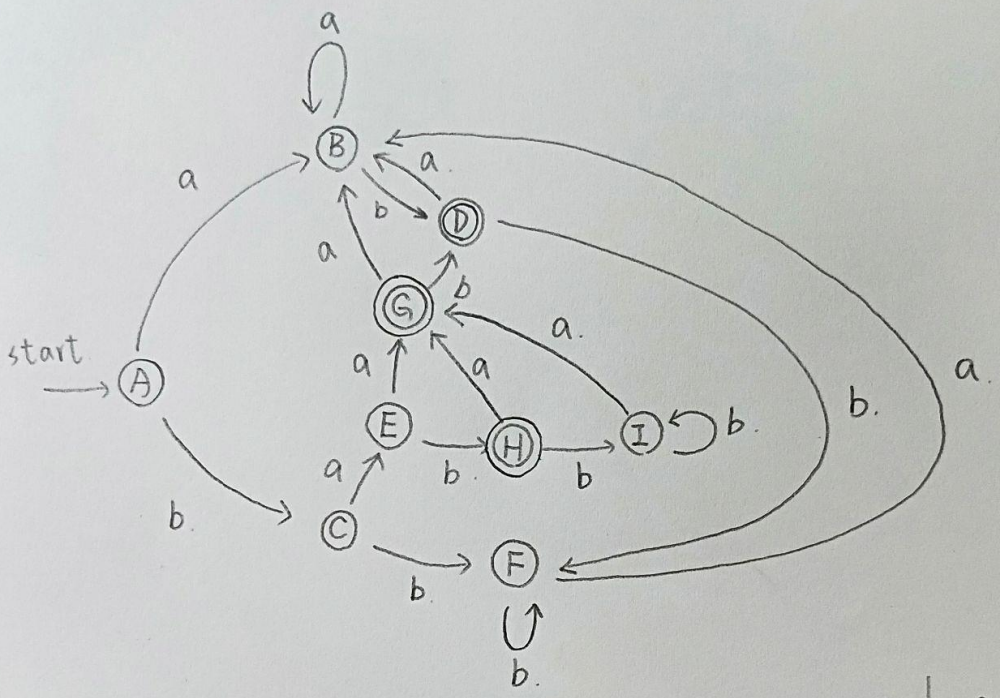
= {7, 17, 8, 20, 3, 9, 15, 21, 4, 6, 16, 18, 19} = I.

ε-closure(move(I, a)) = ε-closure({5, 10, 22})

= {5, 10, 22, 8, 23, 3, 9, 4, 6} = G.

ε-closure(move(I, b)) = ε-closure({7, 17})

= {7, 17, 8, 20, 3, 9, 15, 21, 4, 6, 16, 18, 19} = I.



	a	b
A = {1, 2, 3, 4, 6, 9, 12}	B	C
B = {3, 4, 5, 6, 8, 9, 10}	B	D
C = {3, 4, 6, 7, 8, 9, 13}	E	F
v D = {3, 4, 6, 7, 8, 9, 11, 23}	B	F
E = {3, 4, 5, 6, 8, 9, 10, 14, 15, 16, 18, 19, 20, 21}	G	H
F = {3, 4, 6, 7, 8, 9}	B	F
v G = {3, 4, 5, 6, 8, 9, 10, 22, 23}	B	D
v H = {3, 4, 6, 7, 8, 9, 11, 15, 16, 17, 18, 19, 20, 21, 23}	G	I
I = {3, 4, 6, 7, 8, 9, 15, 16, 17, 18, 19, 20, 21}	G	I