Variant 11

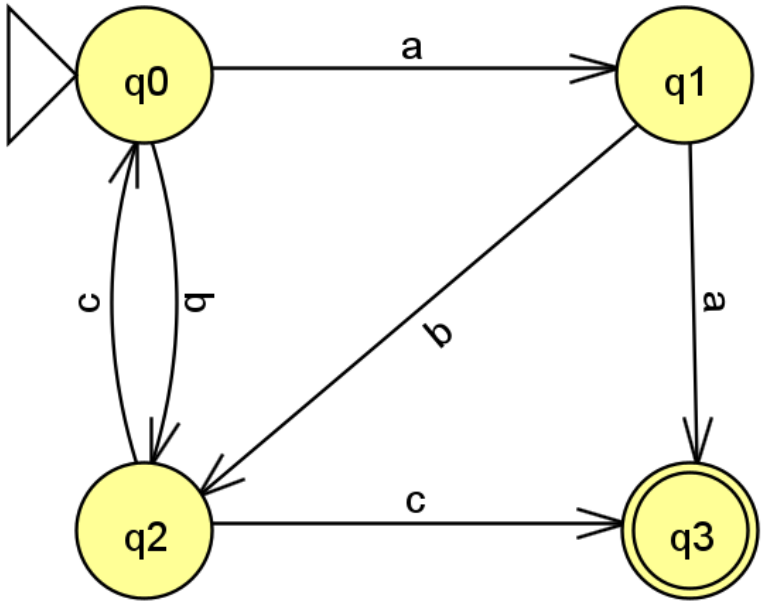
AF=(Q, Σ, δ, q_0, F),
Q = { q_0, q_1, q_2 , q_3 },
Σ = { a, b, c }, F = { q_3 }.
δ (q_0, a) = q_1 ,
δ (q_1, b) = q_2,
δ (q_2, c) = q_0 ,
δ (q_1, a) = q_3,
δ (q_0, b) = q_2,
δ (q_2, c) = q_3.

As we can see, this automaton is non-deterministic (NFA) because it has 2 transitions from current state (q_2) on a single input (c).

NFA transition table:

	a	**b**	**c**
-> q_0	q_1	q2	-
q_1	q_3	q_2	-
q_2	-	-	q_0q_3
***q_3**	-	-	-

NFA graph:



DFA transition table:

	a	**b**	**c**
-> q_0	q_1	q2	-
q_1	q_3	q_2	-
q_2	-	-	q_0q_3
***q_3**	-	-	-
***q_0q_3**	q_1	q_2	-

Analytical representation:

DFA = (Q, Σ, δ, q_0, F)

Q = {q_0, q_1, q_2, q_3, q_0q_3}

Σ = {a, b, c}, F = {q_3, q_0q_3}

δ(q_0, a) = q_1

δ(q_0, a) = q_2

δ(q_1, a) = q_3

δ(q_1, b) = q_2

δ(q_2, c) = q_0q_3

δ(q_0q_3, a) = q_1

δ(q_0q_3, b) = q_2

DFA graph: