

Date: /

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1. $S \rightarrow aS \mid bB \mid b$
 $B \rightarrow cS$
 $C = aS$

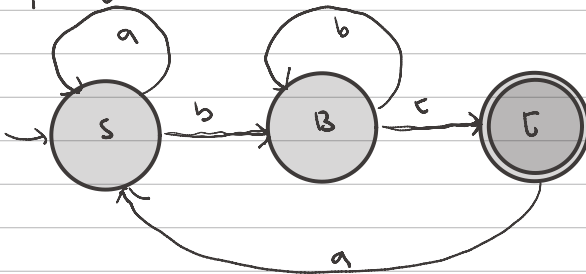
| δ | a | b | c |
|----------|---|---|---|
| S | S | B | - |
| B | - | B | S |
| C | S | - | - |

$Q = \{S, B, C\}$

$\Sigma = \{a, b, c\}$

$s = S$

$F = C$

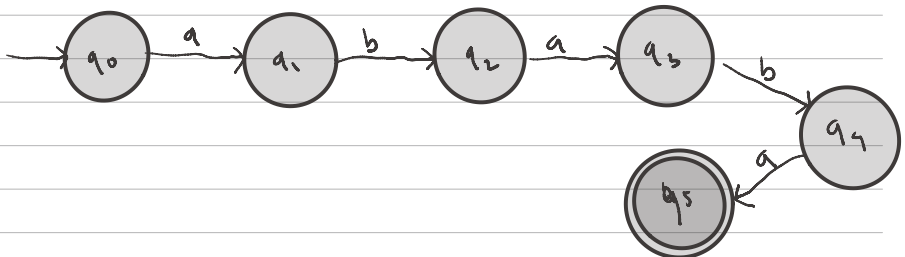


2. $Q = \{q_0, q_1, q_2, q_3, q_4, q_5\}$

$\Sigma = \{a, b\}$

$s = q_0$

$F = q_5$



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Tabel transisi

| δ | a | b |
|----------|-------|-------|
| q_0 | q_1 | - |
| q_1 | - | q_2 |
| q_2 | q_3 | - |
| q_3 | - | q_4 |
| q_4 | q_5 | - |
| q_5 | - | - |

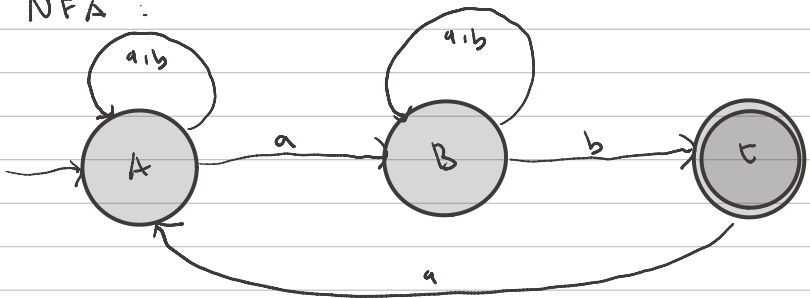
3. $Q = \{A, b, c\}$

$\Sigma = \{a, b\}$

$S = A$

$F = \{c\}$

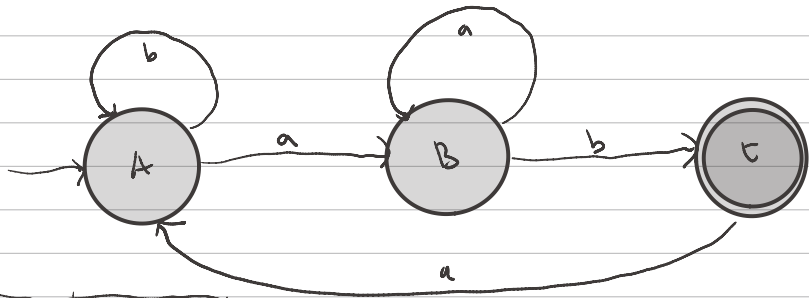
NFA :



| δ | a | b |
|----------|------------|-------------|
| A | $\{A, B\}$ | $\{A\}$ |
| B | $\{B\}$ | $\{B, C\}$ |
| C | $\{A\}$ | \emptyset |

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DFA:



| δ | a | b |
|----------|---|---|
| A | B | A |
| B | B | C |
| C | A | - |

4. Grammar:

$Q = \{Q_0, Q_1, Q_2, Q_3\}$

$\Sigma = \{1, 0\}$

$S = Q_0$

$F = \{Q_0\}$

- 1101 \rightarrow ditolak, karena berakhir di Q_3 (bukan final state)
- 0101 \rightarrow diterima, karena berakhir di Q_0 (final state)
- 1001 \rightarrow diterima, karena berakhir di Q_0 (final state)
- 1110 \rightarrow ditolak, karena berakhir di Q_3 (bukan final state)

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• 0001 \rightarrow ditolak, karena berakhir di Q_3 (bukan final state)