L-16 Construction of Moore machine-1

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

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

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
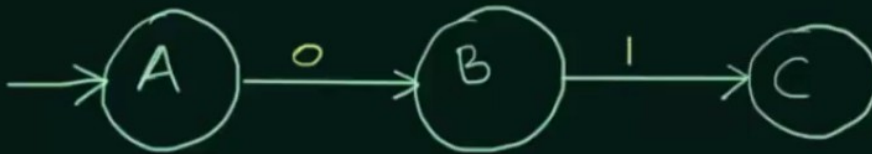
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
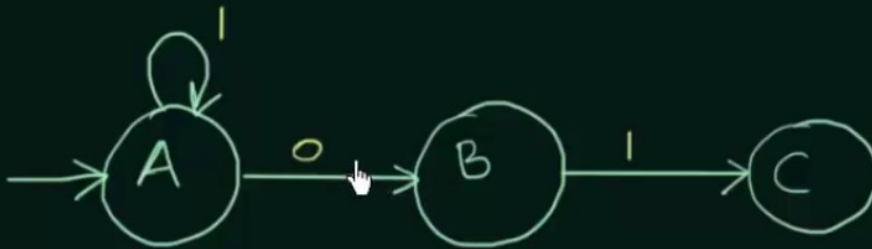
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
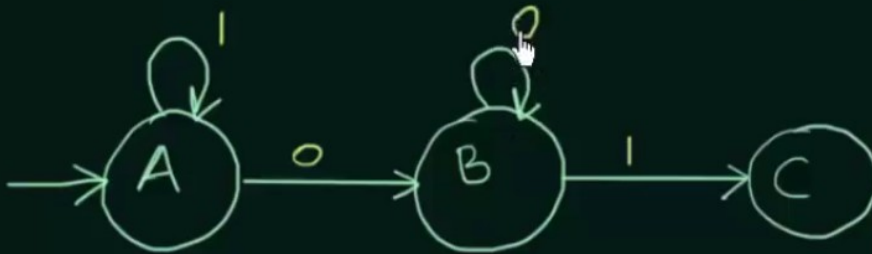
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
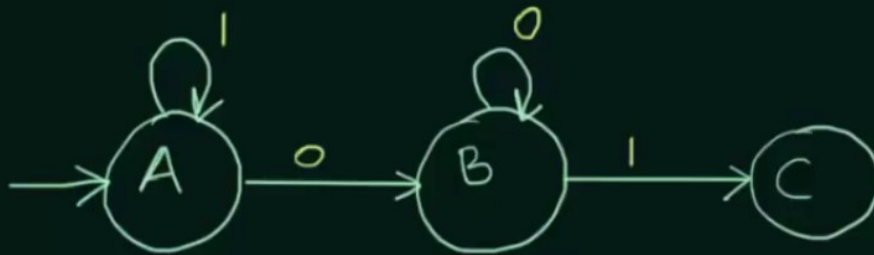
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0, 1\}$$
$$\Delta = \{a, b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

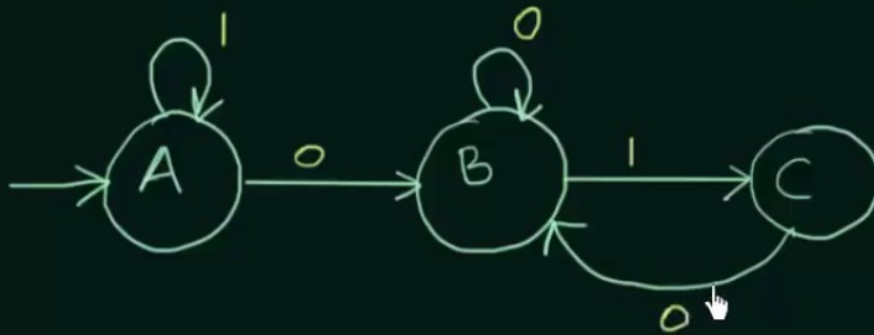# Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

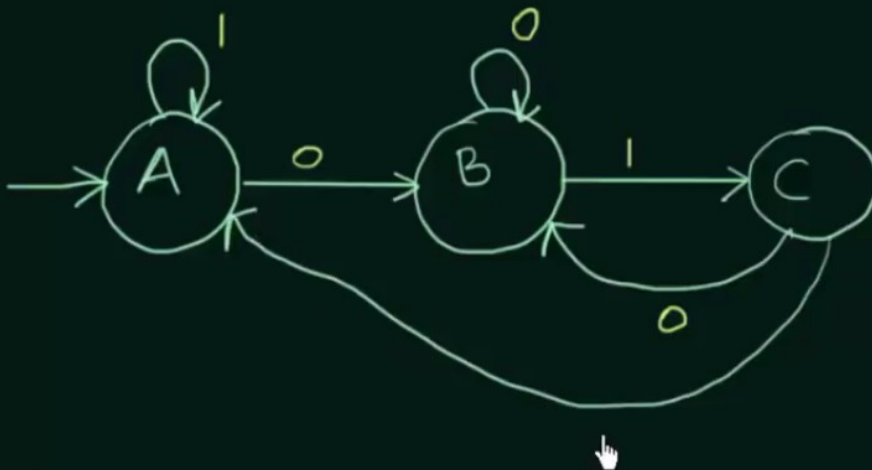

0 1 0

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

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

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

0 1 0 1

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
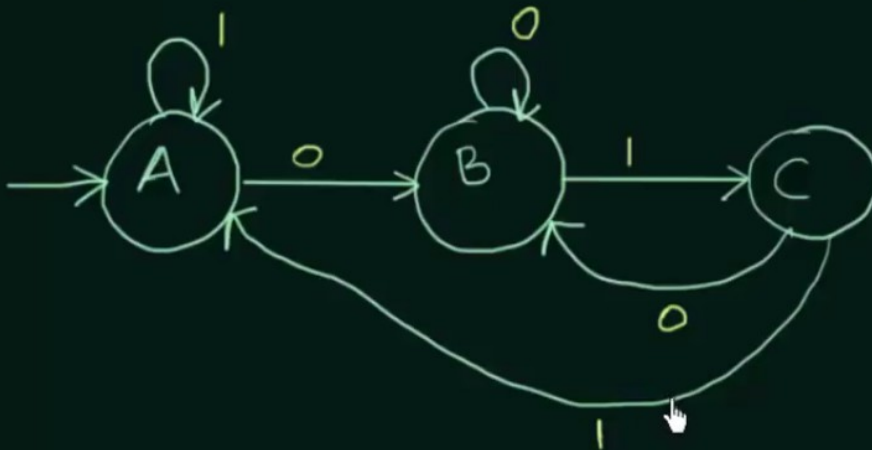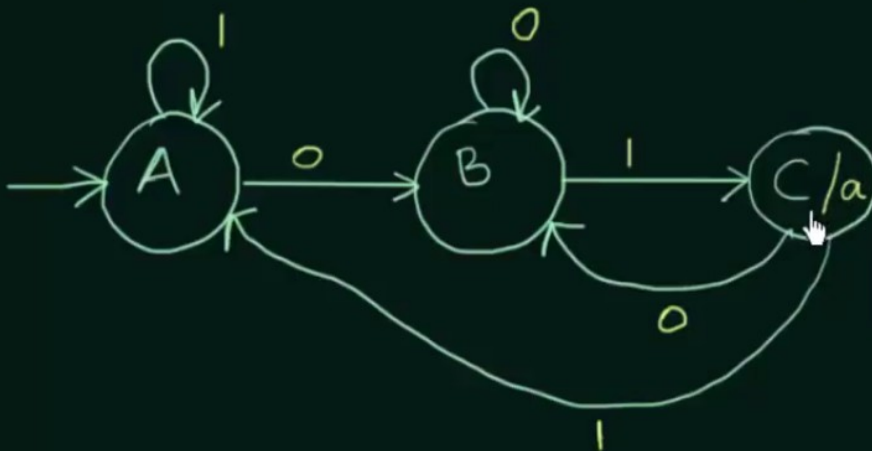
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

$\overset{\frown}{0}\ 1\ \underline{0\ 1}$

$\underline{0\ 1}\ 1\ \underline{0\ 1}$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
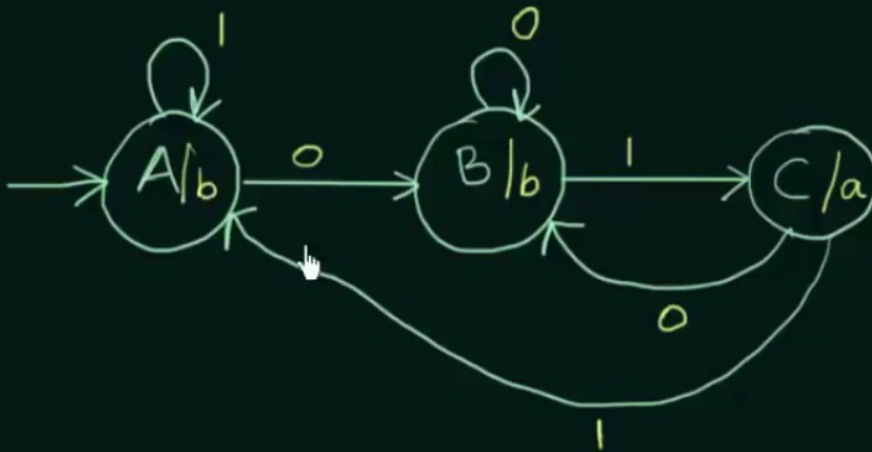
$$\Sigma = \{0, 1\}$$
$$\Delta = \{a, b\}$$

$\underset{\quad}{0\,1}\,\underline{0\,1}$

$0\,1\,\underline{1}\,\underline{0\,1}$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
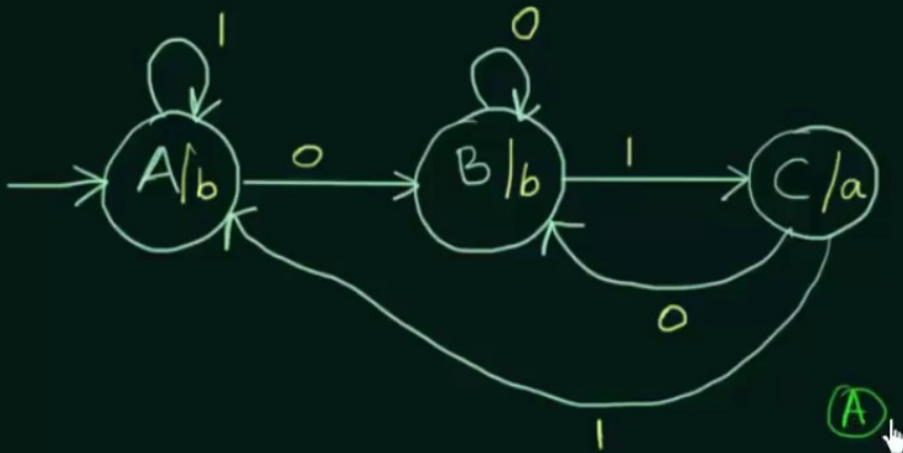
$$\Sigma = \{0,1\}$$
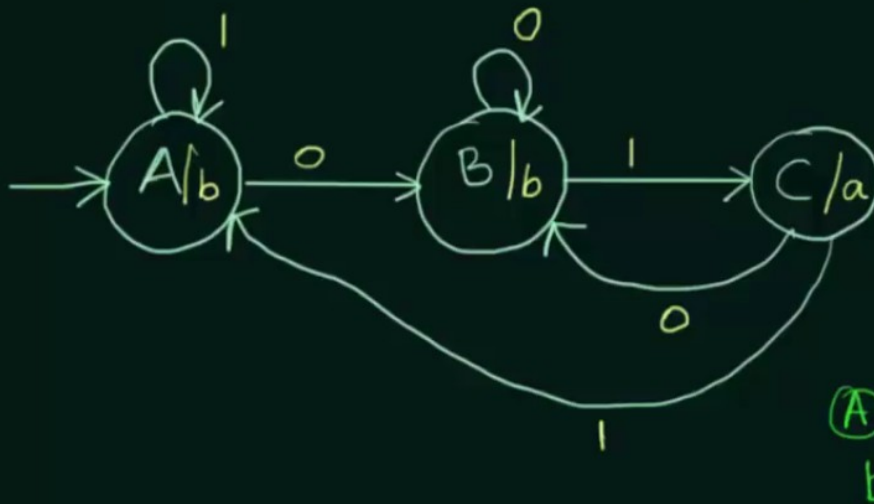$$\Delta = \{a,b\}$$

01 01

011 01

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

$$0 1 \underline{0 1}$$

$$0 1 1 \underline{0 1}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
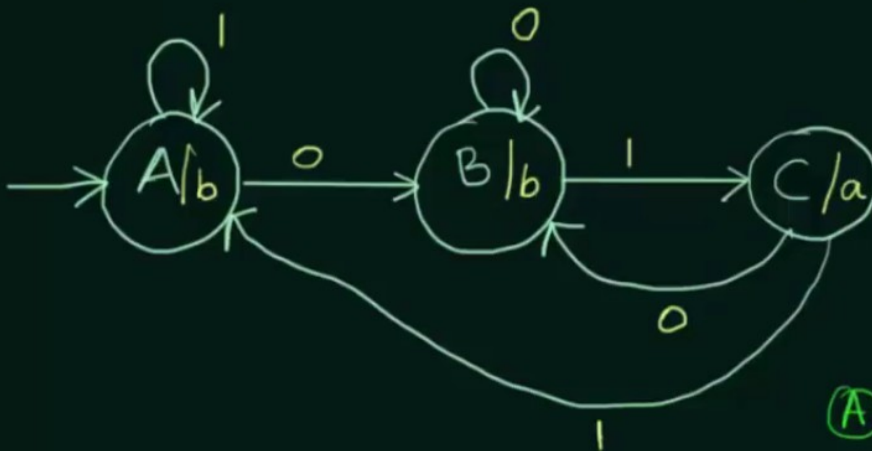$$\Delta = \{a,b\}$$

01 01

011 01

0 1 1 0

Ⓐ

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
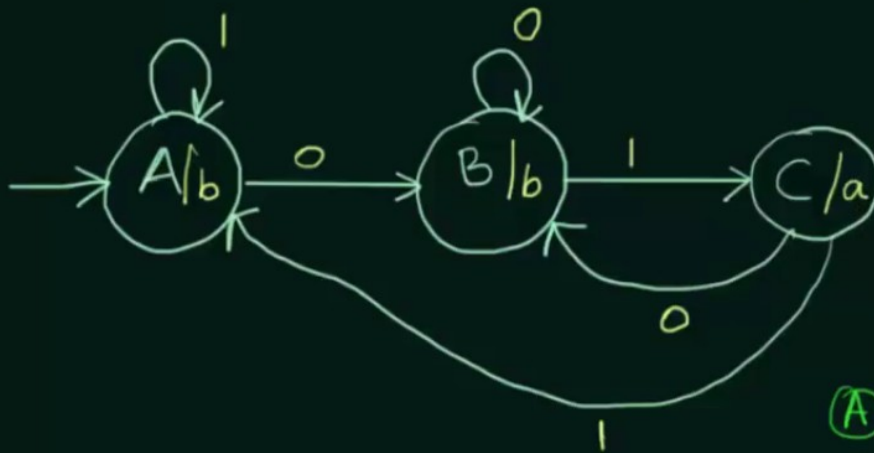
$$\Sigma = \{0, 1\}$$
$$\Delta = \{a, b\}$$

0 1 0 1

0 1 1 0 1

0 1 1 0

(A)

b

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
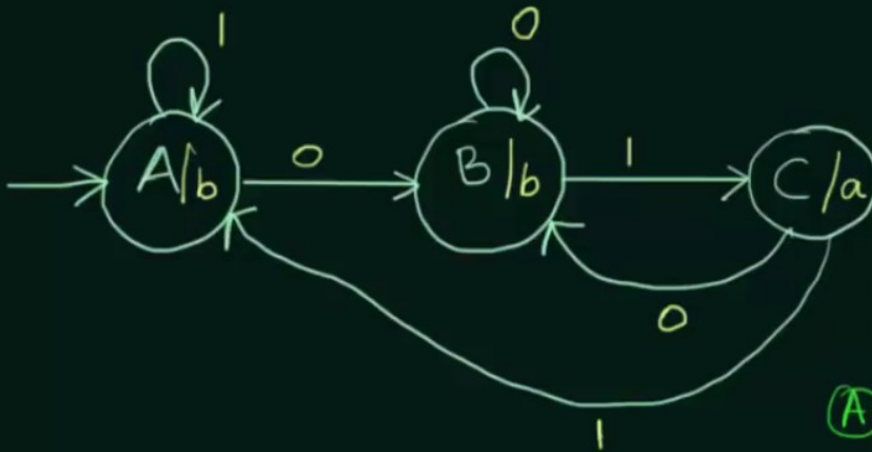
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

01 01

011 01

0 1 1 0

(A) (B)
b b

Construction of Moore Machine

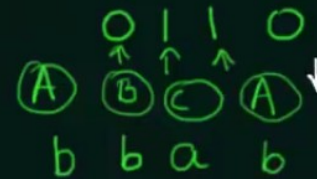Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

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

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

01 01

0101

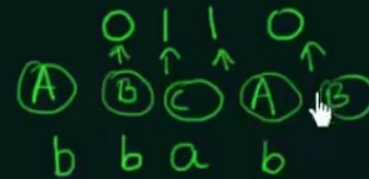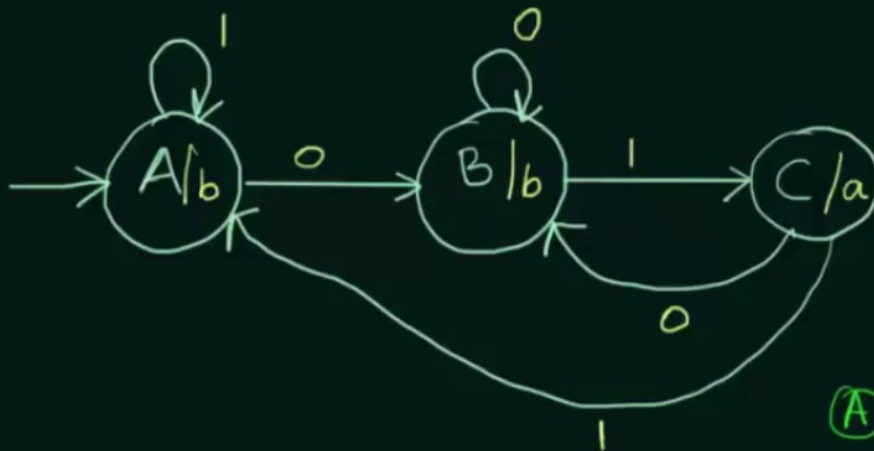0 1 1 0
↑ ↑
A B C

b b a

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

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

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

01 01

0110 1

0 1 1 0

A B C A

b b a b

Construction of Moore Machine
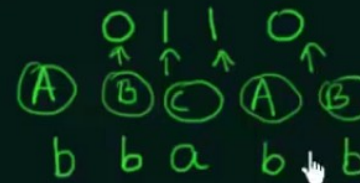
Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

$0 1 \underline{01}$

$011\underline{01}$

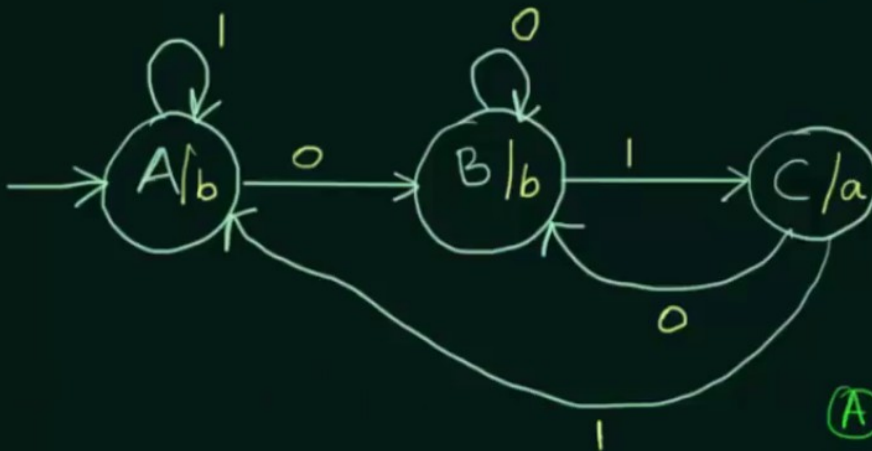$$0 \quad 1 \quad 1 \quad 0$$

(A) (B)(C) (A) (B)

b   b a   b
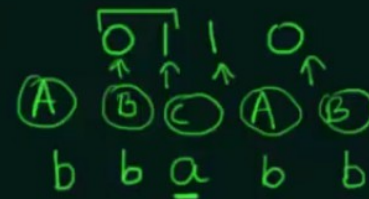
Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0, 1\}$$
$$\Delta = \{a, b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
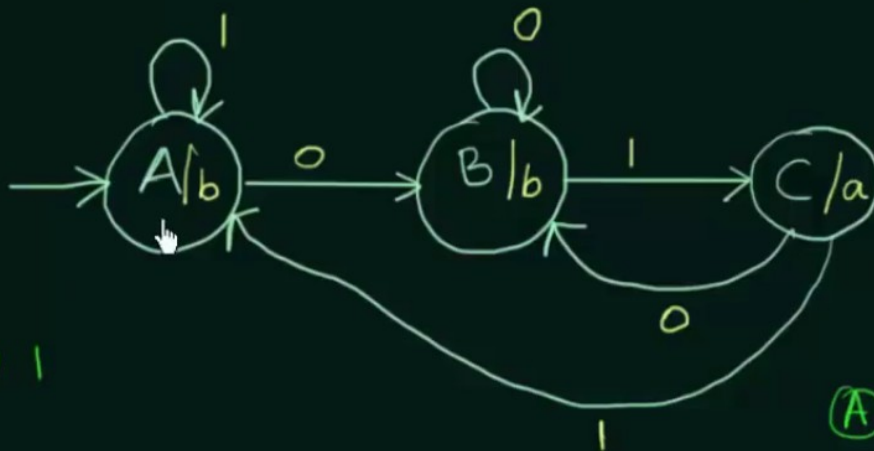
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

01 0̲1̲

01̲01̲

0̅1̅ 1 0
↑ ↑ ↑ ↑
(A) (B)(C) (A) (B)
b b a̲ b b

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
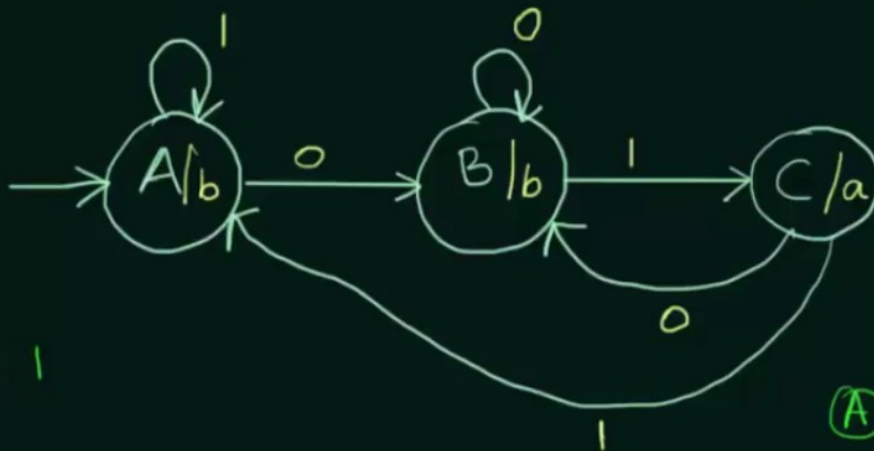
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

01 01

01 1 01

$\overline{0\ 1}\ 1\ 0$

(A) (B) (C) (A) (B)

b b a b b

01 0 1

(A)

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0, 1\}$$
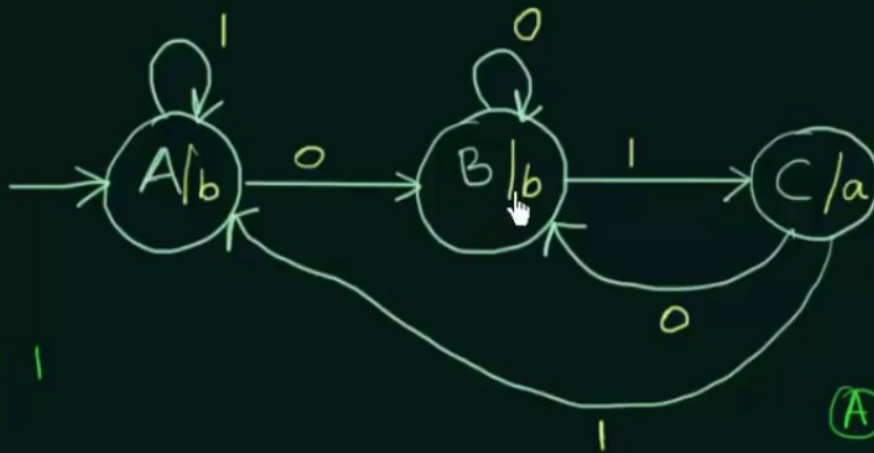$$\Delta = \{a, b\}$$

01 01

01101

01 1 0

(A) (B)(C) (A) (B)
b b a b b

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
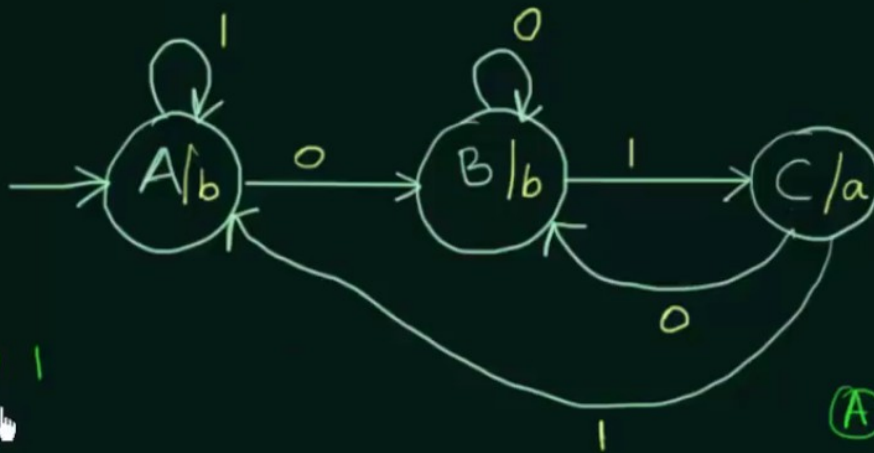
$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

$01\underline{01}$

$01\underline{1}\underline{01}$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string
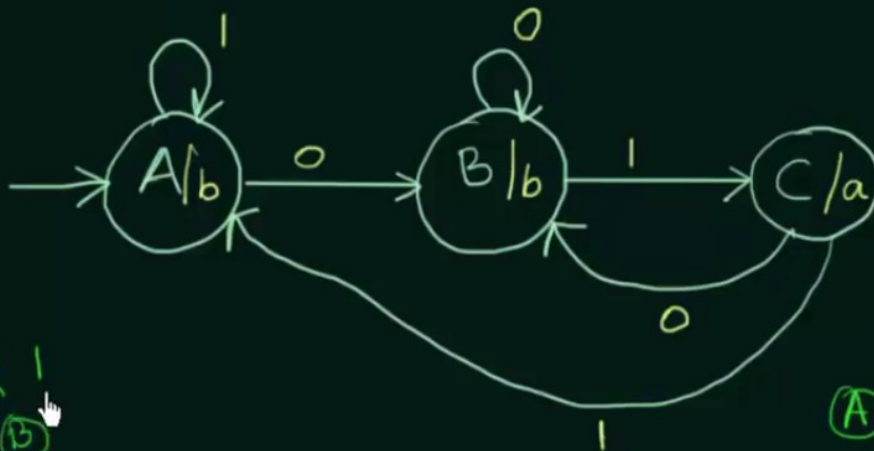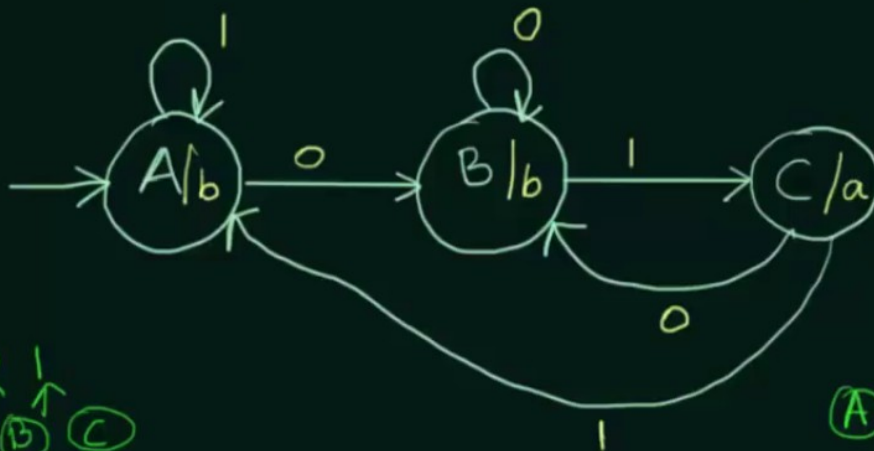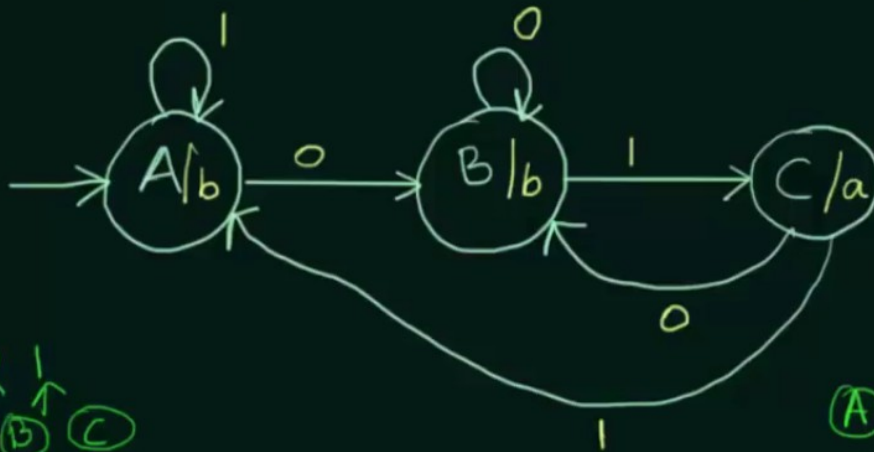
$$\Sigma = \{0, 1\}$$
$$\Delta = \{a, b\}$$

0101

01101

01 10

01 1 0

A B C A B

b b a b b

0 1 0 1

A B C B

b b a b

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
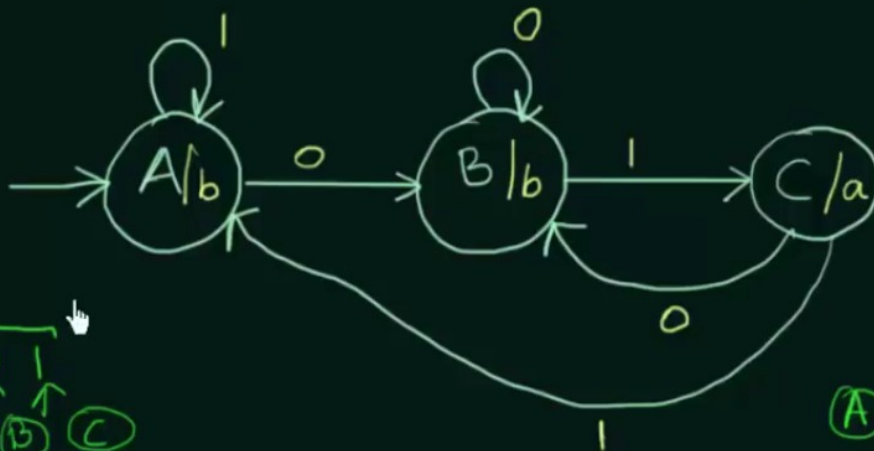$$\Delta = \{a,b\}$$

01 01

01101

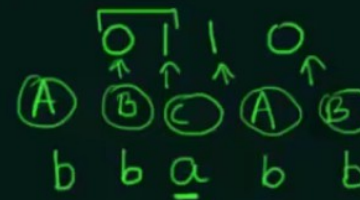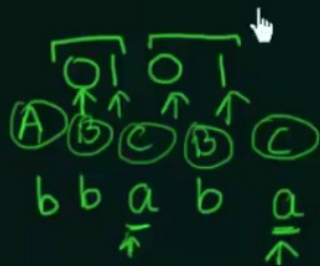0110

A B C A B
b b a b b

Construction of Moore Machine

Construct a Moore Machine that prints 'a' whenever the sequence '01' is encountered in any input binary string

$$\Sigma = \{0,1\}$$
$$\Delta = \{a,b\}$$

01 01

01 01

A B C B C
b b a b a

A B C A B
b b a b b

- **Questions????**