

Construct a **multi-tape TM** that accepts the language:

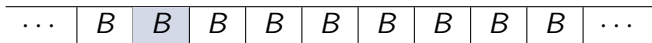
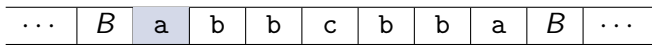
$$L(M) = \{wcw^R \mid w \in \{a,b\}^*\}$$

...	B	a	b	b	c	b	b	a	B	...
...	B	B	B	B	B	B	B	B	B	...

- 1: Find the first c in the input
- 2: Check if left and right parts of c are reverse of each other

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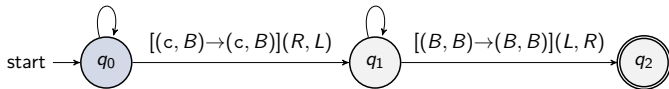


$[(a, B) \rightarrow (a, a)](R, R)$

$[(a, a) \rightarrow (a, a)](R, L)$

$[(b, B) \rightarrow (b, b)](R, R)$

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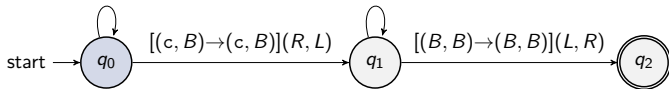
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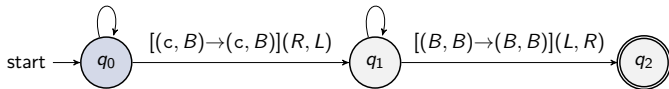
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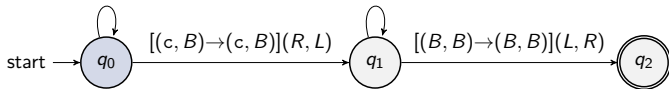
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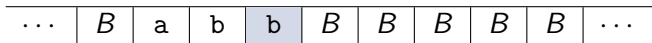
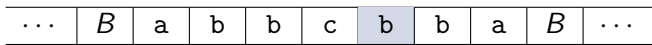
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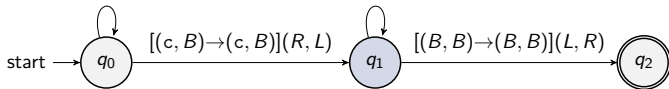


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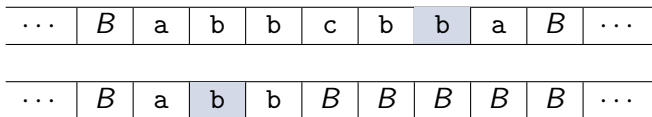
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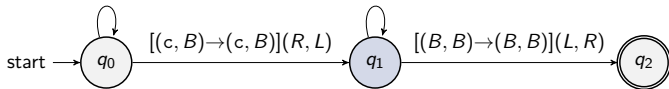


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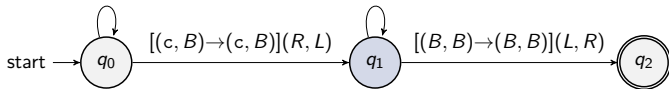
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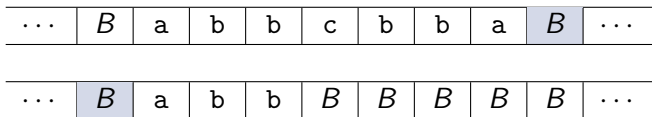
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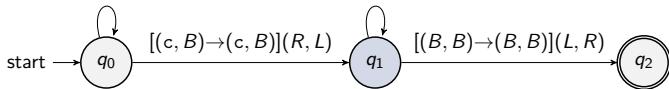


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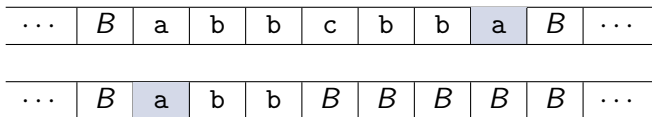
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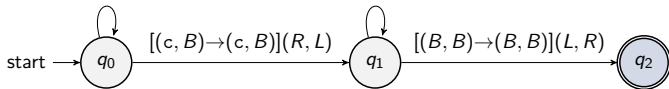


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Accept!