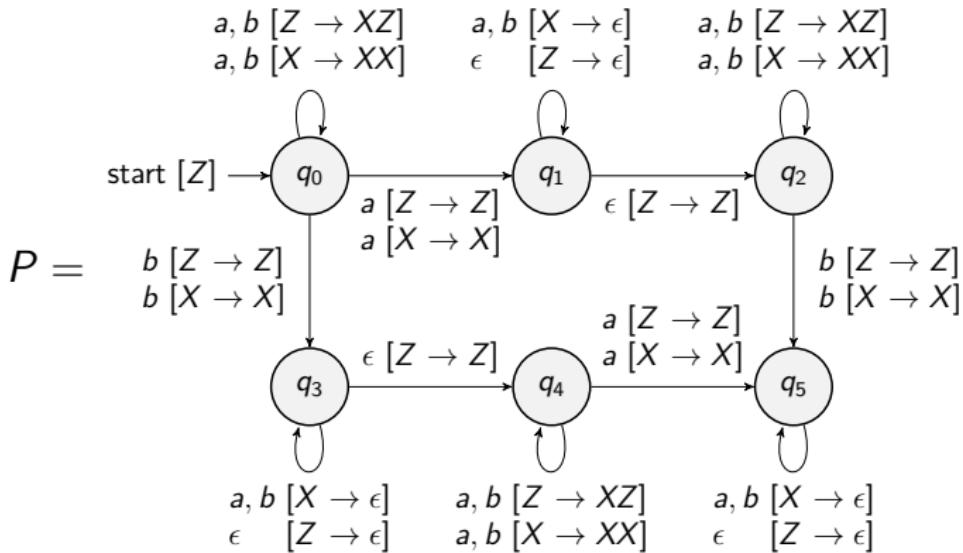


Construct a **PDA** that accepts the language by **empty stacks**:

$$L_E(P) = \{x \in \{a, b\}^* \mid x \text{ is not of the form } ww\}$$

Word $w = a \ b \ a \ a \ b \ a \ a \ a \ b$

Stack $\alpha = \boxed{\quad | \quad | \quad | \quad | \quad | \quad | \quad Z}$

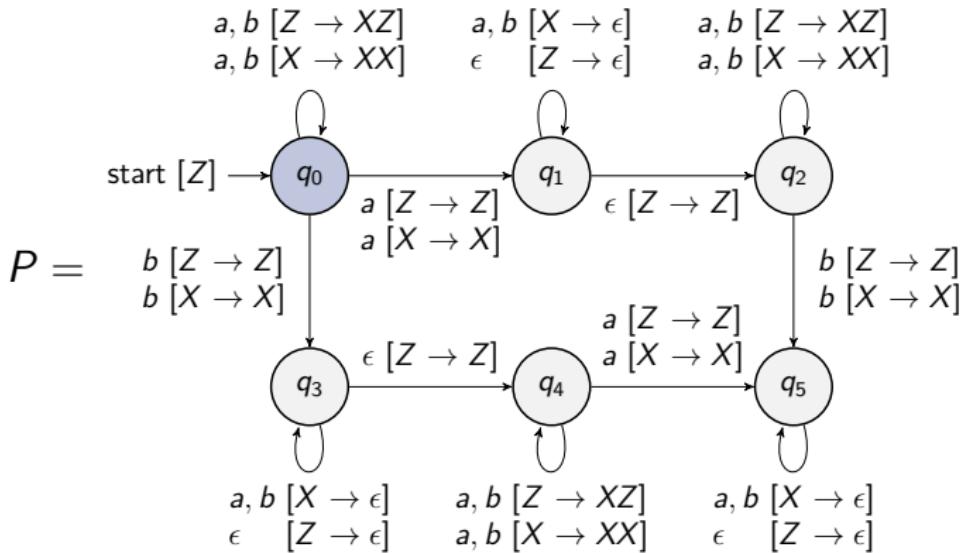


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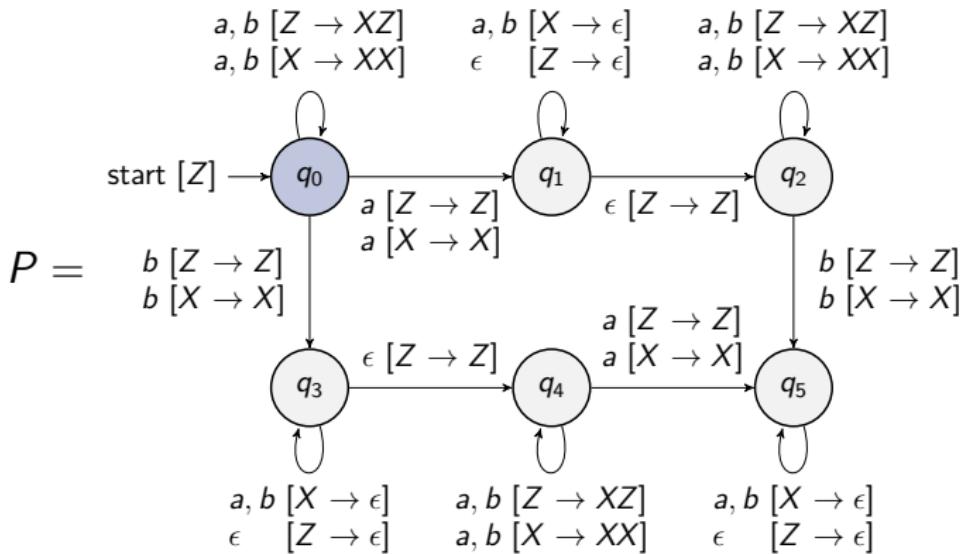


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Stack $\alpha = \boxed{\quad \quad \quad \quad \quad \quad X \quad Z}$

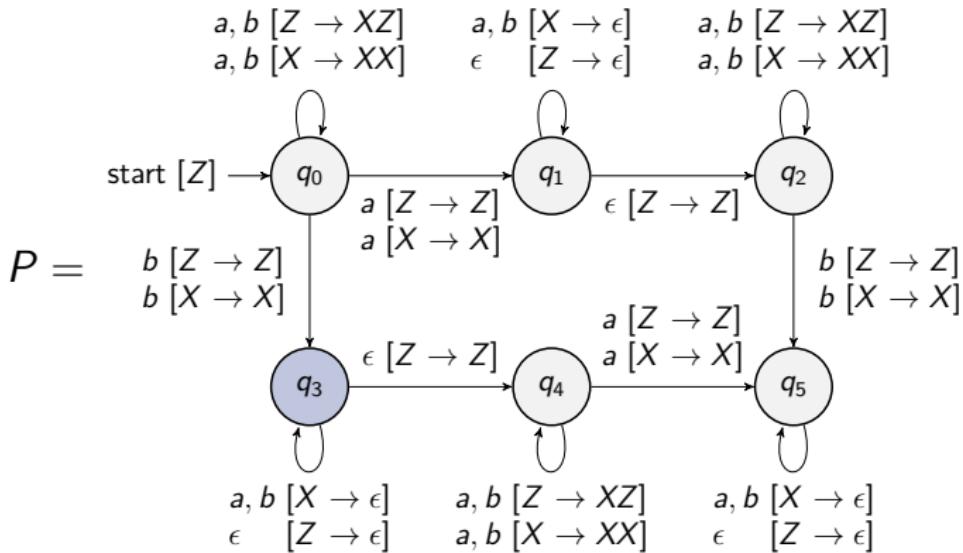


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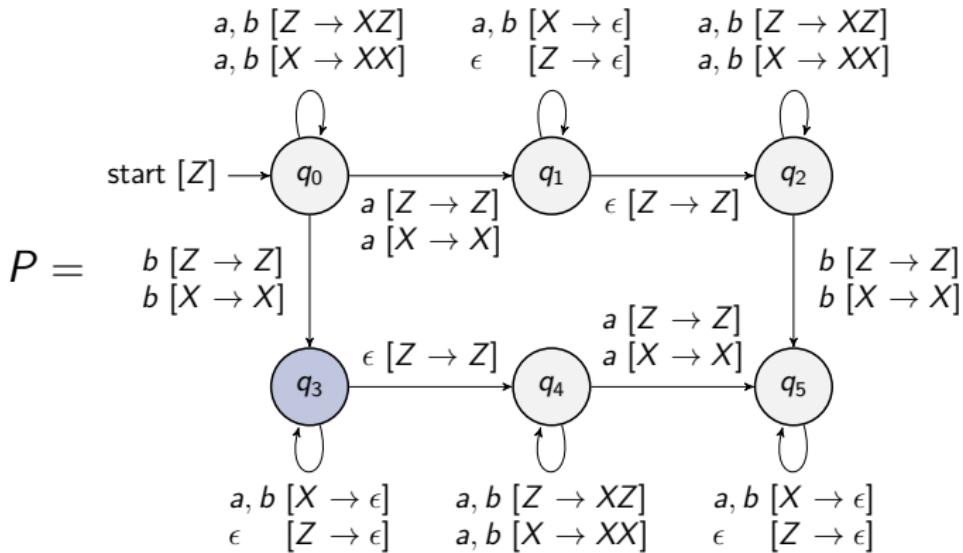


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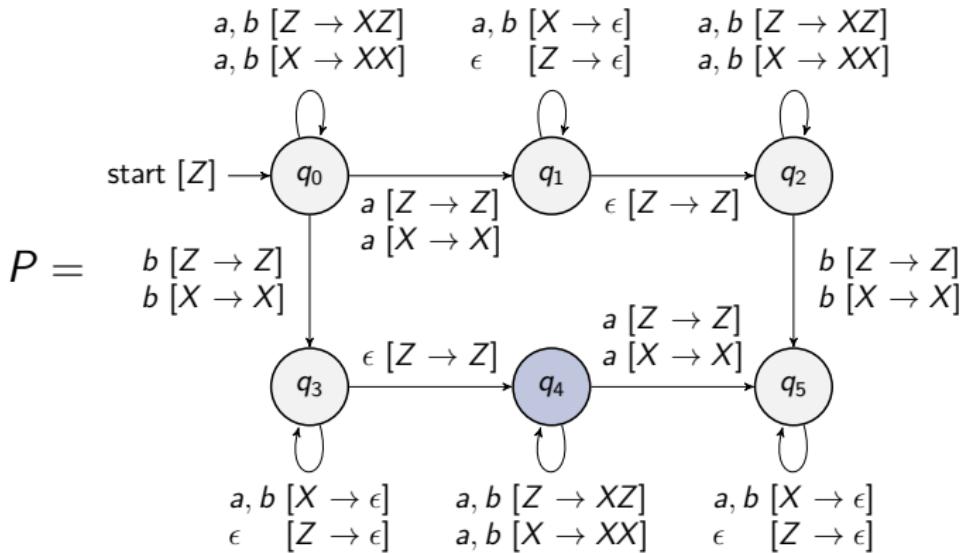


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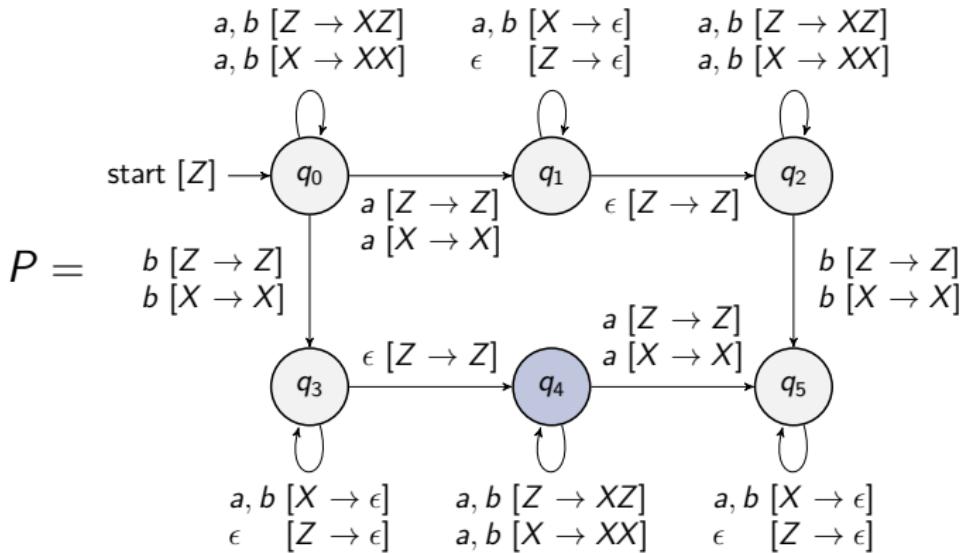


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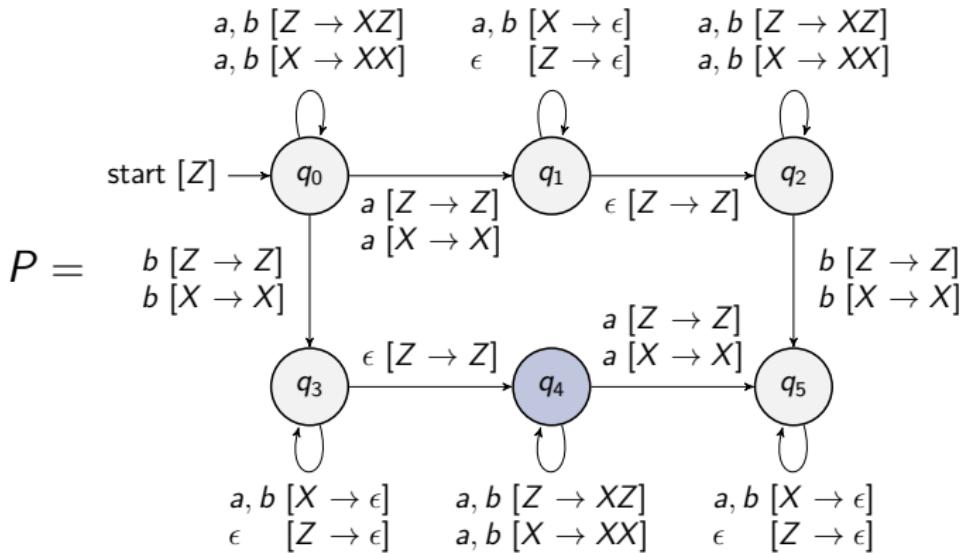


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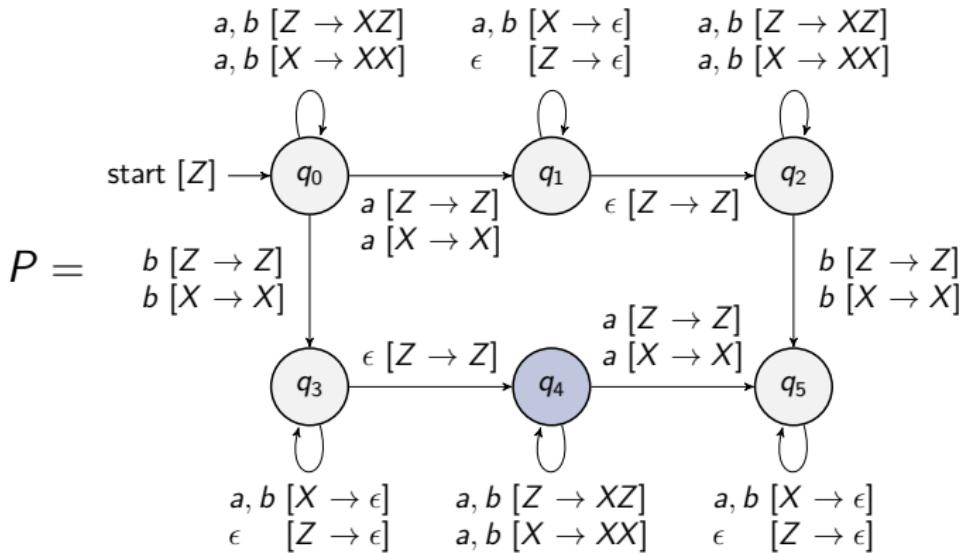


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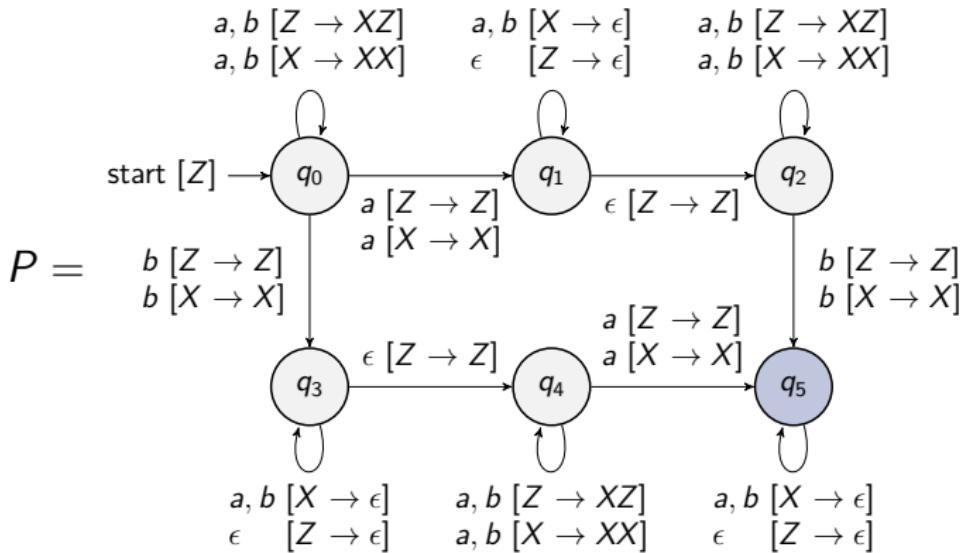


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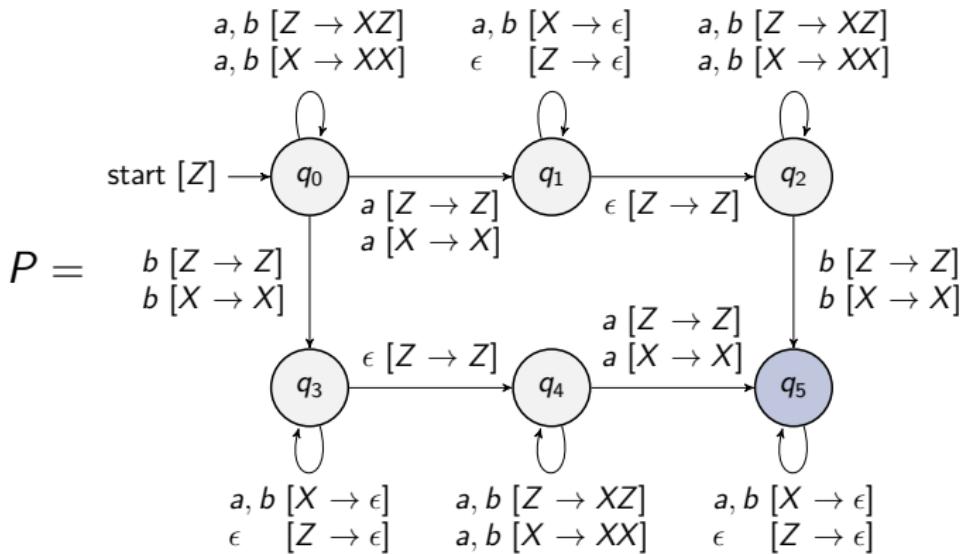


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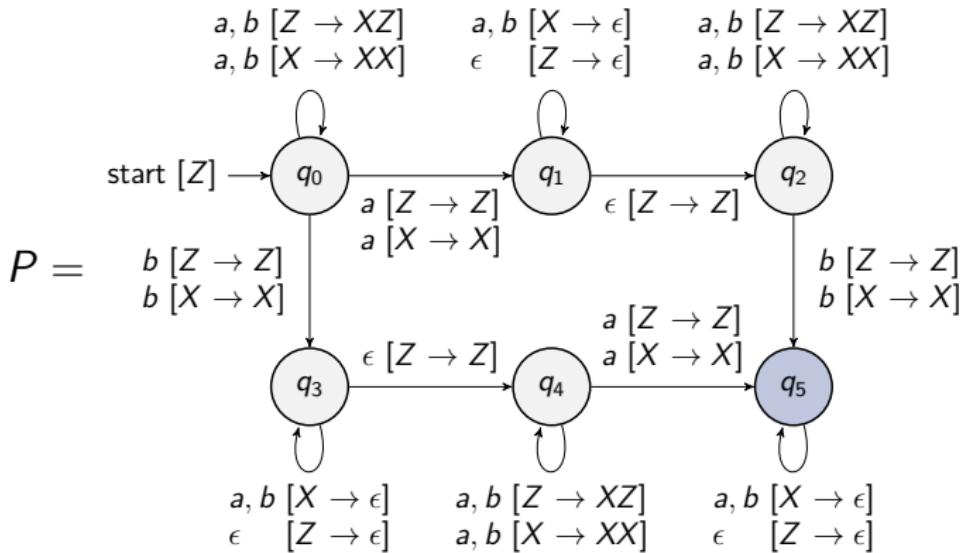


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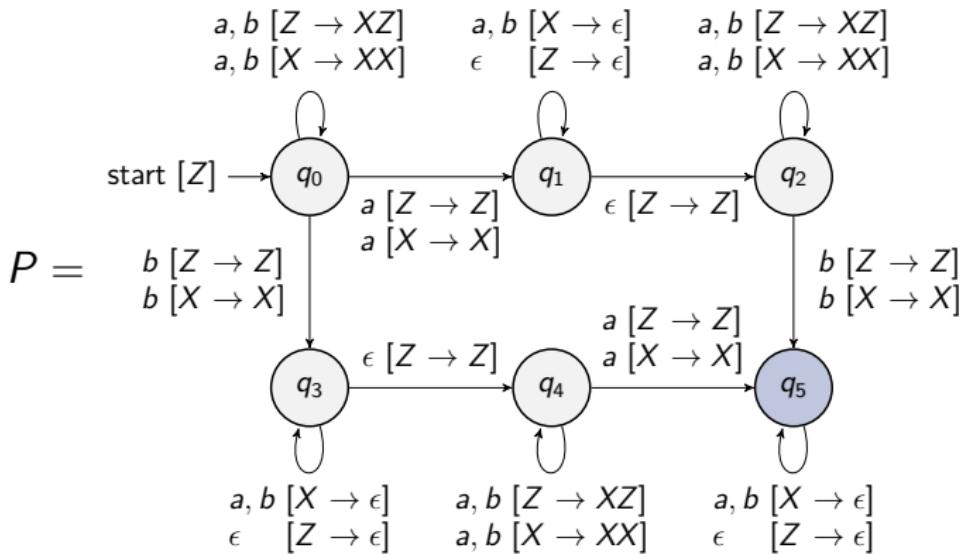


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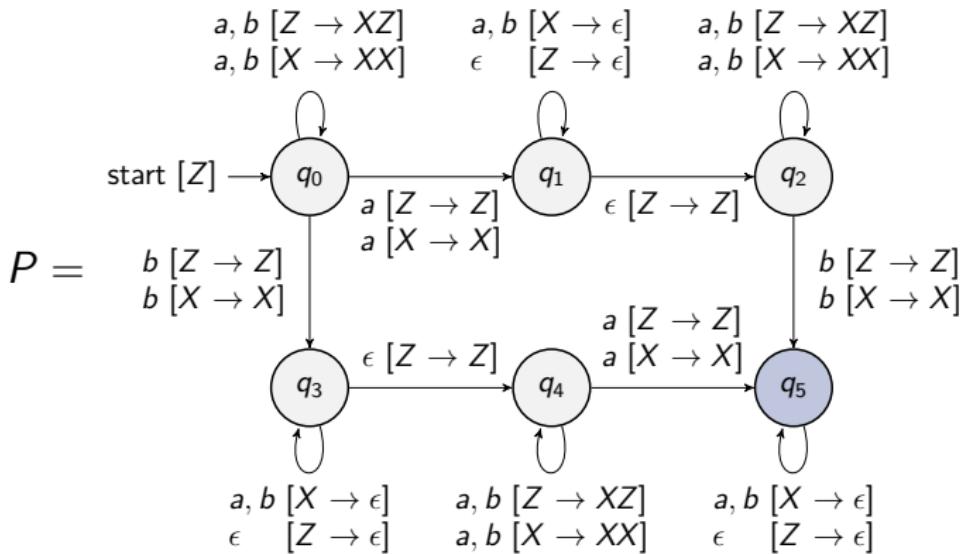


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$abaabaaaab \in L_E(P)$