

Software Specifications

Convert Regex to State Diagram-Examples

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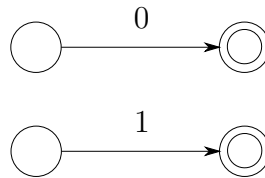
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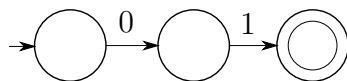
Example

Given $(10+1)^*0+01$ find the corresponding state diagram using the algorithm from lesson 12.

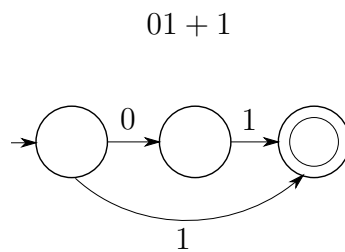
the first step we must take is to make a state diagram for 0 and 1



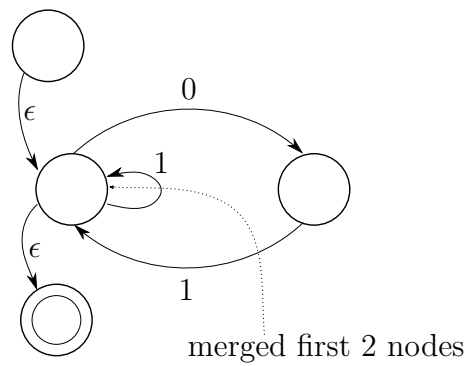
We must then concatenate these diagrams so that we can represent 01



And we continue creating diagrams until we can represent the given Regex

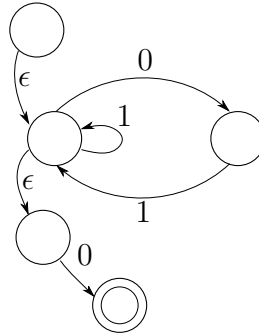


Now for $(01+1)^*$

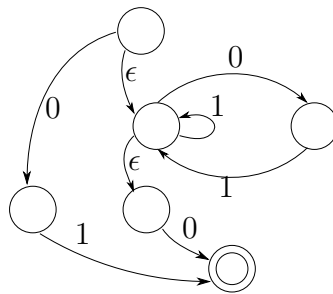


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And $(01+1)^*0$



Finally, $(01+1)^*0+01$



And thus, we have converted the Regex $(01 + 1) * 0 + 01$ to its corresponding ϵ -transition NFA