Theory Of Automata

Home Task # 2

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Regular expression

1) All words that contain exactly three b's in total:

a*ba*ba*ba*

2) All words that contain exactly two b's or three b's in total not more:

a*ba*ba*ba* + a*ba*ba*

3) All string that ends in double letter:

(a + b)* (aa + bb)

4) All strings which don't contain sub-string bbb:

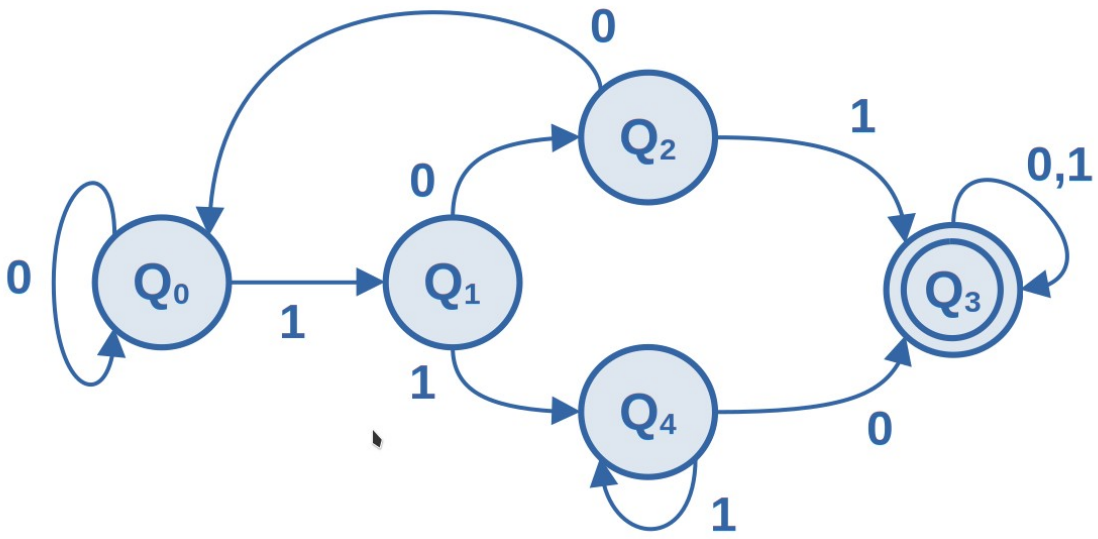
(a + ab)*(b + λ)

5) All strings who start and end with different symbol:

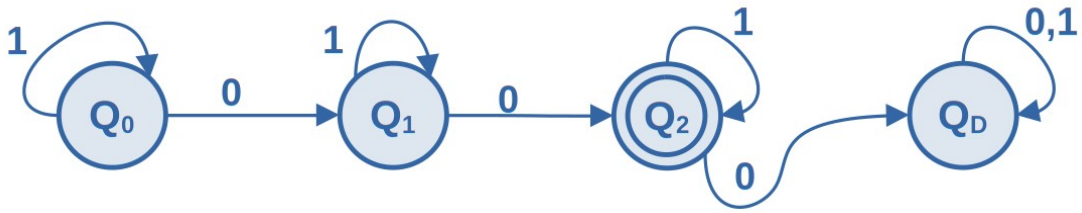
a(a + b)*b + b(a + b)*a

Finite Automata

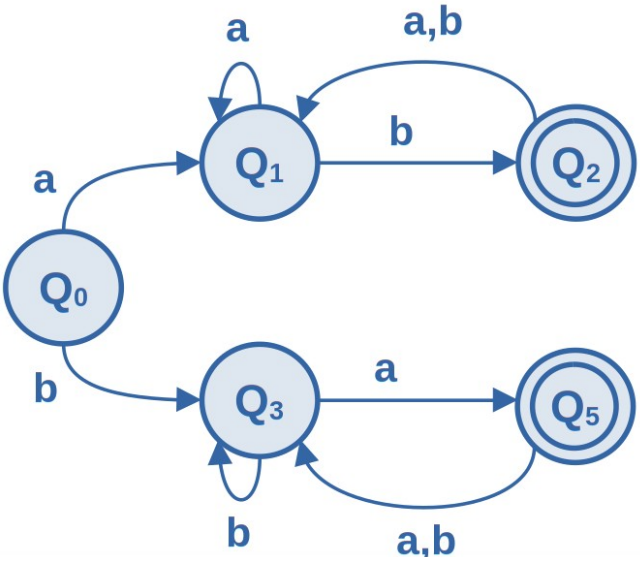
1) All strings having 101 or 110 as a sub-string:



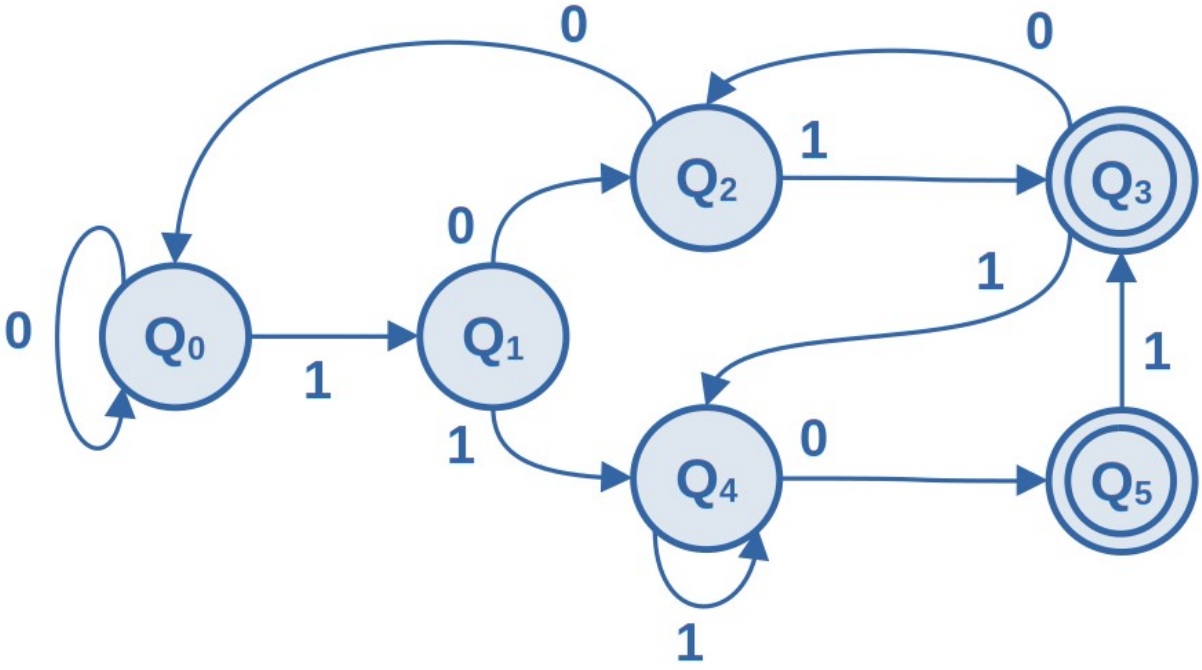
2) All strings having exactly two zero's anywhere:



3) All strings who start and end with different symbol:



4) All strings ending in 101 or 110:



5) For language L={ab^5 w b^4 | w belongs to (a,b) }