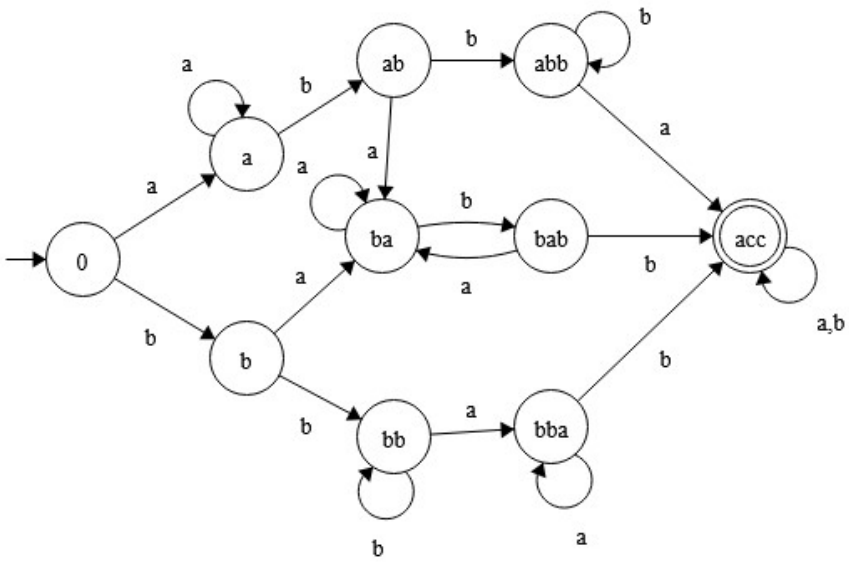
Exercise 29: Minimum DFA for $\{w \in \{a,b\}^* \mid \forall y : ((|y| = 2 \wedge |y|_b > 0) \Rightarrow |w|_y > 0)\}$

Describe the minimum DFA that recognizes the words over $\{a, b\}$ that contain all possible subword of length 2 with at least one b. Note that there are only three of such subwords (ab, ba, bb), but they might be overlapped.

Authors: Guillem Godoy / *Documentation:*

Date: 2025-02-27 17:43:45
Verdict: accepted

Correct automaton.



Fullscreen
Switch to text editor

Usage:

- **Add a state:** double-click on background.
- **Add a transition:** shift-drag from a state to a state.
- **Make a starting state:** shift-drag from background to a state.
- **Make an accepting state:** double-click on a state.

Automaton encoded in text:

```
     a   b
0    a   b
a    a   ab
ab   ba  abb
abb  acc abb
acc  acc acc +
b    ba  bb
ba   ba  bab
bab  ba  acc
bb   bba bb
bba  bba acc
```

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