

Consider the following languages for **DFA**, Consider $\Sigma=\{a,b\}$.

A1: $\{w \mid w \text{ has at least two 'a'}\}$

A2: $\{w \mid w \text{ has at most two 'b'}\}$

Now construct a **DFA** which will recognize the language, $A = A1 \cup A2$, using the formal procedure of Closure.

[**Consider the states of the first machine are a_1, a_2, a_3 . And the states of the second machine are b_1, b_2, b_3, b_4]