



3. (**4 pts**) Design a deterministic finite automaton for the language of all strings on  $\{a, b\}$  which have an even number of  $a$ 's, start with an  $a$ , and in which the substring  $bb$  does not occur.

You may give your machine in tabular form, or as a diagram, either using incomplete determinism or not.

Make sure that you indicate your design principles.