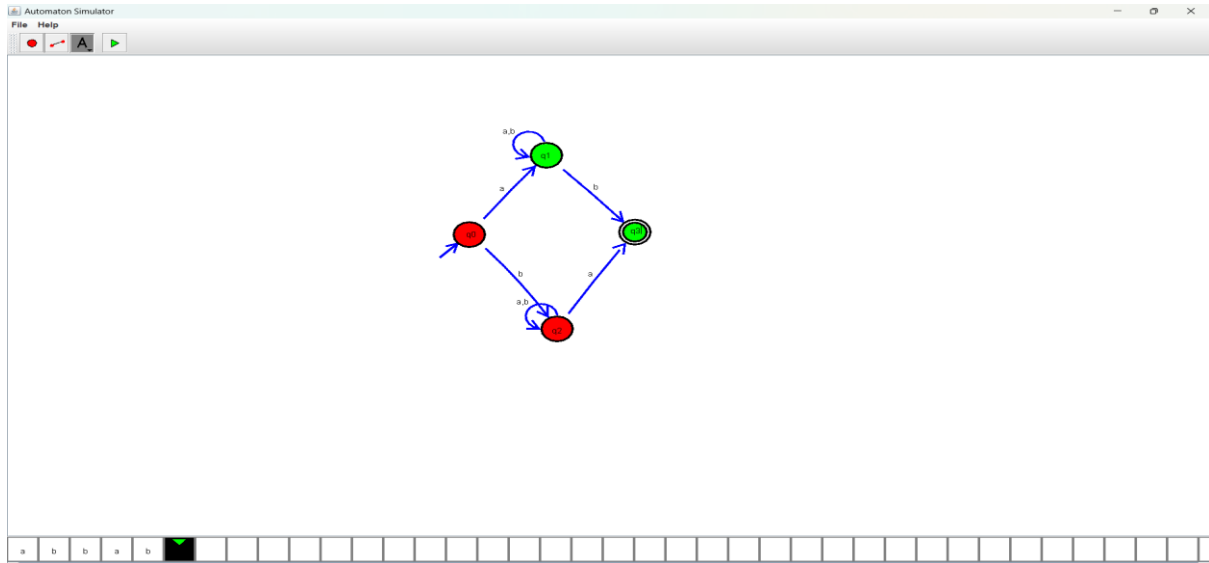


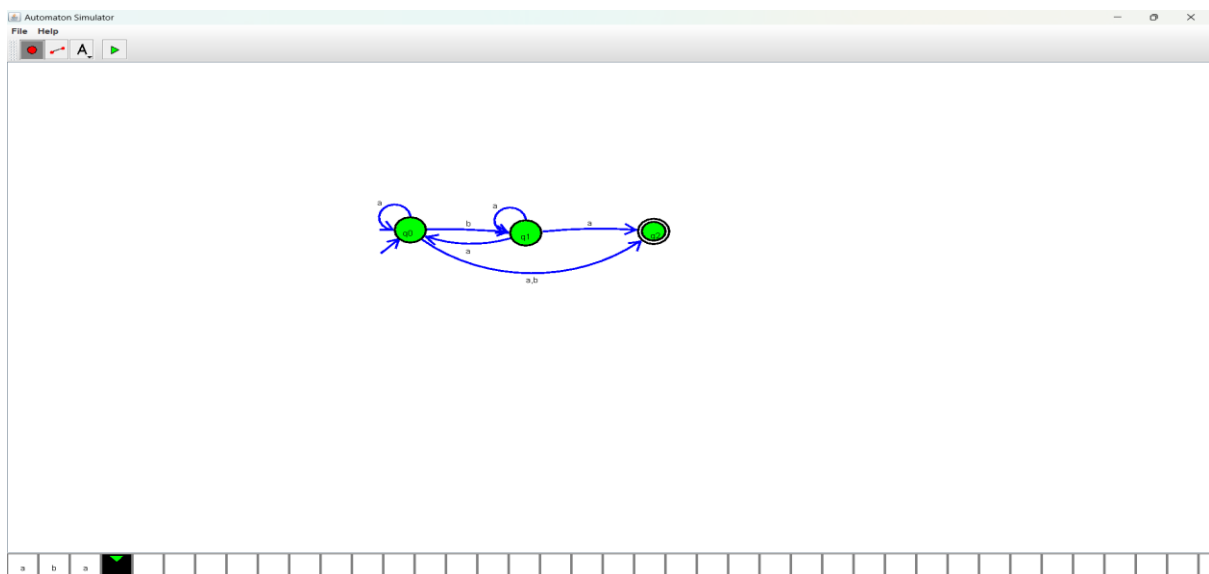
CSA1322 – THEORY OF COMPUTATION

LAB EXPERIMENTS – DAY 2

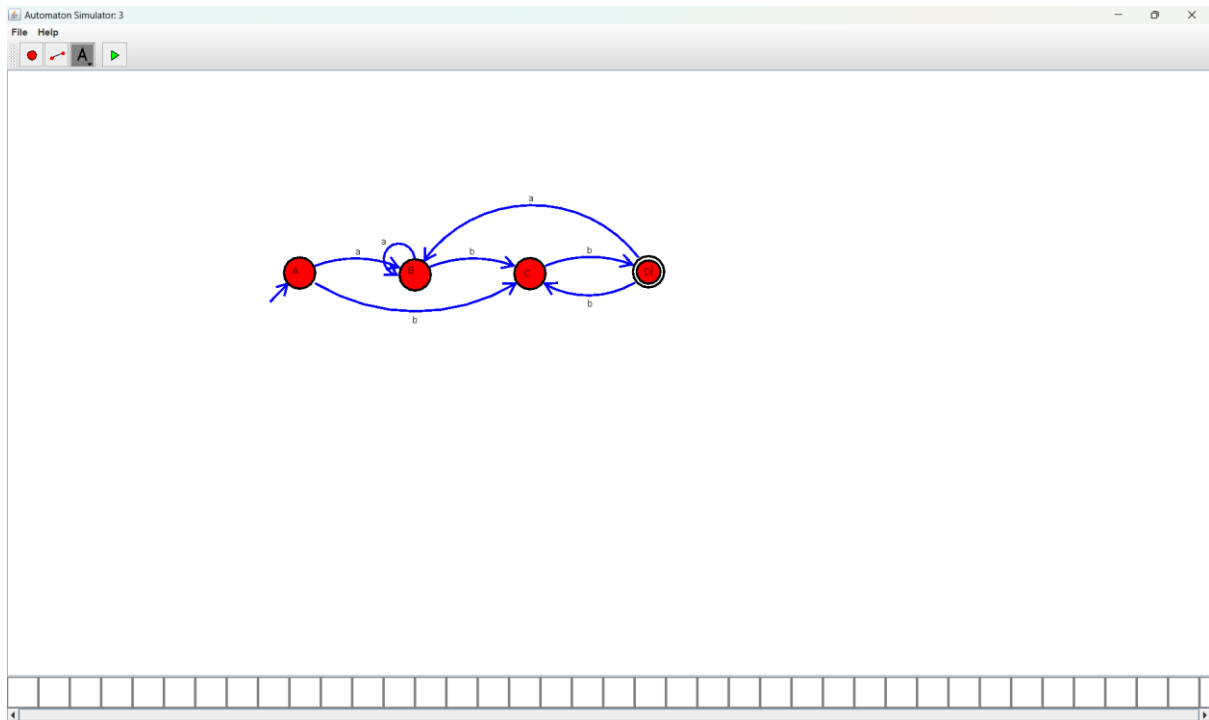
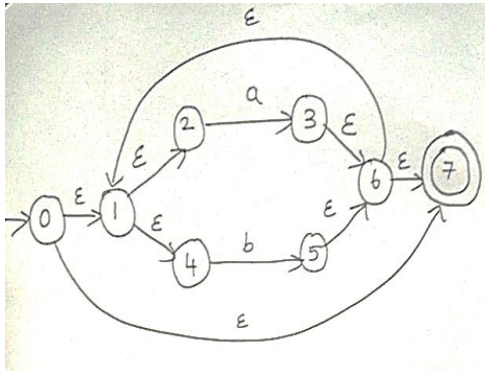
2.3) Construct an NFA for binary strings that start and end with different digits.



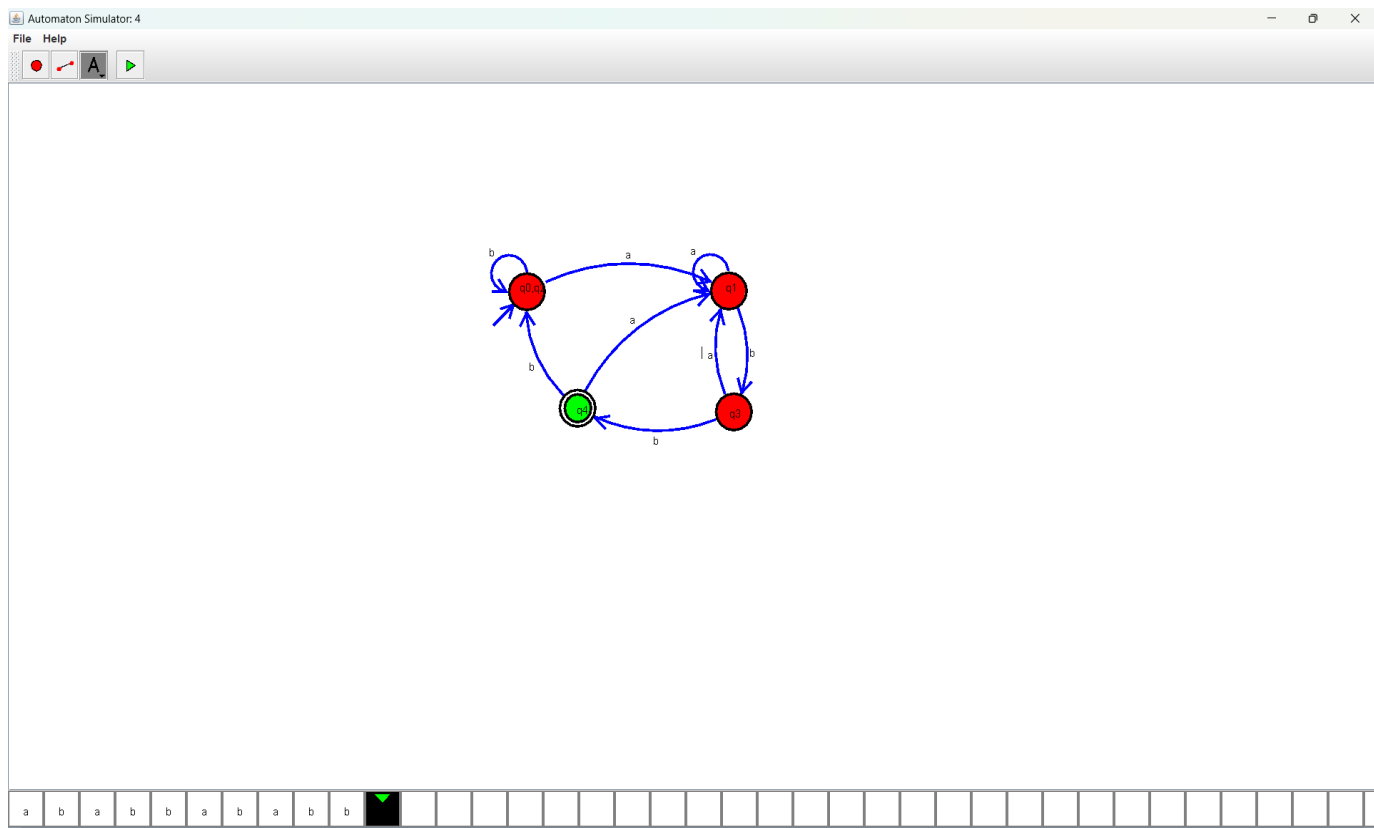
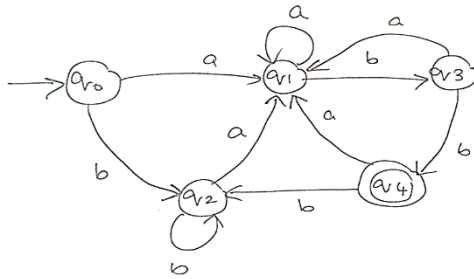
3. Construct an NFA without ϵ -moves equivalent to the NFA with ϵ -moves given



4. Construct a DFA equivalent to the NFA with ϵ -moves given below:

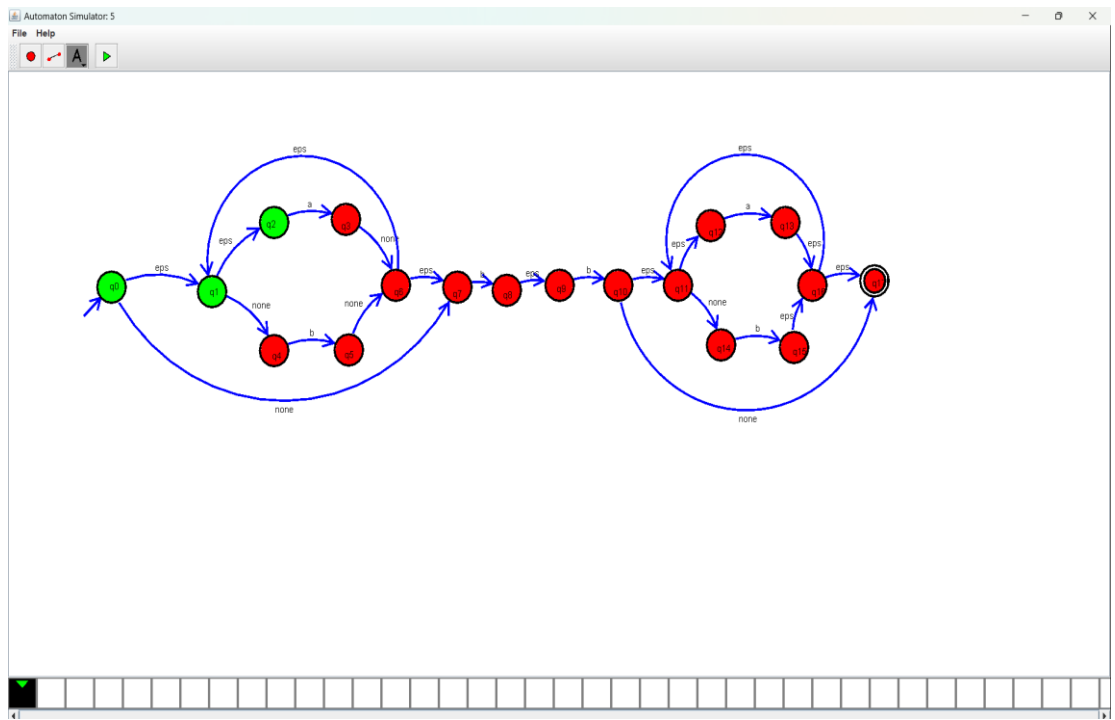


5.Minimize the DFA given below:

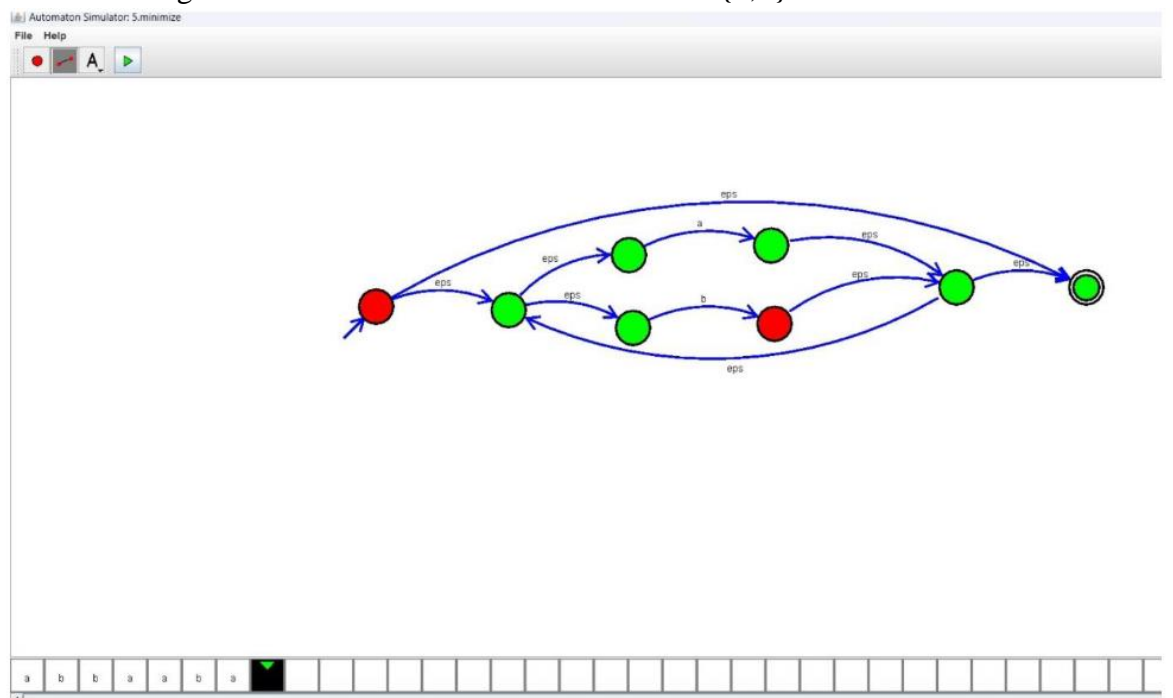


6. Define RE for the following languages:

- i) Set of all strings of a's and b's having bb as a substring

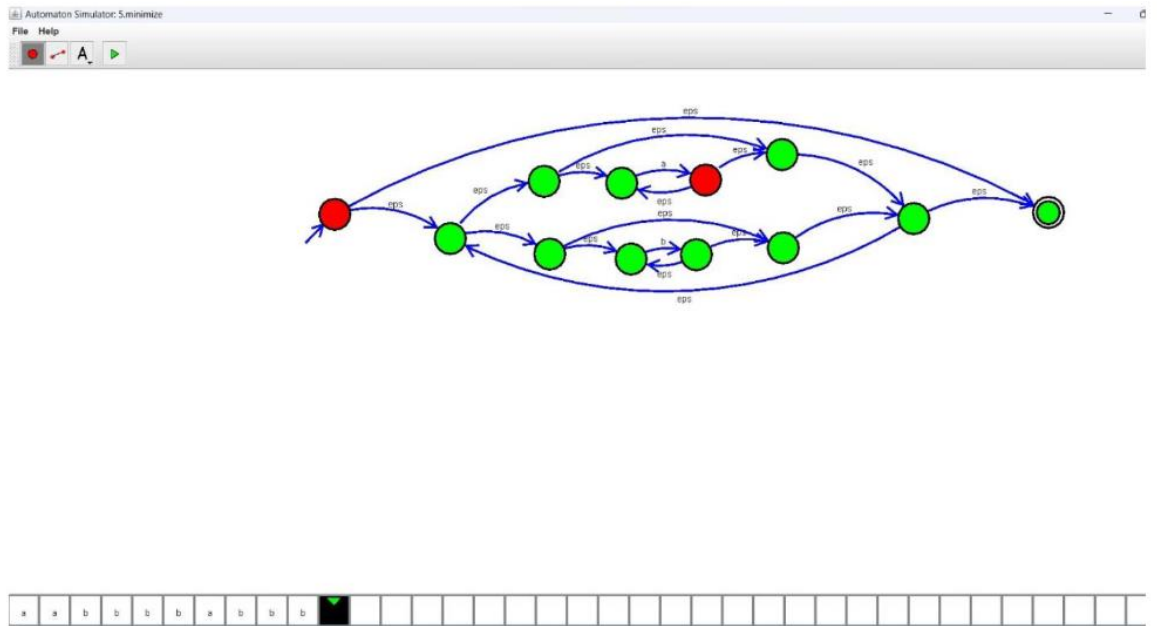


- ii) Set of all strings that start with a and end with b over $\Sigma = \{a, b\}$

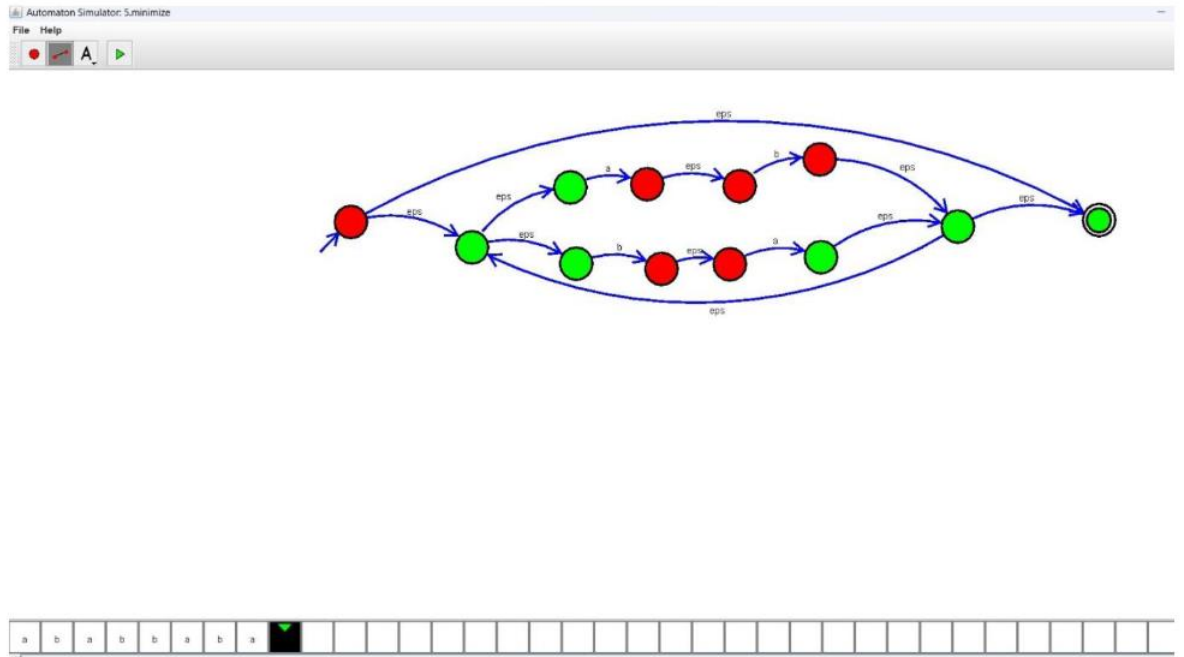


7. Identify the language defined by the r.e:

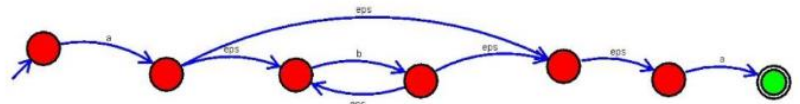
i) $(a^* + b^*)^*$



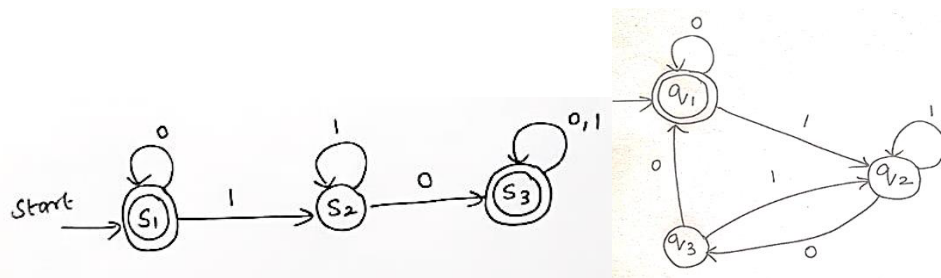
ii) $(01+10)^*$



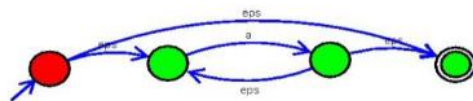
iii) ab^*a



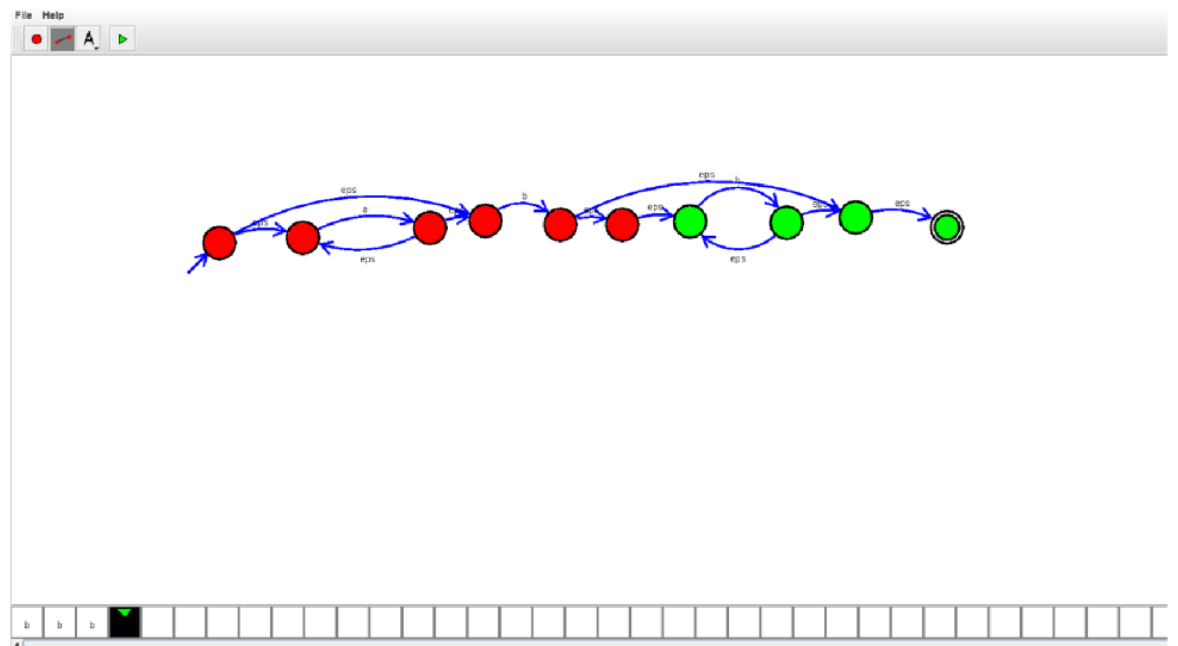
8. Construct r.e. from the DFA given below:



S1: a^*



S2: a^*bb^*



S3: $a^*bb^*a(a+b)^*$

