

Name: Arjun Mijar

- NFA, set of all string containing abab as a substring over alphabet= $\{a,b\}$

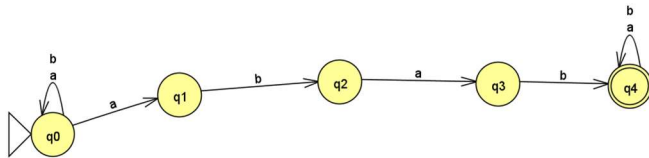


Table Text Size		
Input		Result
abaa		Reject
aabba		Reject
aababab		Accept
abababb		Accept
abab		Accept

Traceback		
q0	abababb	↓
q1	abababb	↓
q2	abababb	↓
q3	abababb	↓
q4	abababb	↓
q4	abababb	↓
q4	abababb	↓
q4	abababb	↓
q4	abababb	↓

- ϵ -NFA, starting or ending with aa or bb over alphabet= $\{a,b\}$

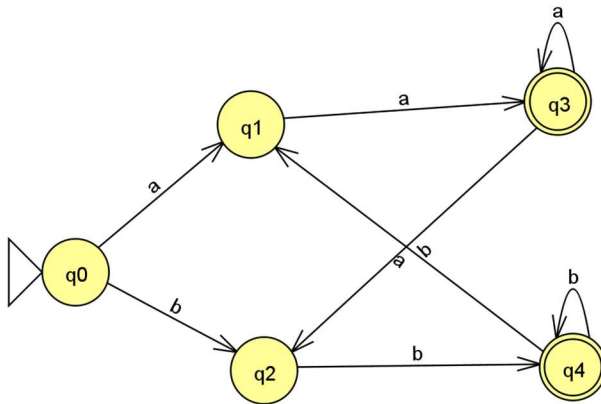
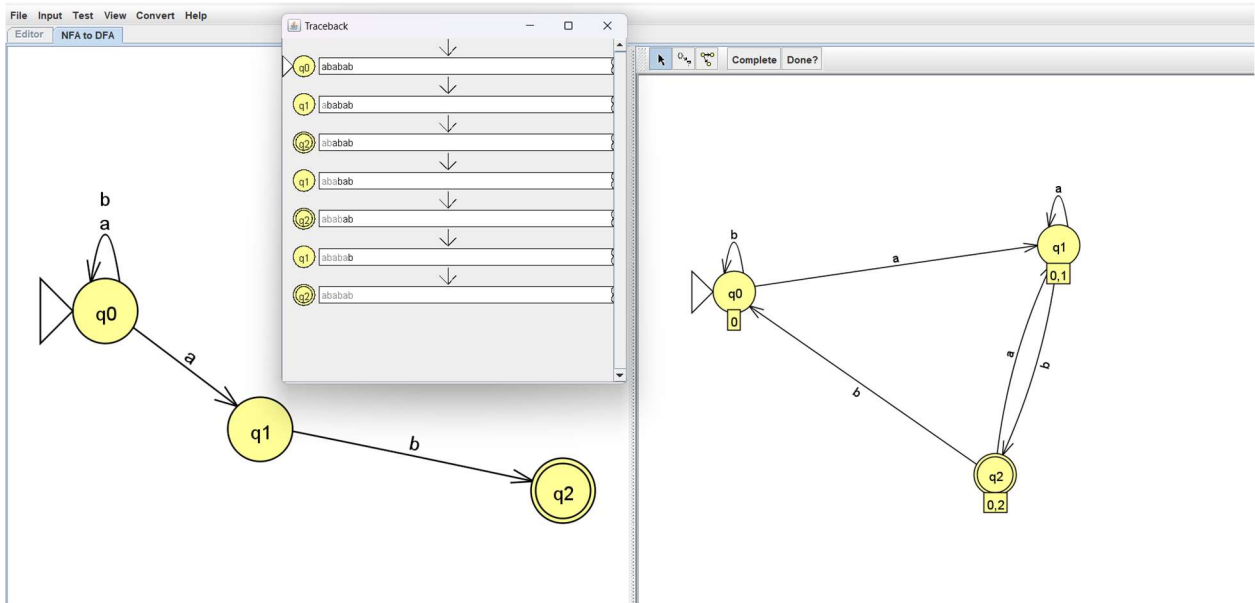


Table Text Size		
Input		Result
aa		Accept
bb		Accept
aaa		Accept
bbb		Accept
aabb		Accept
bbbaaa		Accept
ababba		Reject

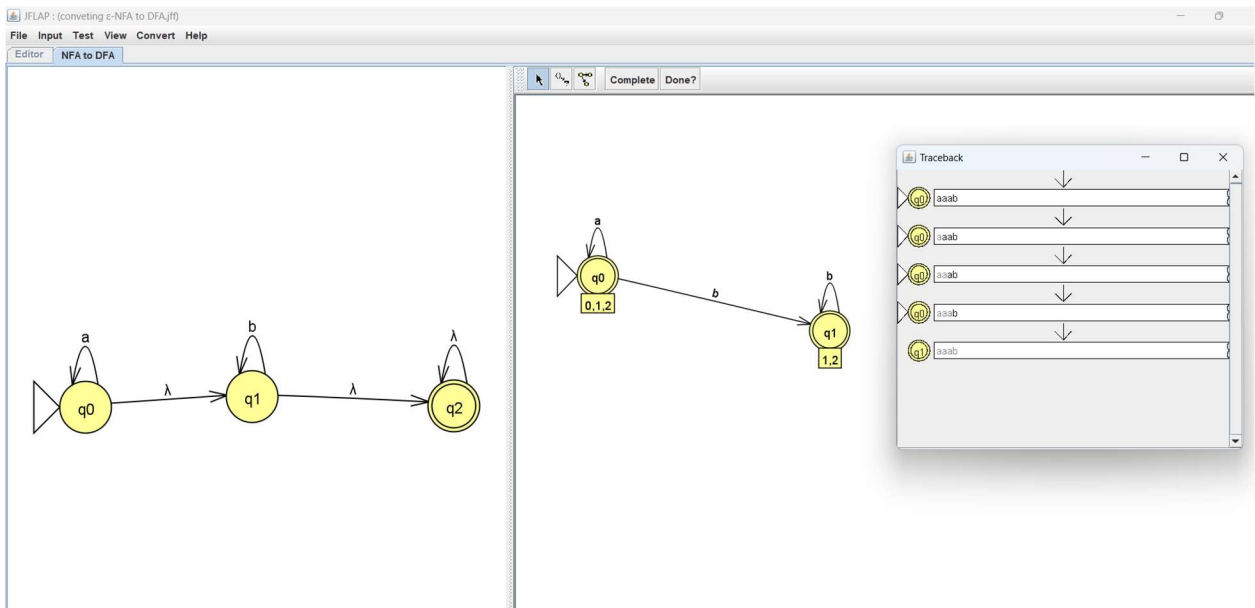
Traceback		
q0	aabb	↓
q1	aabb	↓
q3	aabb	↓
q2	aabb	↓
q3	aabb	↓

Name: Arjun Mijar

- Converting NFA to DFA

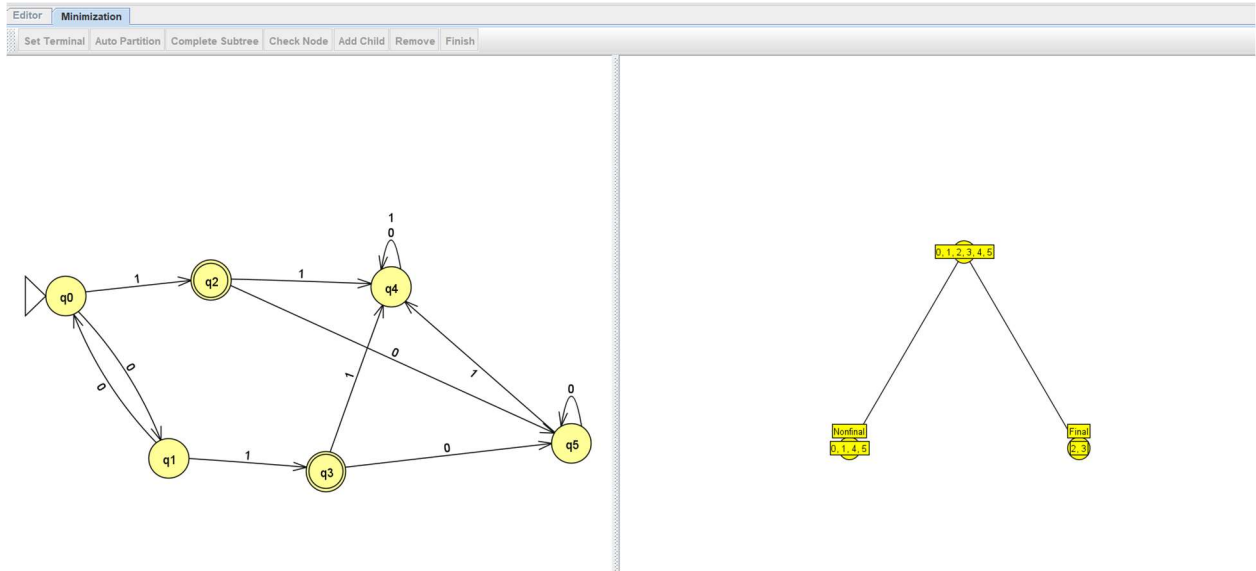


- Conversion, ϵ -NFA to DFA

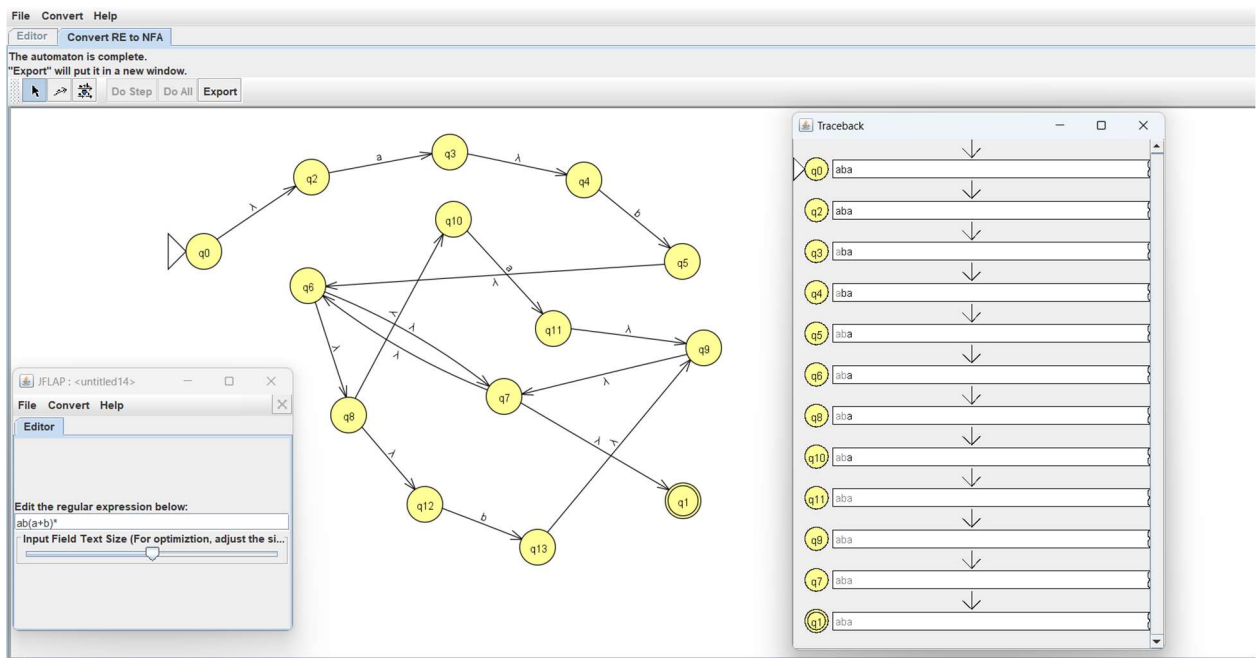


Name: Arjun Mijar

- Minimization of DFA

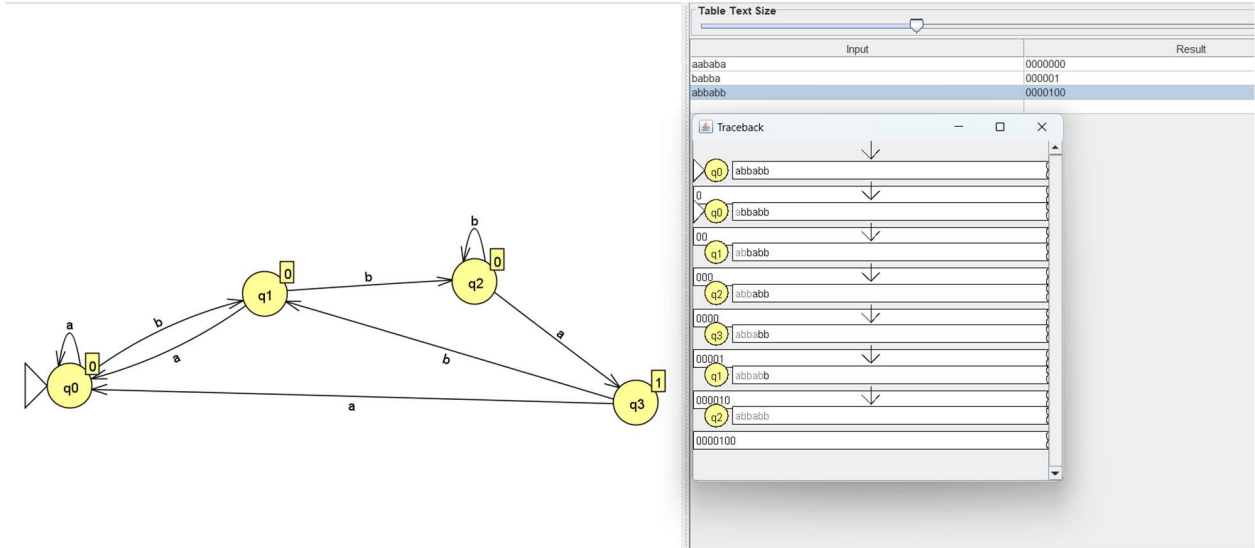


- Conversion, Regular Expression to NFA

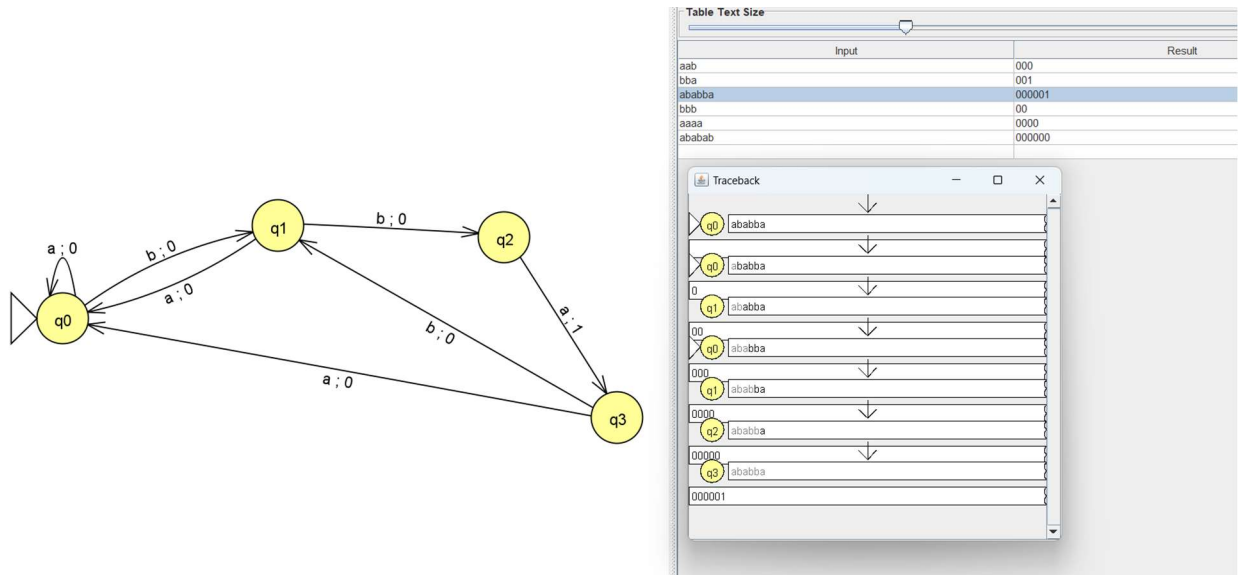


Name: Arjun Mijar

- Moore Machine that counts the occurrence of substring 'bba' in input strings.

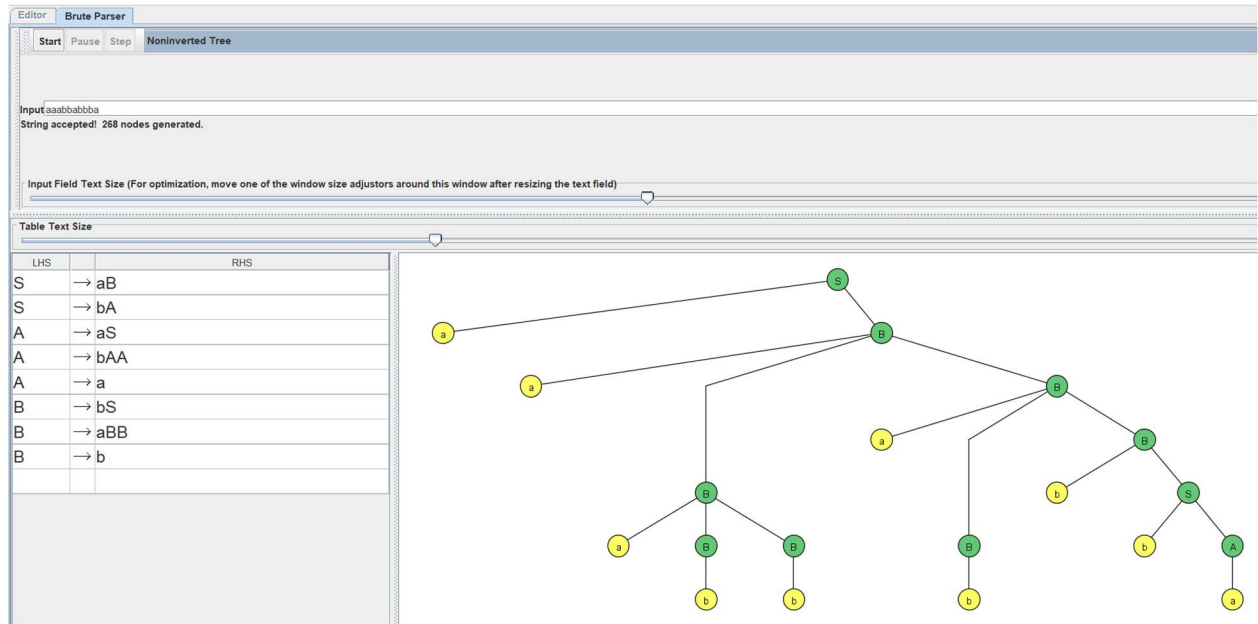


- Mealy Machine that counts the occurrence of substring 'bba' in input strings.



Name: Arjun Mijar

- Parse Tree – CFG



- Turing Machine ($L = \{a^n b^n \mid n \geq 1\}$)

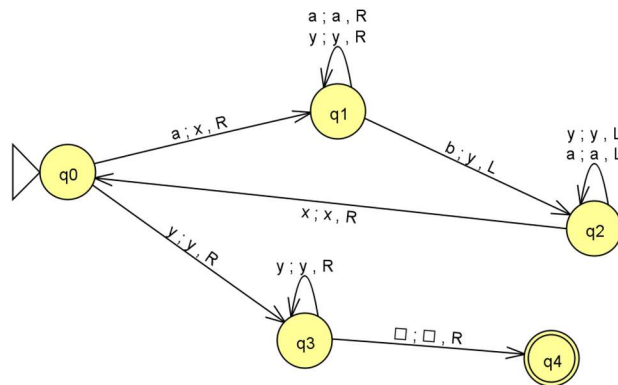


Table Text Size	
Input	Result
aabb	Accept
ab	Accept
aaabbbb	Accept
ababba	Reject

Traceback

The diagram shows a Turing Machine tape with the input string 'ababba' written on it. The tape is represented as a horizontal row of cells. The first six cells contain the characters 'a', 'b', 'a', 'b', 'b', and 'a' respectively. The remaining cells are empty. A red vertical bar is positioned under the first empty cell after the input string, indicating the current head position. A yellow circle with the number '94' is located above the first 'a' cell. A downward arrow points to the center of the tape, above the red bar.

Name: Arjun Mijar

- Push Down Automata ($L = \{a^n b^n \mid n \geq 1\}$)

