**Documentation Lab4**

Git = <https://github.com/CiontCristian/LFTC/tree/main/Lab4>

FA = {fa | fa € FiniteAutomata}

read(filename)

-desc:reads the structure of the FA from a file and organizes its components

Q(states) = list<String>

E(alphabet) = list<String>

q0(initial state) = String

F(final states) = list<String>

T(transitions) = list<((String,String), String)>

-input: fileName € String

-output: FA

FA File Structure:

fa = states alphabet initialState finalStates transitions

states = state { “ “ state }

state = “q” number

number = digit { digit }

letter = “a” | “b” … | “z”

digit = “0” | “1” … | “9”

alphabet = value { “ “ value }

value = letter | digit

initialState = state

finalState = state { “ “ state }

transition = “(“ state ”, “ value “)” “ -> ” state

transitions = transition { transition }