

<https://github.com/915-Podariu-Alexandru/FLCD/>

## Laboratory 4 Final

The Finite Automaton class uses the following variables:

- States: List<String>
- Initial state: String
- Final States: List<String>
- Alphabet: List<String>
- Transitions: Map< Couple<String, String>, Set<String> >

Functions:

- Getters for the 5 variables used
- Read file(String file): reads from a file the values for the variables in the manner described in BNF.
- isDeterministic: Return whether a Finite Automaton is deterministic or not
- acceptsSequence(String sequence): Return whether a given sequence is accepted by the Finite Automaton or not

The correct Lexic and Syntax for writing a Finite Automaton

letter := 'a' | 'b' | ... | 'z' | 'A' | 'B' | ... | 'Z'

operator := '-' | '+'

digit := '0' | '1' | '2' | ... | '9'

alphabetSymbol := letter | digit | operator

alphabet := alphabetSymbol { "," alphabetSymbol }

state := letter

listOfStates := letter { "," letter }

transitions := state alphabet state

listOfTransitions := transition { "\n" transition }

initialState := State

finalStates := state { "," state }

FiniteAutomatonFile := listOfStates "\n" initialState "\n"

finalStates "\n" alphabet "\n" listOfTransitions