

DOCUMENTATION

GitHub: <https://github.com/PheOniX12/FTCD/blob/main/lab4/LFTC%20Lab%202/Documentation>

FA:

The FA class is a finite automate which contains states, an alphabet, transitions, an initial state and a final state. They are read from file

Functions:

- readFromFile() - reads the file and initializes the states, alphabet, transitions, the initial state and the final state
- printStates() – prints the states
- printInitialState() – prints the initial state
- printAlphabet() -prints the alphabet
- printOutputStates()- prints the alphabet
- print Transitions() -prints the transitions
- checkAccepted(String word)- checks if a string is accepted by the FA
- getNextAccepted(String word) – gets the substring of the input accepted by the FA

Transitions

This class is used for representing a transition. It has 3 fields: from, to and label.

FA.in file format written in EBNF:

non_zero_digit = 1|2|...|9

digit = 0|1|...|9

number = non_zero_digit{digit}

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

character = letter|digit

firstLine = "states""{character}{"",character}

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secondLine ="alphabet"" : "{character}{"","character}
thirdLine = "initial states" ":"{character}
fourthLine = "final state" ":"{character}{"","character}
transition = {character} " " {character} " " {character}
fifthLine = "transitions" ":" transition {""," transition}
inputFile = firstLine "\n" secondLine "\n" thirdLine "\n" fourthLine "\n" fifthLine
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