DOCUMENTATION

GitHub:

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 fileds: 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}

secondLine ="alphabet"":"{character}{","character}

thirdLine = "initial states" ":"{character}

fourthLine = "final state" ":"{character}{","character}

transition = {character} " " {character} " " {character}

fifthLine = "transitions" ":" transition {"," tansition}

inputFile = firstLine "\n" secondLine "\n" thirdLine "\n" fourthLIne "\n" fifthLine "\n"