LFCD – FA

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Git link:

In the txt file (“fa.txt”) the automata is represented like this:

On the first line is a list of all states separated by “ “

On the second line is a list of the alphabet separated by “ ”

On the third line is a list of initial states separated by “ “

On the fourth line is a list of final states separated by “ “

The rest of the lines are the transitions written like this:

[outstate instate value

…]

They are interpreted in this way:

outstate -> instate = value

In my FA class I have:

```
self.__states=[]
#list of all states
self.__alphabet=[]
#list of all elements of the alphabet
self.__initial = []
#list of initial states
self.__final = []
#list of final states
self.__fa =[]
#list of transitions
#they are saved each transition in its own list such that
#fa[0] = instate, fa[1] = outstate and fa[2] = values of transition
self.readFromFile()
#the function that reads from file and fills the fields
```

In order to display the required information I have the funtions:

displayStates():

Input:-

Output:-

Displays a list of all states from FA

displayAlphabet():

Input:-

Output:-

Displays a list of all elements from alphabet of FA

displayTranstions():

Input:-

Output:-

Displays a list of all transitions from FA

displayInitialSt():

Input:-

Output:-

Displays a list of all initial states from FA

displayfinalSt():

Input:-

Output:-

Displays a list of all final states from FA

printMeniu ():

Input:-

Output:-

Displays a list of all commands available for the user

start():

Input:-

Output:-

Reads the input from the user and calls the functions to display the desired information

The function I used to read from file:

readFromFile()

Input:-

Output:-

Reads input from file (“fa.txt”), completes each attribute of FA with the information from file and eliminates unwanted “\n” characters