Documentation

Source code: https://github.com/caprapaul/flcd/tree/lab_04

Finite Automata

The FA is read from a json file.

To check if it is deterministic we go through each list of transitions in the `Transititions` dictionary and check if it contains elements with the same label.

To verify if a sequence is accepted by the FA we start from the initial state and go the next state using the `Transitions` dictionary.

EBNF

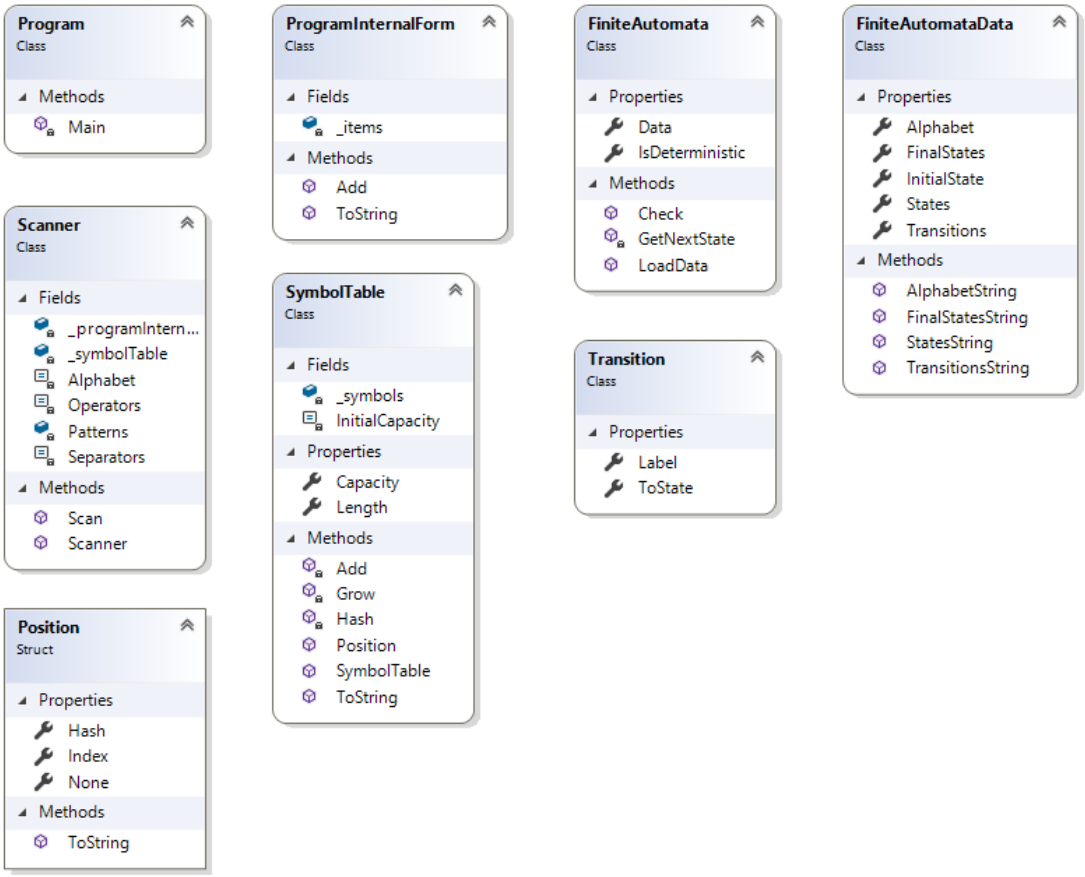
```
fa ::= "{" states "," alphabet "," intial_state "," final_states "," transitions
"}"

states ::= '"States"' ":" list
alphabet ::= '"Alphabet"' ":" list
initial_state ::= '"InitialState"' ":" string
final_states ::= '"FinalStates"' ":" list
transitions ::= '"Transitions"' ":" transitions_dictionary
transitions_dictionary ::= "{" [transitions_dictionary_items] "}"
transitions_dictionary_items ::= transition | transition "," transition
transition ::= string ":" "[" [transition_items] "]"
transition_items ::= transition_item | transition_item "," transition_item
transition_item ::= "{" '"ToState"' ":" string "," '"Label"' ":" string "}"

list ::= "[" [list_items]  "]"
list_items ::= string | string "," string

string ::= '"' {char} '"'
char ::= letter | digit
letter ::= "a" | ... | "z" | "A" | ... | "Z"
digit ::= "0" | ... | "9"
```

Classes


Program
Class
Methods
Main
ProgramInternalForm
Class
Fields
_items
Methods
Add
ToString
FiniteAutomata
Class
Properties
Data
IsDeterministic
Methods
Check
GetNextState
LoadData
FiniteAutomataData
Class
Properties
Alphabet
FinalStates
InitialState
States
Transitions
Methods
AlphabetString
FinalStatesString
StatesString
TransitionsString
Scanner
Class
Fields
_programIntern...
_symbolTable
Alphabet
Operators
Patterns
Separators
Methods
Scan
Scanner
SymbolTable
Class
Fields
_symbols
InitialCapacity
Properties
Capacity
Length
Methods
Add
Grow
Hash
Position
SymbolTable
ToString
Transition
Class
Properties
Label
ToState
Position
Struct
Properties
Hash
Index
None
Methods
ToString