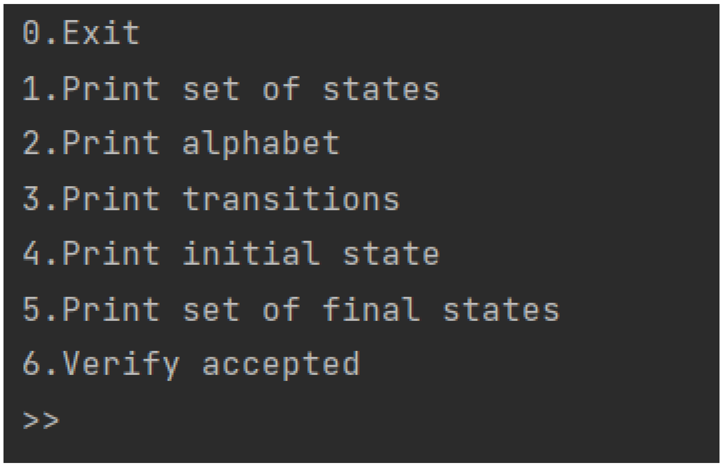
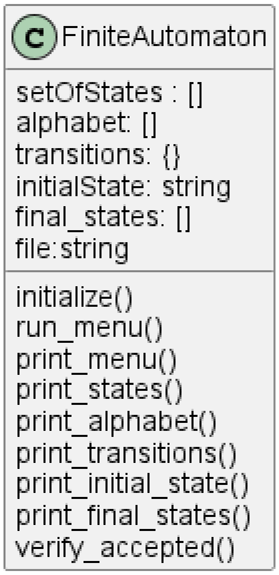
FiniteAutomaton

Menu:



```
0.Exit
1.Print set of states
2.Print alphabet
3.Print transitions
4.Print initial state
5.Print set of final states
6.Verify accepted
>>
```

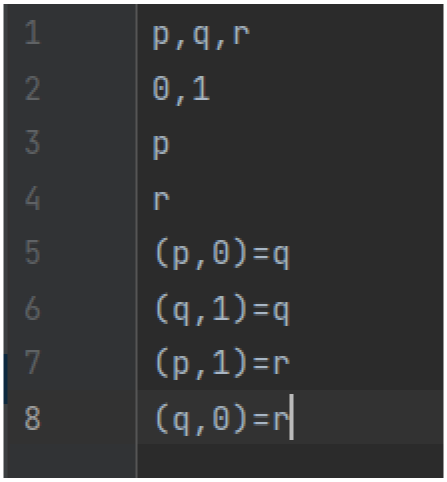
Class diagram:



initialize() - reads the given file and sets the states, alphabet, transitions, initial and final state

verify_accepted() - reads the input from the users and prints true if the sequence is accepted, false otherwise

File example:



```
p,q,r
0,1
p
r
(p,0)=q
(q,1)=q
(p,1)=r
(q,0)=r
```

letter ::= "A" | "B" | . ..| "Z"|"a"|...|"z"

digit ::= "0" | "1" |...| "9"

character:='letter'|'digit'

string:=char{string}

operators::= "="

separators::= "(" | ")" | ","

alphabetElement::= string

alphabet::= {alphabetElement}+

state ::= string

states ::= {state}+

initialState ::= state

final_states ::= {state}+

transition ::= “(“ state “,” state “)=” alphabetElement

transitions ::= {transition}+

Fa.in ::= states alphabet initialState final_states transitions