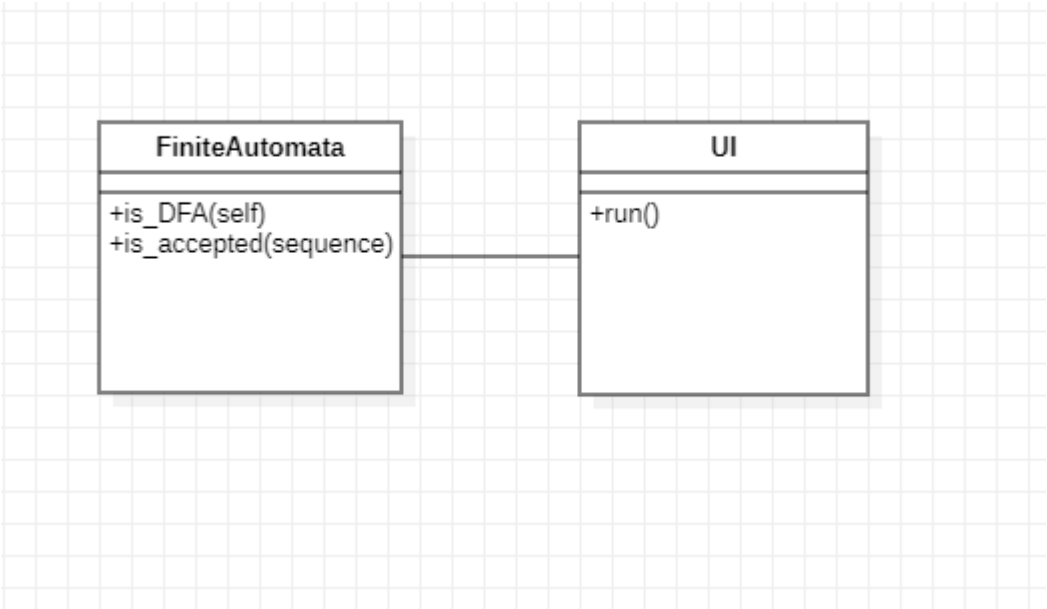
GitHub: https://github.com/AlexandruStinga/FLCD

The finite automata is a class with 5 fields, each depicting its theoretical definition. The transitions are kept in a dictionary of the form: (‘P’, ‘0’) : [‘Q’].
The class has 2 functions, is_DFA which checks if the FA is a DFA by going through the dictionary and checking if any of the dictionary keys has a list with a length > 1. The second function, is_accepted checks if the given sequence is accepted by the FA.



File format:

non_zero_digit = 1 | 2 | .. | 9
digit = 0 | 1 | 2 | … | 0
number = non_zero_digit{digit}
letter = a | b | … | z | A | B | … | Z
character = letter | digit
first_line = “Q = ” character { “ ” character}
second_line = “E = “ character { “ “ character}
third_line = “q0 = “ character
fourth_line = “F = “ character { “ “ character}
transitions = “(“ character “,” character “) -> ” character { “\n” “(“ character “,” character “) -> ” character }
file = first_line “\n” second_line “\n” third_line “\n” fourth_line “\n” transitions