

Finite Automata

[GitHub](#)

In the **Finite Automata** class, we have the following fields:

- Q: the set of all states
- E: inputs, or alphabet (sigma)
- q0: initial state
- F: final states
- S: transition function from $Q \times E \rightarrow Q$

The methods:

- ✚ `getLine(line)`: which gets everything that comes after the '='
- ✚ `validate(Q,E,q0,F,S)`: we validate the Finite Automata
- ✚ `is_dfa()`: which checks if the current Finite Automata is deterministic
- ✚ `is_accepted(seq)`: checks if the sequence is accepted (eg: 0, 1, 0..1). it is done by going through each symbol and checking if that the sequence can be obtained by following the FA transitions.
- ✚ `read_from_file(file_name)`: reads the Finite Automata from file

UI class, in which the menu is displayed and also the run function.

Main class in which we run the program.