**Source code:** <https://github.com/raresica1234/LFTC/tree/master/Lab4>

**Menu command**

­A menu command is simply a class that contains a description and a function that gets called when the menu command is called

**Menu**

A menu contains a list of all the menu commands. It first displays all of the descriptions from the menu commands and then listens for input. If the input is less than the size of the menu commands. Then it calls the function of the menu command at that specific index.

**Transition**

A transition is simply a tuple of a source, a destination and a value.

**Finite automata**

A finite automata contains a list of states, an initial state, a set of final states, and a list of transitions. The automata is checked to see if it’s deterministic during reading, by making sure that no transition with the same source and value already exists in the list of transitions.

**EBNF for the FA**

character = “0” | “1” | … | “a” | “b” | …. | “A” | “B” | … | “Z”

word = character {character}

states = word {word}

initial\_state = word

alphabet = word {word}

final\_states = word { word}

transition = word word word

transitions = transition {transitions}