

Lab01: Introduction to Lexical Analysis (01 week)

Part 1: Implementing an Automata.

The objective of this part is to create a C program of a deterministic finite-state automata: the data structures as well as the functions for manipulating the automata. You must implement:

- Dynamic structures to represent the automata: states, transitions, and symbols;
- All necessary functions for manipulating the automata: creation; display; adding a state, adding a transition.

Part 2: Recognizing a Word from the Language

Write a function that:

- Reads a text from a file;
- Analyzes the text;
- Displays the list of recognized words along with lexical errors.

Part 3: Testing

You can test your implementation on any deterministic automata.