https://github.com/cs-ubbcluj-ro/lab-work-computer-science-2024-dragosgavrus1/tree/main/2-Finite-Automata

Gavrus Dragos Andrei

Class: FiniteAutomata

- **Purpose**: Represents a finite automaton with states, an alphabet, transitions, an initial state, and final states. Can validate whether words are integer constants or identifiers based on transitions.
- **Methods**:
    - __init__(_filename): Initializes the FA by loading definitions from a file _filename. Sets up states, alphabet, transitions, initial and final states.
    - read_from_file(): Reads the FA configuration from the specified file. Populates states, alphabet, transitions, initial state, and final states based on the file's contents.
    - print_fa(): Prints the components of the FA, including states (Q), alphabet (E), transitions (RO), initial state (q0), and final states (F).
    - check_word_if_integer_constant(word): Checks if a given word matches the FA pattern for an integer constant. Returns True if the word meets the criteria, False otherwise.
    - check_word_if_identifier(word): Checks if a given word is an identifier based on the FA transitions. Returns True if the word qualifies as an identifier, False otherwise.