

GitHub link: <https://github.com/9x7-Alex-Tufaru/FLCD/tree/main/Lab5>

Grammar

`read_grammar_from_file(self, file_path)`: Reads grammar from file. The non-terminals are on the first line, the terminals on the second, the start symbol on the third and the rest of the lines are the productions.

`productions_for_a_given_non_terminal(self, non_terminal)`: Returns the productions of a given non-terminal if it's valid.

`cfg_check(self)`: Checks if all the productions come from a non-terminal

`closure(self, analysis_element)`:

`goto(self, analysisElements, symbol)`: Function that finds all the analysis elements from a state which have . right before a given symbol, moves that . after the symbol and calls the closure function on it

`canonicalCollection(self)`: Function that builds the canonical collection based on a new starting symbol

Production

`def __init__(self, left_hand_side, right_hand_side)`:

`self.left_hand_side = left_hand_side`

`self.right_hand_side = right_hand_side`

Analysis element

`def __init__(self, production, prefix_position)`:

`self.production = production`

`self.prefix_position = prefix_position`