COMPSCI 4TB3 Group 02

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Description

Our task for this project is to take a step further with Jupyter Notebook's given functionalities by providing users with the ability to animate any given algorithm. We will be implementing animations using the features of svg or by some other means.

The implementation can be tested successfully by achieving step-by-step animation while running the following program:
- derivation of sentence
- execution of FSM
- algorithms for making FSM deterministic and minimal
- algorithm of checking FSM equivalence
- execution of pushdown automata
- generalized parsing

This project will be documented and demonstrated by Jupyter notebooks throughout the development period. We hope to learn more about code generation after finishing this project, by generating SVG code based on the execution of given program. Furthermore, it also helps us to consolidate our knowledge on the topics and materials learned throughout the course.

Resources Used

COMPSCI 4TB3 Course Notes on jhub4 by Dr. Emil Sekerinski, McMaster University, January 2020

Development Tool (IDE):
http://lighttable.com/
CSS manual and guides:
https://css-tricks.com/animating-svg-css/
SVG animation guides:
https://www.w3schools.com/graphics/svg_intro.asp

Division of Work

Generalized task:
- testing / experiment / documentation as implementation progresses

Mingnan:
- svg animation and algorithm implementation of
    - algorithms for making FSM deterministic and minimal
    - generalized parsing

Jessica:
- svg animation and algorithm implementation of
    - derivation of sentence
    - execution of pushdown automata

Suri:
- svg animation and algorithm implementation of
    - execution of FSM
    - algorithm of checking FSM equivalence
- poster design

Weekly Schedule

Feb 26th	Completion of project proposal
March 4th	Beginning of algorithm implementation
March 11th	Completion of algorithm implementation
March 18th	Completion of animation implementation
March 25th	Completion of testing and experiments
April 1st	Bug fixes and finalizing the project
April 6th	Completion of project poster