MMJA Automation
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CptS 322 Software Engineering Principles I
Project Milestone 1

(Preliminary Information)

Actors:

User - The individual who will interact with the software
Automata Storage System - The system which stores saved automata

(Cases) - Must produce results of value to the user

Create New Automata

- Allow the user to create a new automata from scratch
  - Basic Flow
    - User selects create a new automata
    - User gets prompted for name
    - User inputs filename
    - Program goes into edit mode/interface
    - User edits new automata

Save Current Automata

- Allow the user to save a copy of their currently created automata to be opened later
  - Basic Flow
    - User selects save button
    - Save dialog appears
    - User fills out save dialog (File path, file name) and presses save
    - User is returned to main automata viewer.

Load Existing Automata

- Allow the user to load a copy of a previously saved automata
  - Basic Flow
    - User selects Load existing automata
    - Program prompts user for a name
    - User enters name of file
    - Program searches for file
    - Program finds file
    - Program loads chosen file
  - Alternate Flow
    - Program does Not find file
    - User is notified that filename does not exist
    - User can search for another name

Edit Current Automata

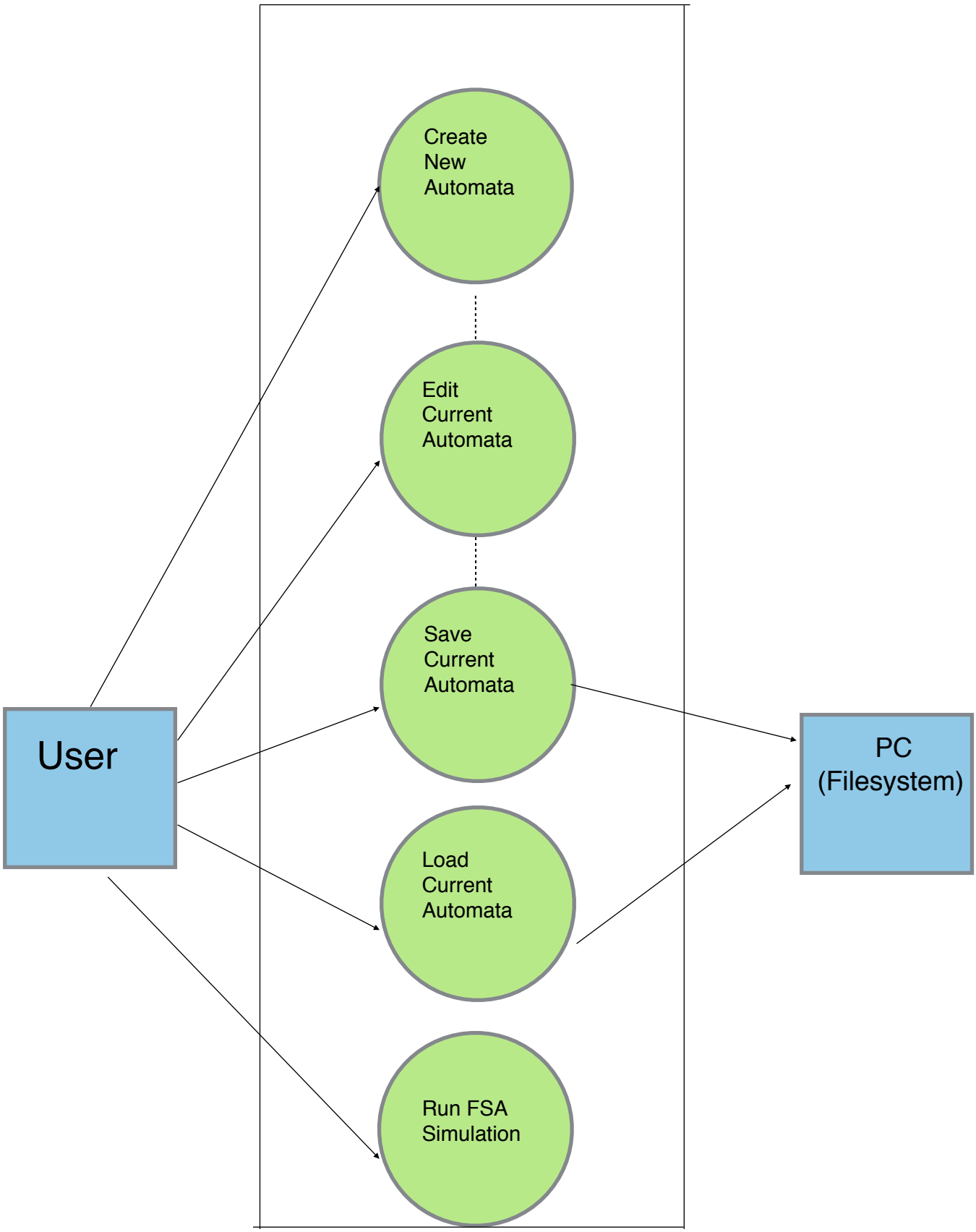
- Allow the user to see and manipulate the data that currently makes up the automata being displayed

- Basic Flow (assumes edit window is closed)
    - User selects ‘edit’ from menu bar, the edit window is displayed
    - Edit window allows user to change values of;
        - Node Set
        - Transition Set
        - Starting Node
        - Ending Node
        - Name
    - User Applies or Cancels their changes, information is given to automata viewer
    - User can close edit window or leave it open via ‘x’ in top corner
- Alternate Flow (Assumes edit window is open)
    - Edit window allows user to change values of;
        - Node Set
        - Transition Set
        - Starting Node
        - Ending Node
        - Name
    - User Applies or Cancels their changes, information is given to automata viewer
    - User can close edit window or leave it open via ‘x’ in top corner

Run FSA simulation on supplied input

- Allow the user to enter values and test them on the current Automata, Returns Yes or No
    - Basic Flow
        - User enters a word to test in the “Test word” textbox.
        - Either Yes or No is printed based on if the word exists in the FA.
    - Alternate flow
        - If there is no FA open in the automata viewer, print “Please load a FA or create a new FA

Summary of contributions: All members worked on brainstorming and describing the use cases. Michael Nulle drew a rough draft of the use case diagram with the guidance of group discussion. Justin Jackson used software to make a digital version of the use case diagram. Matthew Bourland wrote the summary of the contributions.


Create
New
Automata
Edit
Current
Automata
Save
Current
Automata
Load
Current
Automata
Run FSA
Simulation
User
PC
(Filesystem)