

EE/CprE/SE 491 REPORT 8

Mar 27 - Apr 2

Group number: 10

Project title: “Visualizing Probabilistic Whereabouts of Moving Objects”

Client &/Advisor: Goce Trajcevski

Team Members/Role:

Nathan Thoms - Frontend Lead

Mara Prochaska - Backend Lead

Eric Jorgensen - Documentation

Ryan Cook - Backend / Frontend Switch

Report Summary

For the week of March 27th through April 2nd, our team began fine-tuning the design of our application for the visualization of object whereabouts. Most notable, we completed the Design portion of design documentation, relating to our design options, library and language decisions, and a system diagram. We also reflected on potential areas of concern and identified how well our design meets user needs and requirements.

Accomplishments

Many of our accomplishments for this week are related to the research and figures we included in our design document. The tangible accomplishments for this week, partly alluded to in the report summary section, are as follows:

- Reflected on the design choices that have been made throughout the semester including languages, libraries, compilers, and system structure
- Drafted a weighted decision matrix for the format of the application between our choices of mobile, desktop, and web

		20	25	38
Options		Mobile	Desktop	Web
Decision making factors	Weighting	Your Score	Your Score	Your Score
Breadth	3	2	3	5
Skillset	2	4	2	4
Data Access	3	2	4	5

Figure 1- Weighted Decision Matrix for Application Format

- Analyzed areas of concern, development, and completed an overall design analysis for the project
- Add additional
- Added various functionality diagrams samples shown in Figures 2 & 3
- Talked on the Technologies planned on being used throughout the the project and the advantages and disadvantages
- Created UML diagrams describing JSON objects passed from front to back end. An example of one of the diagrams is included in Figure 4.
 - User Authentication
 - Data Input & Management
 - Whereabout Queries & Results

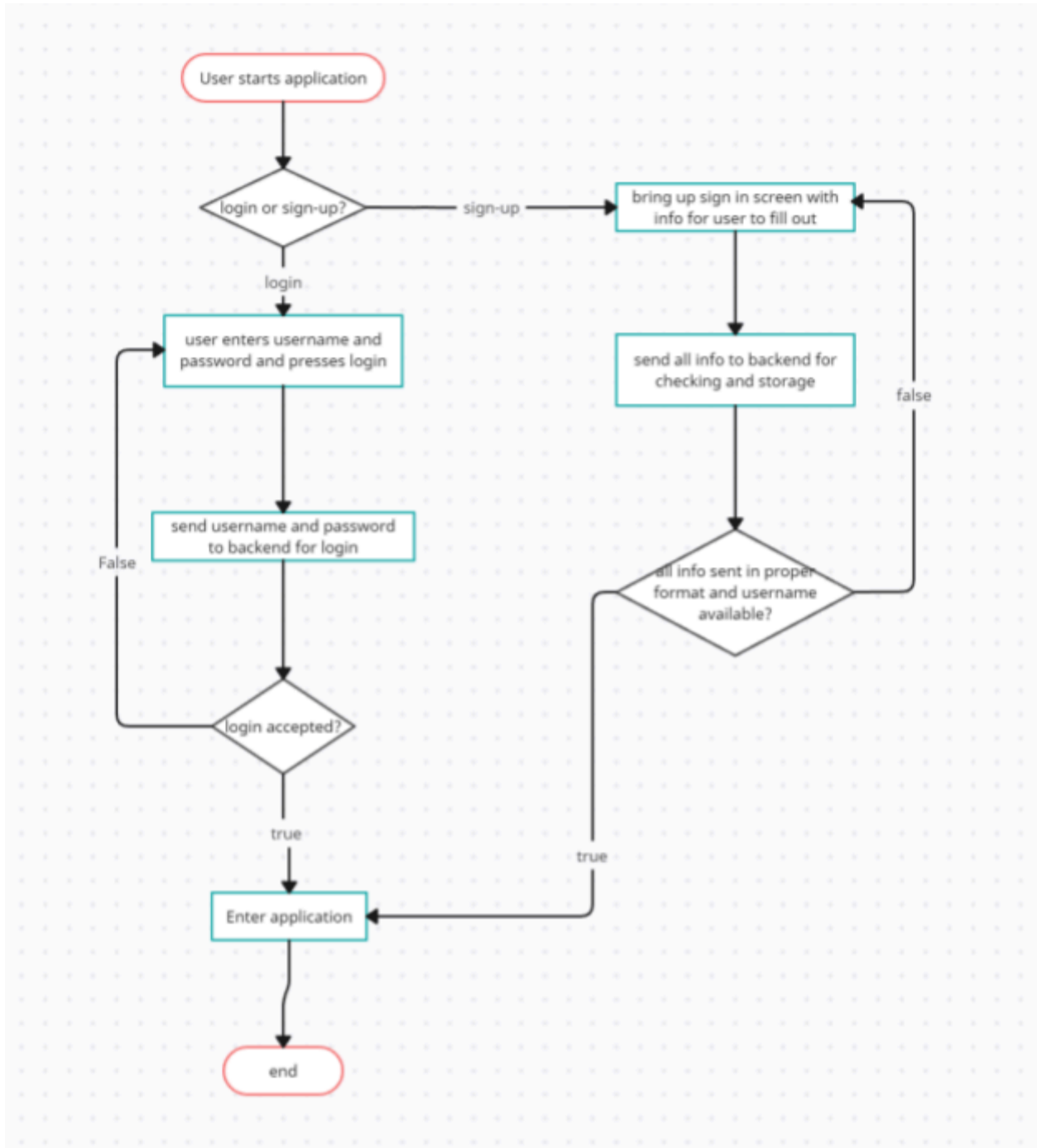


Figure 2: Front-end login/sign-up

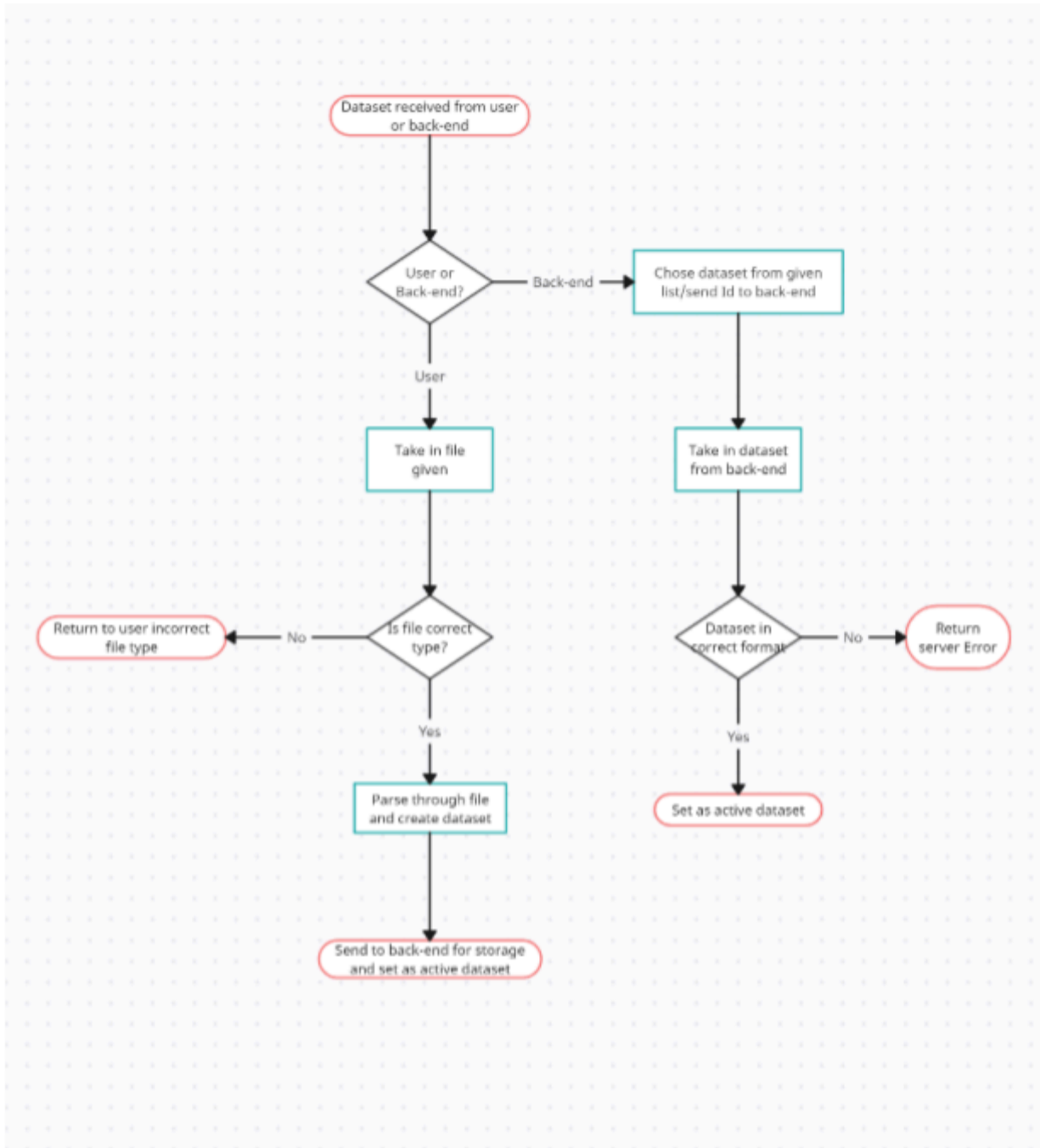


Figure 3: Front-end file/dataset handling

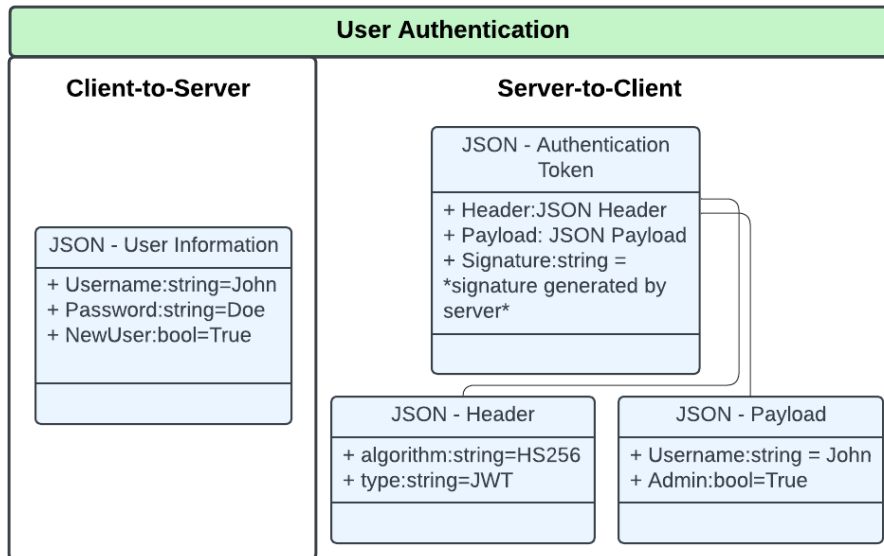


Figure 4 - User Authentication JSON Objects

Pending Issues

One pending issue, is that we currently do not have access to a VM for this project since we have not yet requested one from ETG. Although this is not an urgent blocking issue, we hope to request a VM soon in order to continue progressing with a prototype for our project.

Individual Contributions

Team Member	Individual Contribution	Hours this Week	Hours Cumulative
Nathan Thoms	Produced UML diagrams for JSON objects – describe backend API	6.5	44
Mara Prochaska	Design storyboarding, design choice weighted matrix, and team meetings	6	36.5
Eric Jorgensen	Design doc, weekly report	3.5	28.5
Ryan Cook	Created functions diagrams and team meetings	6.5	32.5

Upcoming Plans

Within the next week we plan to reach out to ETG to discover what resources they have available to our senior design team. We are looking to reserve a VM and figure out more information on reserving a web-domain that we can use to access our application.

Additionally, we are going to begin iterating over our design. We are now at a point where we have an initial plan and need to begin identifying failure points, or areas lacking in details that may have been glossed over.

Action Items

Team Member	Individual Goals	Estimated Hours
Nathan Thoms	Research the bridgelets algorithm to get a better understanding of the resources/data it requires.	6
Mara Prochaska		
Eric Jorgensen		
Ryan Cook	Continue to learn JavaScript	6

Advisor Meeting Summary

In this week's advisor meeting our team discussed class details pertaining to the closing of semester – final presentation, design documents, ect.. This aided in painting a fuller picture of what is to come so we can prepare in advance.