EE/CprE/SE 492 Status Report 3

Sept. 20 - Oct. 3

Group number: 10
Project title: "Visualizing Probabilistic Whereabouts of Moving Objects"
Client &/Advisor: Goce Trajcevski

Team Members/Role:
Nathan Thoms - Team Lead & Frontend Developer
Mara Prochaska - Backend Developer
Eric Jorgensen - Documentation
Ryan Cook - Fullstack Developer

Report Summary

During the last two weeks, we have continued implementing data input on the frontend and backend. We have also continued discussions with our faculty advisor on algorithm implementation and improvements to the UI. Our team has seen significant development in the maturity of the application and it is starting to have some functionality. Overall, we are on track with implementation and have been meeting the expectations of our faculty advisor in terms of progress.

Accomplishments

Frontend has been able to complete a significant portion of the UI with Nate creating pages for all major functionalities in the application. Nate has been able to allow data sets to be uploaded by users, view other data sets, and remove data sets. We have not fully completed implementation of data sets on the backend, so these options have not been tested yet through backend. Below is an updated image of the map interface for users with movable data points and connections. This is one view our team will utilize for data visualization after calculations with the algorithms on backend.

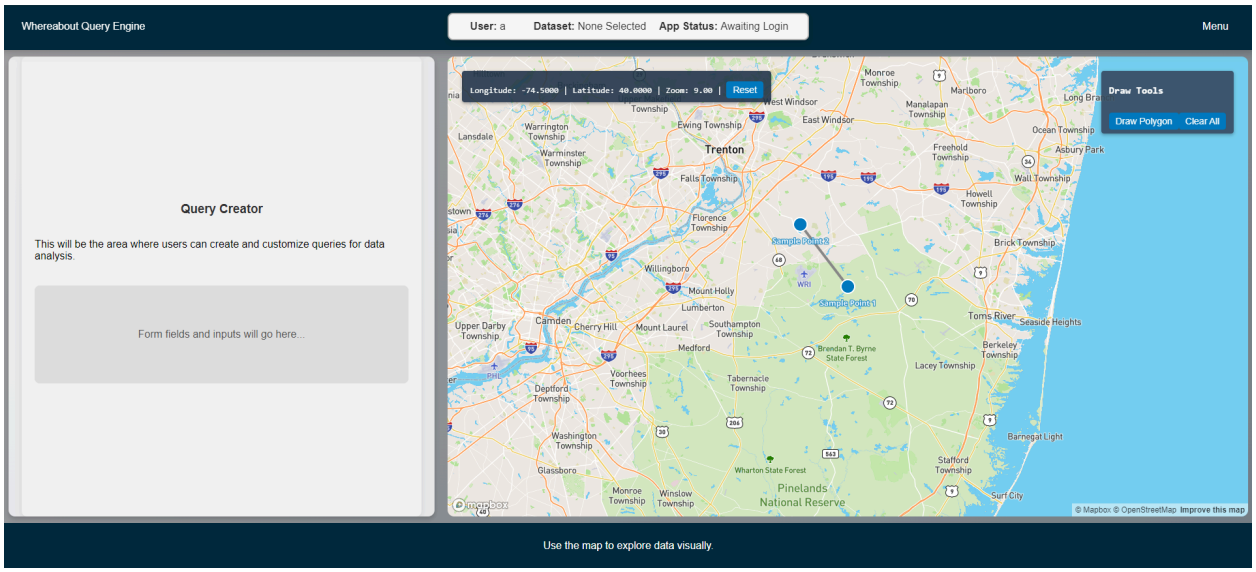

Figure 1 - *Query Creation & Visualization UI Components.*

Backend implementation has continued by building objects that will store application data. THis includes classes such as DataSet, DataPoint, Cartesian, and LongLat. Additionally, we have built out the Users class as well with corresponding GET, POST, PUT, and DELETE methods for each class. We have been experimenting with spreadsheet libraries in order to receive a .xls file of the data that is input on the frontend. So far, we have been able to successfully receive a file using Postman and are continuing to work on connecting this functionality to the frontend side. Next steps for backend will be to finalize data parsing and uploading to the server. We will also need to continue to understand our plan to implement algorithms and how to format the responses to send back to the frontend for visualization.

Pending Issues

No current pending issues.

Individual Contributions

Team Member	Individual Contribution	Hours this Period	Hours Cumulative
Nathan Thoms	Frontend work, data set input, testing	15	77.5
Mara Prochaska	Status report, meetings, backend work	12	66.5
Eric Jorgensen	Advisor meeting, access to source code	4	39
Ryan Cook	Reboot server, backend work, data set format	13	63

Upcoming Plans

Frontend plans to test connections to the backend and ensure both sides are able to communicate with the current methods that have been built on the backend. Backend is planning to begin algorithm implementations and finalize the data set storage into the server. Our team will have another meeting with our advisor this week. We have also scheduled our second meeting with Professor Shannon, which will take place next week.

Action Items

Team Member	Individual Goals	Estimated Hours
Nathan Thoms	Continue UI development on frontend.	12
Mara Prochaska	Continue backend data set and algorithm development.	12
Eric Jorgensen	Attend team meeting, learn node.js	8

Ryan Cook	Continue backend algorithm and data input	12