

ECpE 491 – Weekly Report #10

Apr 16 – Apr 30

Project Title	Interactive evaluation of shortest path methods
Client & Advisor	Goce Trajcevski, Mengxuan Zhang
Team	sddec23-14
Team Members	Alex Blomquist, Samuel Caldwell, Selma Saric, Yadiel Johnson

1 Report

1.1 Abstract

The team has finalized the design document, prepared and refined the final presentation slides, researched third-party tools for frontend integration, and initiated the development of a Spring Boot server-side application.

1.2 Work Breakdown

Over the last week, the team worked on the final design document for this semester. Extensive review took place to ensure that each section accurately represented what it was meant to convey and integrated client feedback, as well as adding refinements that aligned it with industry standard. These refinements include in-text citations, content labeling, and standardization of terminology. To complement this document, the team also worked on the slides and notes for the final presentation for this semester, this time aimed at faculty and staff.

Finally, extensive research on tools and solutions for various parts of the project was performed. The tools, and the way they've been used, are shown below:

- *Graphology* and *Gram*: For frontend algorithm visualization when related to general purpose datasets.
- *MapBox*: For frontend algorithm visualization when related to road networks or maps.
- *Spring Boot* and *Java 17*: For the server-side components. Research on the advancement of the framework and language since they've been last used by the team. Initial implementation is currently underway.
- *Figma*: For the frontend user interface. This tool was used to develop a wireframe prototype for the UI.

1.2.1 Major accomplishments

- Integrated Additional Research and GitHub Code for future implementation into the Final Design Document
- Finalized the Final Design Document.
- Continued development of the faculty presentation PowerPoint slides.

- The wireframe diagram (or the mock user interface) finalized and integrated into the design document.

1.2.2 Pending issues

- N/A

1.2.3 Individual contributions

Name	Individual Contributions	Worked Hours	
		This Week	Cumulative
Alex Blomquist	<ul style="list-style-type: none"> • Integration of shortest path algorithm research and code repositories into the Design Document • Integration of the Wireframe into the design document with Selma Saric • Acquired GitHub repositories for MapBox and Graphology visualization integrated references into design doc. • Performed additional research into integration of the shortest path into maps and traffic routing. • Assisted in team in final revisions to the end of semester presentation 	6	47
Samuel Caldwell	<ul style="list-style-type: none"> • Revisions of various sections of the Final Design Document • Assisted in formatting and revising the final presentation 	5	41
Selma Saric	<ul style="list-style-type: none"> • Finished working on a wireframe/mock UI on Figma to draw out what every page of our web application will look like. • Collaborated on editing part of the final presentation. • Filled out meeting minutes document. 	5	50
Yadiel Johnson	<ul style="list-style-type: none"> • Initial implementation of <i>REST API Server</i> component. <ul style="list-style-type: none"> ○ Research regarding Spring Boot and associated libraries. • Overall formatting for the draft design document. • Section 1: Report and overall development for this weekly report. 	5	62

2 Comments and extended discussion

2.1 Work Planned for Next Week

2.1.1 Collective

The next major step for our project is to prepare for our final presentation to the board on Thursday, May 4th.

2.1.2 Individual

- Alex Blomquist
 - Practice presentation with the team
 - Practice presenter notes for my respective slides
- Samuel Caldwell
 - Make any final adjustments to the presentation and presenter notes.
 - Practice presentation with the team
- Selma Saric
 - Finish working on the final presentation.
 - Practice presentation with the team
- Yadiel Johnson
 - Continue development of the RESTful API server concept.
 - Practice presentation with the team

2.2 Summary of weekly advisor meeting

For our meetings these past two weeks, we met with our client, who offered feedback on our presentation. We made a few final adjustments to the presentation slides. There was also some discussion regarding our final design document, and we received and implemented feedback from the client.