**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**

This week we have begun to think more intently about getting our project setup so we can begin implementing some basic functionalities proposed in our design. We are wanting to set up a development environment for our project and build in user-login functionality by the end of the semester. This week we have started down the path of implementation. This has involved registering a VM with ETG for our project and researching Vue-Springboot project development structures.

**Accomplishments**

Thus far in the implementation process we have achieved the following:

- Contacted ETG and had discussions pertaining to the resources required for the project
- Filled out VM request form with ETG
  - Taking into consideration in-person discussions
- Began research in the development of Vue-Springboot applications
  - Relationship between front and back end components in development
  - Static file server in spring boot
  - JWT authentication in spring boot

- - ○ Front End development – Vue CLI, development server that serves Vue.js application during development.
  - ● Proposition of application development file structure architecture - included in appendix.

**Pending Issues**

We currently have no pending issues as we have resolved ongoing issues by obtaining our VM from ETG. We also have not started prototype development, which will likely point out additional issues we are not yet aware of.

**Individual Contributions**

| Team Member | Individual Contribution | Hours this Week | Hours Cumulative |
|---|---|---|---|
| Nathan Thomas | VM registration, researched vue-springboot frameworks & proposed file structure architecture. | 5 | 49 |
| Mara Prochaska | Technical considerations artifacts and ethical area reflection, prototype planning | 5 | 41.5 |
| Eric Jorgensen | Lightning talk slides | 2.5 | 31 |
| Ryan Cook | Requested VM, continued learning javascript | 4.5 | 37 |

**Upcoming Plans**

Over the course of the next week we plan on continuing to work towards our goal of implementing user-login functionality into our application before semester-end. The next step is to figure out how we will orchestrate our application's development in granular detail. We understand that we are going to be using a GIT repository, but we still need to figure out how we plan on what the workflow will look like.

Another key upcoming action item will be to divide up prototype work between our team members, in order to stay ahead and aware of possible design issues. We hope to have a basic working prototype that can handle some sort of data input in order to have a short demo to show at our presentation to faculty this semester.

**Action Items**

| Team Member | Individual Goals | Estimated Hours |
|---|---|---|
| Nathan Thoms | Continue research of application development for vue-springboot full-stack frameworks | 6 |
| Mara Prochaska | Update website and begin prototype backend development | 6 |
| Eric Jorgensen | Work on upcoming assignments | 3 |
| Ryan Cook | Continue to learn VM and javascript | 5 |

**Advisor Meeting Summary**

In our advisor meeting this week, we discussed the progress we have made relating to ethical considerations and in-class artifacts. We also discussed upcoming assignments for our class and discussed an additional opportunity to write a research paper relating to the project.

# Appendix

## Application Development - *File Structure Proposed Architecture*

```
vue-springboot-app/
│
├── backend/                          # Spring Boot Backend
│   ├── src/
│   │   ├── main/
│   │   │   ├── java/
│   │   │   │   └── com/
│   │   │   │       └── example/
│   │   │   │           └── whereabout_app/
│   │   │   │               ├── controller/        # RESTful API controllers
│   │   │   │               │   └── AuthController.java
│   │   │   │               ├── model/        # Entity classes
│   │   │   │               │   └── User.java
│   │   │   │               ├── service/        # Business logic layer
│   │   │   │               │   └── AuthService.java
│   │   │   │               ├── security/        # Security configuration
│   │   │   │               │   ├── JwtTokenProvider.java
│   │   │   │               │   └── UserDetailsServiceImpl.java
│   │   │   │               ├── MyApplicationApplication.java
│   │   │   │               └── ...
│   │   │   └── resources/
│   │   │       ├── static/             # Static resources (e.g., index.html)
│   │   │       └── application.properties  # Spring Boot configuration
│   │   └── test/             # Backend tests
│   └── pom.xml               # Maven project configuration
│
├── frontend/             # Vue.js Frontend
│   ├── public/
│   │   ├── index.html          # Main HTML file
│   │   └── ...
│   ├── src/
│   │   ├── assets/             # Static assets (e.g., images)
│   │   ├── components/         # Vue.js components
│   │   │   ├── LoginForm.vue       # Login form component
│   │   │   └── ...
│   │   ├── views/             # Vue.js views/pages
│   │   │   ├── LoginPage.vue        # Login page view
│   │   │   └── ...
│   │   ├── App.vue              # Root Vue component
│   │   └── main.js             # Entry point for Vue application
│   ├── .env             # Environment variables
│   ├── .eslintrc.js             # ESLint configuration
│   ├── babel.config.js           # Babel configuration
│   ├── package.json             # Frontend dependencies and scripts
│   └── ...
│
└── README.md                # Project documentation
```