EE/CprE/SE 491 WEEKLY REPORT #3 - 3/6/23 – 3/24/23

Group number: **sd-may 23 50**

Project title: **Collaborative Surveillance of Large Geographic Area by Fleet of Drones**

Client &/Advisor: **Goce Trajcevski**

Team Members/Roles:

Rowan Collins - Backend and Testing
Joseph Edeker - UI/UX, Frontend Management
Jaden Forde - Client Interaction, Frontend and Backend
Thomas Glass - Backend with Security Emphasis
Jacob Houts - Backend Developer
Marcus Jakubowsky - Team Lead, Project Management and Backend

o **Weekly Summary**

Spring Boot was refactored for organization and relationship clarity. Spring Security was added for token authentication. Spring Boot CI/CD pipeline was created in GitLab to connect to ETG server (sdmay23-50.sd.ece.iastate.edu:8080/api-docs).

o **Past week accomplishments**

Rowan Collins - Added dependencies to our pom file which will allow our project to be tested. Added tests for two specific services.
Joseph Edeker - Consolidated frontend from various branches. Created a first draft for the homepage and updated the view and setup pages. Prepared UI screenshots for presentation.
Jaden Forde - Continued work on the Python system - added more necessary database calls, improved object models, defined workflow, edited Naive algorithm.
Thomas Glass - Continued work on front end systems. Establishing components to help select algorithms and data results.
Jacob Houts - Worked on run request processing within Spring Boot, including saving input data.
Marcus Jakubowsky - Refactored Spring Boot models for clairity and organization; tied new entity models together. Added Spring Security token authentication. Successfully setup GitLab CI/CD for Spring Boot. Added OpenAPI docs for Spring Boot.

o **Pending issues**

Rowan Collins - None
Joseph Edeker - Prepare frontend data so it is compatible with backend endpoints.
Jaden Forde - Test complete backend system using docker.
Thomas Glass - Establish more connections between frontend and backend.
Jacob Houts - None
Marcus Jakubowsky - Finish fixing file upload endpoint which was broken in the refactor. Provide direction for other /runrequest endpoint which also needs to be updated. Coordinate with frontend for the rest of the needed endpoints.

o **Individual contributions**

NAME	Individual Contributions	Hours this week	Hours cumulative
Rowan Collins	- Read further into better testing methodologies - Added the foundational dependencies to allow testing in our project - Added testing coverage to AlgorithimFileService and LoginService using Mockito and JUnit	12	34
Joseph Edeker	- Consolidated frontend code from various branches - Created initial draft for Home page - Updated UI for View & Setup pages - Communication on UI changes with client	18	43
Jaden Forde	- Defined Python functional workflow - Fleshed out database calls and models - Assisted with entity model refactor, implemented changes on Python	14	39
Thomas Glass	- Established frontend connections - Work on various frontend components - Research into frontend components	14	36

| Jacob Houts | - Developed run request input data endpoints
- Worked on saving data to files and database | 12 | 34 |
| Marcus Jakubowsky | - Added OpenAPI docs for Spring Boot.
- Updated Spring Boot Dockerfile to have a multi-stage build.
- Refactored entity models.
- Refactored relationships and base endpoints.
- Created CI/CD pipeline for Spring Boot.
- Connected to ETG server and deployed Spring Boot (visible at sdmay23-50.ece.iastate.edu:8080/api-docs).
- Added Spring Security token authentication. | 23 | 54 |

o **Comments and extended discussion**

We are close to round trip functionality, at which point our application is near completion.

o **Plans for the upcoming week**

Rowan Collins - Continue working on broadening testing coverage along with working alongside Jacob and Marcus on backend features and fixes.
Joseph Edeker - Integrate frontend UI with Spring Boot endpoints. Implement feedback provided by the client on the view page.
Jaden Forde - Test backend round trip functionality and get python to work - (receive request, store input data, send to queue, retrieve from queue, run simulation, store result data).
Thomas Glass - Continue development of frontend components. Work to establish more connections between the front and back end.
Jacob Houts - Continue work on run request parsing and processing.
Marcus Jakubowsky - Coordinate remainder of Spring Boot endpoints. Assist with /runrequest endpoint. Once Python and React components are stable, will incorporate them into Docker and CI/CD.

o **Summary of weekly advisor meeting**

Did not have meet with our advisor. Was messaged by Prabin Giri (grad student) about screenshots/mock ups for our webpages.