
SE 492 Bi-Weekly Report 03

Start Date - End Date:

Group Number: 19

Project Title: Canvas LTI Student Climate Dashboard

Client: Henry Duwe

Advisor: Nick Fila

Bi-Weekly Summary:

The overall goal for this increment was to,

- 1) Create more endpoints and custom objects to map the Canvas endpoints to our application
- 2) As well as finishing dockerizing a lot of the applications into microservices.
- 3) A lot more data discussion was had around what we need for the application and how we will be filtering in the backend and the data sets we want to return.
- 4) Communicated between the backend and the frontend what would be needed for plotting a journey map and worked on a skeleton of the graph itself.

Past Week Accomplishments:

1. *UI Team (Kira, Emma)* -

- Sent the backend an outline of how information called for to get resonance for graph
- Created a skeleton of the student graph with room for expansion
- Modified dependencies for the user application webserver to improve routing and request handling
- Refactored user application code
- Implemented main page design, applied feedback from client and project advisor
- Ideated potential designs and use-cases for graph detailed view

2. *Canvas API Team (Andrew, Emma)* -

- Expansion of Swagger documentation
- New endpoints for data retrieval
- Research on nesting multiple endpoints for data retrieval
- Deserializing and Creating new object types to map to canvas API
- Helped some team members with endpoints and swagger tutorial

3. **Data Analysis Team (Zach, Josh) -**

- Implemented Resonance Scoring Microservice
- Integrated Individual Scoring Modules (Sentiment, Engagement, Achievement) with Resonance Microservice
- Debugged K8s Service FQDN and Protobufs Error
- Began Implementing Clustering Algorithm
- Designed Sequence of steps from Canvas API to Frontend Graph of Resonance Scoring

Pending Issues:

- Need to make significant progress in the next iteration to be able to keep from running into a time crunch to finish the project on time

Individual Contribution:

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this Increment</u>	<u>HOURS Cumulative</u>
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<p>Andrew Dort</p>	<ul style="list-style-type: none"> - Expansion of Swagger documentation - New endpoints for data retrieval - Research on nesting multiple endpoints for data retrieval - Deserializing and Creating new object types to map to canvas API - Helped some team members with endpoints and swagger tutorial <p>Met with team members 1x each week to work on various tasks</p>	<p>5</p>	<p>50</p>
<p>Kira (Ashley) Pierce</p>	<ul style="list-style-type: none"> - Created side build of the student graph using Chart.js, still needs to be integrated into the main webpage - Met with Emma about data collection and communication - Researched accessibility accommodations in Chart.js - Early work on screen reader compatibility for Journey Map 	<p>20</p>	<p>40</p>
<p>Emma Paskey</p>	<ul style="list-style-type: none"> - Worked with bootstrap to implement the frontend design for our main page - Removed outdated javascript files, restructured the frontend application's file hierarchy, updated the Dockerfile, etc. - Implemented and configured an express 	<p>17</p>	<p>69</p>

	<ul style="list-style-type: none"> - webserver - Created page design & behavior ideas for a “graph detail view” to discuss and generate feedback from - Met with Kira to create plan for service communications (between Frontend application and Data Analysis service) 		
Zachary Borchard	<ul style="list-style-type: none"> - Designed (helped; two-person job) Sequence of steps from Canvas API to Frontend Graph of Resonance Scoring - Worked on getting Jenkins integrated with git lab for CI/CD and build automation - Researched possible solutions for secure storage of user data on the assigned virtual machine 	12	50
Joshua Slagle	<ul style="list-style-type: none"> - Implemented Resonance Scoring Microservice - Integrated Individual Scoring Modules (Sentiment, Engagement, Achievement) with Resonance Microservice - Debugged K8s Service FQDN and Protobufs Error - Began Implementing Clustering Algorithm - Designed (helped; two-person job) Sequence of steps from Canvas API to Frontend Graph of Resonance Scoring 	14	75

Comments and Extended Discussion:

- Backend team needs to work closely with the data team to figure out if the endpoints look good. Lots of filtering and routing that needs to be closely discussed.

Plans for the Upcoming Week:

Wrapper Tasks:

- Map more custom objects based off team discussions
- Create more tests for our infrastructure
- Refactor messy code
- Have team help out with some tasks.
- Route the endpoints to different pages on the application

Misc. tasks:

- More docker learning
- Mapping out a lot more of the work that needs to be done
- Really need to start using Trello for work tracking.

Frontend tasks:

- More cleanup of the graph
- Integrating the graph into the main project
- More connectivity with backend
- Dig into additional behaviors for the front-end, receive feedback from advisor & client, and implement.

Data Analysis Tasks:

- Finish implementing the Clustering Algorithm
- Integrate Clustering Algorithm with Resonance Scores
- Implement API for Frontend Graph
- Integrate with Canvas API Backend
- Design Function Pipeline Scheme
- Create Database for User Data Storage

- Filters Database
- Username / Passkey (Auth) Database
- Canvas Token
- Assignment Naming Scheme to Group Assignment Database
- Calculate Average Resonance and Weighing
- Finalize Jenkins Building