
SE 492 Bi-Weekly Report 02

Start Date - End Date: Sept 14th - Sept 27th

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) get a concrete minimal viable product (MVP) defined in clear, concise steps from our client; 2) implement the baseline of our application from the MVP defined goals; and 3) continue to build up our infrastructure for hosting our application. All of these tasks have been completed with no current changes to the design of our project.

Past Week Accomplishments:

1. ***UI Team (Kira, Emma)*** -
 - a. Display information from the API on the webpage
 - b. Initial frontend containerization complete
 - c. Fixed cross origin error with requests
 - d. Created new UI design for main page
 - e. Explored vis js and other libraries/frameworks for graphing resonance
 - i. Resonance score
 - ii. Grouping
 - iii. Other data
2. ***Canvas API Team (Andrew, Emma)*** -
 - a. Improved containerization of the Canvas wrapper
 - b. Investigated the additional requirements to allow https requests
 - c. Endpoints for grades and enrollments
 - d. Documentation using swagger
 - e. Ability to call endpoints from swagger ui locally (no need for 3rd party http tool)
 - f. Created a test infrastructure and did a demo on unit tests and cubit
3. ***Data Analysis Team (Zach, Josh)*** -
 - a. Built up data analysis modules for calculating scores for:
 - i. Student Achievement
 - ii. Student Engagement

- iii. Student Sentiment
- iv. Overall Student Resonance with course
- b. Decided on final system for relating student data to resonance and displaying into a journeymap form
- c. Containerized and Deployed K8s pods of containers and networked together the applications with K8s service objects.
- d. Set up Infrastructure to run our Application on ECE VM Server

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
- Need to come up with a reliable way to get text data back from quizzes

Individual Contribution:

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this Increment</u>	<u>HOURS Cumulative</u>
Andrew Dort	<ul style="list-style-type: none"> ● created new endpoints for api ● Set up swagger ui and requests ● Assisted with yaml file for pipelining tool ● Test infrastructure for c# 	10	45
Kira (Ashley) Pierce	<ul style="list-style-type: none"> ● Learned how to get Vue up and running ● Worked on displaying data 	10	20
Emma Paskey	<ul style="list-style-type: none"> ● Fixed cross origin request issues ● Gathered resources for how to handle a CORS policy with https ● Created a Dockerfile for the webapp and tested behaviors ● Improved the Dockerfile for the Canvas API wrapper ● Sketch for new UI, sought feedback ● Learned the basics of nodejs 	24	42

	projects and using npm; set up basic webserver for the front-end		
Zachary Borchard	<ul style="list-style-type: none"> Helped create final idea for how to display data into a resonance journeymap Created engagement calculator in engagement module Helped to create environments for concourse/jenkins/gitlab for future CI/CD work 	16	38
Joshua Slagle	<ul style="list-style-type: none"> Helped create final idea for how to display data into a resonance journeymap Created sentiment calculator in sentiment module Created achievement calculator in achievement module Set up K8s cluster to run application Set up Argocd to automatically run application in cluster Set up Jenkins to run in cluster 	34	61

Comments and Extended Discussion:

Weekly meeting time with advisors has been set up to receive regular feedback for the continued development of the project

Plans for the Upcoming Week:

Wrapper Tasks:

- Map out the data and get it working with the front end (currently trying to figure out the objects and what to tie to them for certain endpoints)
- Create more tests around actual logic
- Get swagger response portion to show what the response will look like (auto generation gets iffy)

Misc. tasks:

- Learn about docker compose and orchestrate containers

Frontend tasks:

- Utilize feedback on resonance graphing tool and graph page UX design to make any important changes
- Create MVP for initial designs and create designs for additional pages
- Implement graph page design
- Stretch goal: interact with the graph dynamically

Data Analysis Tasks:

- Create cluster groupings based on similar students' resonance at any given point in time. This will be done in 3D space based upon our Sentiment, Engagement, and Achievement categories.
- Get full CI/CD pipeline up and running
- Start Brainstorming Questionnaire format and associating students with categories (Majors, Learning Styles, Motivators, Thinking Styles, etc)