

CYBE / SE 491 Weekly Report

April 16 - April 22, 2025

sddec25-10

SmartClass: Transforming Engagement in Large Classrooms with Interactive Learning

Faculty Advisor / Client: Md Maruf Ahamed

Team Members:

- Josh Dwight - Backend/Frontend
- Logan Pfantz - Frontend/Backend
- Matthew Gudenkauf - Frontend
- Michael Becker - Frontend /Backend
- Michael Geltz - Backend
- Ryan Lin - Frontend/Backend

Summary of Work:

This week was all about adding functionality to SmartClass. New features have been implemented, including having multiple chatrooms for each class, student and teacher views, class views, and some class management. Endpoints for the backend have expanded to incorporate all these features. Tests have also begun to be written for the backend.

Work Period Accomplishments:

Josh Dwight:

- Implemented tests for the backend using MockMVC
 - These tests are made to test endpoint functionality
 - Not every endpoint has a test yet
 - Testing is being done on a separate branch, so new tests will need to be made for endpoints added since testing began

Logan Pfantz:

- Added functionality to Live Classes
 - Added tables in the backend for storing multiple conversations
 - Added classes in the backend for controlling and handling conversations
 - Updated frontend to conform to backend updates

Matthew Gudenkauf:

- Added functions to Join/Create classes
- Fetch and load class student/professor is in when dashboard loads
- Added student class views
 - Announcements
 - Student - Displays students
 - Questions
 - Materials
 - Settings - Unenroll

gude's Dashboard

Join a Class

Math

Class Id: 2

View Class

Stats 330

Class Id: 3

View Class

stats330

Class Id: 4

View Class

test

Math

Not currently tracked

Students

Materials

Create Question

Announcements

Questions

Students

Materials

Settings

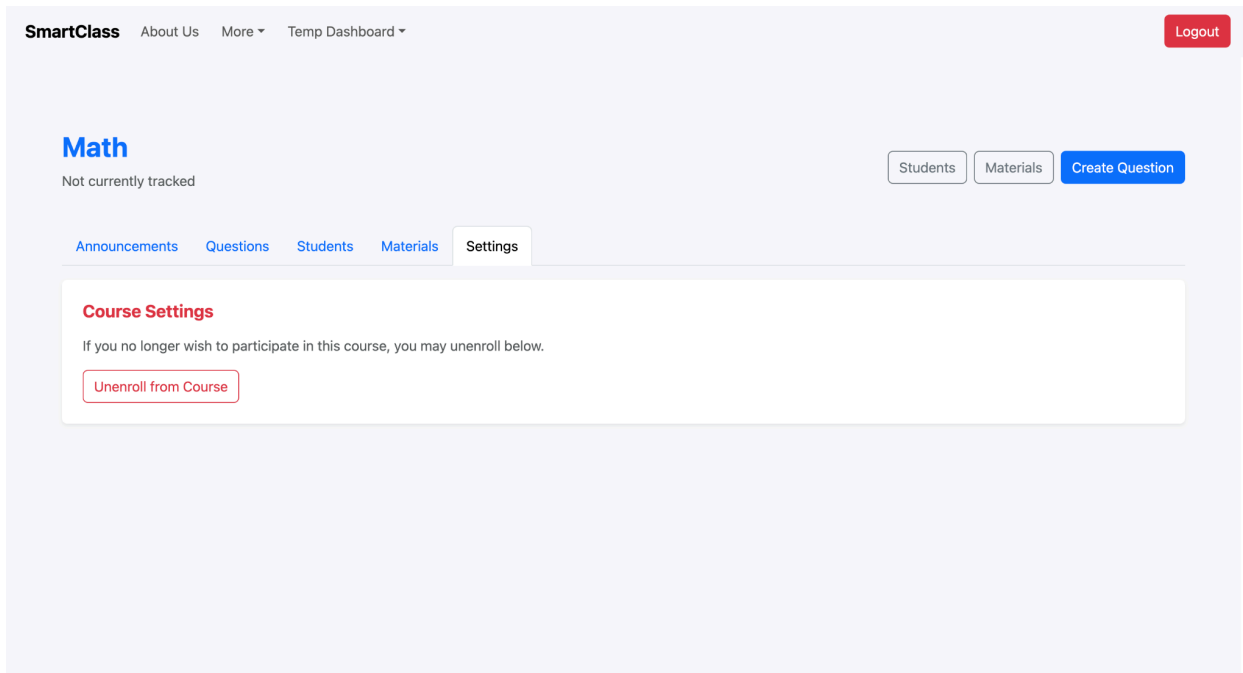
Enrolled Students

mgud1
mattgude@iastate.edu

STUDENT

testuser
test@test.com

STUDENT



Michael Becker:

- Class Materials
 - Adding functionality to the course management system on the teacher side
 - Will allow for materials and lectures to be uploaded as well as viewed within web application
 - Allow teachers to construct their class page
- More research on how to properly sanitize inputs from users and specifically students

Michael Geltz:

- Added more robust features to courses
 - Creation timestamp
 - Variables tracking quantity of different roles and total
 - Added un-enroll endpoint
 - Added DTO and new repository functionality for course un-enrollment
 - Added work around for infinite recursion for retrieving all information on a course
 - Two new DTOs and a builder service
 - Added endpoint and new DTO for getting all enrollments for a user
 - Added dynamic updating to variables tracking quantity of certain roles and the total number of users in a course

Ryan Lin:

- Added footer class
- Corrected account creation/login to take user to proper dashboard based on role
- Got some backend code I implemented last week to communicate with frontend

Plans for Coming Week + Action Items:

Josh Dwight:

- Complete adding tests and implement new tests for new endpoints

Logan Pfantz:

- Incorporate chat features into student and teacher dashboards

Matthew Gudenkauf:

- Add live chat to each class dynamically
- Need to change view class button color (Figure 1)

Michael Becker:

-

Michael Geltz:

- Work with frontend team to see what they need.

Ryan Lin:

- Finish backend and frontend connections
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Pending Issues:

Josh Dwight:

-

Logan Pfantz:

-

Matthew Gudenkauf:

-

Michael Becker:

- Need to push the code I have been working on

Michael Geltz:

- N/A

Ryan Lin:

- Finish up code and push
-

Individual Contributions:

Team Member	Contribution	Weekly Hours	Total Hours
Josh Dwight	Added testing to the backend with MockMVC	6	26
Logan Pfantz	Created multiple chat rooms for classes	6	33
Matthew Gudenkauf	Implemented join/create course functionality	7	29

	Dynamically displays courses for each user Made a general course page that changes for each course		
Michael Becker	Added more course features for inputting class materials and being able to view them (having trouble figuring out how to implement that within the web application) and currently working on what I would have to do to be able to download pdfs and different file types.	5	25
Michael Geltz	Added more course robustness Fixed recursion issues/provided framework to fix future recursion issues	7	28
Ryan Lin	Added footer class Corrected account creation/login to take user to proper dashboard based on role Got some backend code I implemented last week to communicate with frontend	6	26