
EE/CprE/SE 492 WEEKLY REPORT 2

Date: 09/18/25

Group Number: sddec25-10

Project title: SmartClass: Interactive Learning

Client &/Advisor: Md Maruf Ahamed

Team Members/Role:

- **Josh Dwight - Backend/Security**
- **Michael Geltz - Backend/System Admin**
- **Michael Becker - Frontend/Security**
- **Matt Gudenkauf - Frontend**
- **Logan Pfantz - Frontend & Advisor Liaison**
- **Ryan Lin - Frontend**

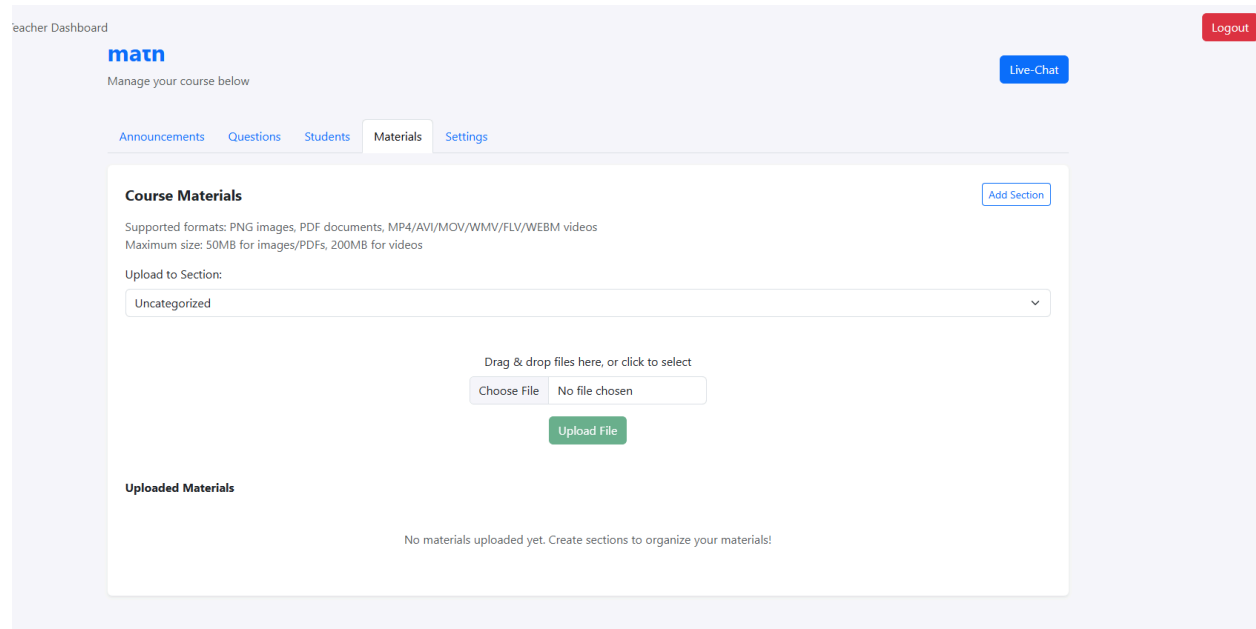
o Weekly Summary

There was a focus on adding a few new features, namely: create a quiz, announcements, and full-stack authentication changes. Backend work was done to support these new features as well as allow for connections to future features. An attempt was made to change to a more secure protocol, HTTPS, but was altered after issues prevented it from being properly implemented.

o Past week's accomplishments

- **Josh Dwight:** Initially, I tried implementing HTTPS on our website to give users a more secure browsing experience. However, we can't get the website verified by certbot to get an SSL certificate. There were also issues with CORS and Mixed Active Content. I ended up just having our website run on HTTP on nginx instead of the react development port. I also made some changes to our github actions to accommodate nginx. This will make changing to HTTPS easier in the future once some issues are resolved.
- **Michael Geltz:** I wrote backend code for the class announcement system before falling into an authentication rabbit hole. Currently working on and researching how to properly handle user sessions and how to integrate that into our current code base.

- Michael Becker: I wrote frontend and backend endpoints to be able to upload file types from the teacher perspective. I also thought it would be a good idea to categorize the materials being uploaded. So far I have tested PDF, PNG and MP4. The category feature works and allows the teachers to create a “section” and then post materials to that specific section. Files are stored as binary data and the metadata includes the filename, file type, size, upload date, course id and if they are applied to a section they also get that section id.



- Matt Gudenkauf: While waiting on some new backend code to be pushed to the project I switched the login/registration page to be a simple popout rather than a new page. Implemented the forums on the professors side rather than it being only on the student view. Currently I’m working on adding endpoints from the frontend to make announcements and class material start working.
- Logan Pfantz:
 - Started work on creating the quiz creation page. Began by sketching out the screen and writing the functions required, shown in the figure below:

Create a Quiz

Page design:

Quiz #1 ✎ ✖

Click to add new Question... +

⇓

Q1: What is 2+2? ✎ ✖
 Q2: Types in C:
 Select all that apply: ✎
 int ✎
 String ✎
 char[] ✎

Click to add new Question... +

icons:
✎ edit ✖ delete

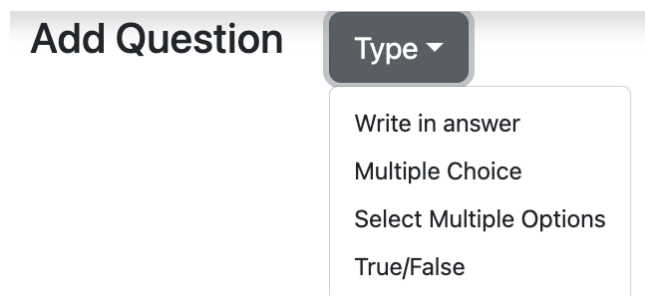
- Create Quiz:

- * Edit title of quiz
- * Add questions

- After adding 2 questions

- * Question text is editable
- * Answer type is changeable
- * Answer text is editable
- * New questions appear below old ones
- * Add new question button stays at bottom
- * Delete entire question

- Coded the webpage by using a dynamic page builder. Add a new question by clicking on an option in the dropdown menu. There are currently 4 types of questions a user can add: written, multiple choice, select multiple answers, and true/false. The dropdown menu is shown in figure 2 below:



- Clicking write in answer creates the module for the node where the user can add the question text in a box. Clicking the "X" deletes the module and removes it from the page. Module created is shown in the figure below:

×

Question:

In your words, what is software engineering?

- Ryan Lin: Implement backend and frontend functionality to allow users to upload and attach images to forum posts. This includes creating the API endpoints for image upload and retrieval, handling file storage, and inserting the image into the post. Also researched and experimented with adding test code.
- o **Pending issues** (If applicable: Were there any unexpected complications? Please elaborate.)
- Josh Dwight: I might look into HTTPS more to see if there are fixes to the issues we had when it was enabled.
 - Michael Geltz:
 - Final touches on announcements (After finishing authentication changes)
 - Implement full-stack changes for authentication
 - Michael Becker:
 - I want to change my implementation to encrypt the files and materials.
 - Matt Gudenkauf: View material (student side)
 - Logan Pfantz:
 - Create access point to the create quiz page
 - Reword things for clarity
 - Ryan Lin:
 - Need to add more functionality to the images such as adding multiple, adding it to replies, and a preview option.
 - Everyone: N/A

Individual contributions (Creating this section is optional, but it is **Required to include the “Hours Worked for the Week” and their “Total Cumulative Hours” for the project for each member somewhere relevant in your report. Your individual weekly hours should be at a minimum of 6-8 hours for this course. So please manage your time well. Also, ensure that individual contributions support your claim to the weekly hours. Be honest with the reports.**)

| <u>NAME</u> | <u>Individual Contributions</u> (Quick list of contributions. This should be short.) | <u>Hours this week</u> | <u>HOURS cumulative</u> |
|----------------|---|------------------------|-------------------------|
| Josh Dwight | Implemented HTTPS before reverting it. Systems are in place if we want to use it. Also moved the website to nginx so we can use relative paths for our API calls if we want to later. Changed some server config files as well. | 7 | 33 + 7 = 40 |
| Michael Geltz | Implemented most of the backend announcement system. Researching authentication changes. Began implementing full-stack authentication changes. | 8 | 35 + 8 = 43 |
| Michael Becker | | 8 | 32 + 8 = 40 |
| Matt Gudenkauf | New login/register UI Implementing forums on professor side Researching ways to record live lecture | 6 | 36 + 6 = 42 |
| Logan Pfantz | Implemented Create a Quiz page - Allow creation of questions - 4 question types | 7 | 40 + 7 = 47 |
| Ryan Lin | Implemented image inserts into forums Research/experimenting with test code | 8 | 33 + 8 = 41 |

o **Plans for the upcoming week** (Please describe duties for the upcoming week for each member. What is(are) the task(s)?, Who will contribute to it? Be as concise as possible.)

- Josh Dwight: Look into fixing HTTPS issues and look into Globus once Michael finishes the authentication changes.
- Michael Geltz: Finish full-stack authentication change, then finish backend announcement system.
- Michael Becker: I want to discuss more with the group but right now I'm refining the method of uploading materials and maybe creating a way to view the materials while staying on the same screen. I also need to fix some java dependencies.
- Matt Gudenkauf: Add a way to view materials on the student side
- Logan Pfantz: Work on another new feature in the issues page.
- Ryan Lin: Add more functionality to attaching images. Start adding test code.

o **Summary of weekly advisor meeting** (If applicable/optional)

N/A