SE 491 Weekly Report #2

01/28/24 - 02/10/24
Group 46

Project
Learning Management System - SkillMagnet

Client / Advisor
Prof. Judith Islam

Backend Engineers
Nicholas Erickson
Sam DeFrancisco
Brayton Rude

Frontend Engineers
Jennifer Robles
Deepika Vempati
Nikhil Kuricheti

Weekly Summary
The goal for this first week was to get the ball rolling with the project. We have a base app deployed but we wanted to start to breathe some life into it. We started to get the foundational frontend components in place. We also started to add DB models and endpoints for courses, videos, and users.

Past Week Accomplishments
- Video Upload / Streaming Investigation - Nick
  - Investigated further into uploading videos directly from the client to our AWS S3 buckets. Discovered that AWS has a beautiful Javascript SDK that handles all the connection stuff for sending large files over the network which is a HUGE sigh of relief.
  - Created AWS IAM policies and a "S3 Video Upload User" role for use by the client. Exposed S3 bucket to be accessible from our client with the new role credentials.
  - **Giant Win** (i.e. my biggest worry about this whole project): Successfully streamed video from our S3 bucket directly to our client. Had to override the AWS SDK request headers to retrieve the video in a streamable format. Video loads directly into a React <video> tag and all the playback controls work as expected. *Chef kiss.*
  - WIP of cleaning up code to make it very modular for the FE team to use once we get to that state.
- Navbar / Frontend Designs - Jennifer
  - Created navbar component and empty site pages
  - Website name leads back to home page
  - Buttons for marketplace/creator studio/my courses
  - Created user flow
  - Documented current pages and components needed
- Course Model/Controller/Repository - Sam
  - Implemented Course Entity model for Spring Boot
  - Implemented Course controller (api) for all basic crud operations as well as some custom functionality
  - Implemented Course Repository to hook up to local database, connection will be hooked up to production once merged
- Course Card / Frontend Designs - Deepika
  - Created the design of the course card component with details of the course name and instructor name.
  - Implemented a simple button design to enroll in the course
  - Designed the course component to appear nicely on the course marketplace page.

Individual Contributions

Team Member	Contribution	Bi-Weekly Hours	Total Hours
Nicholas Erickson	Video upload/streaming	16	16
Jennifer Robles	Navbar components/design documentation	8	14
Sam DeFrancisco	Course Endpoints and models on backend	8	8
Deepika Vempati	Course card component design implementation.	8	8
Brayton Rude	Moral Support	1	1
Nikhil Kuricheti	Moral Support	1	1

Plans For Coming Week
- Explore video to lesson to course mapping - Nick/Sam
  - Figure out the best approach to adding Lessons to Courses.
  - Determine a good pattern to reliably link video urls from the FE to our Lesson model
    - This is an issue as creating a Lesson will be separate from the AWS communication involved to upload a video.
- Create homepage/creator studio - Jennifer
  - Have navbar static throughout all pages
  - Start implementation of frontend design of course marketplace and homepage
- Create a simple sign-up page - Deepika
  - Design a sign-up page on Figma.
  - Implement the sign-up page asking the user for details like their name and email address.
  - Figure out how to send that information to the server database.