Team 37 - UniFreelancer Academy

CS Capstone - Progress Report: Sprint 3
Date: 11/9/2025
Team Members: Aidan Caughey, Aiden McCoy, Baron Baker, Daniel Molina, Nafizur Rahman
Project Partner: Alina Padilla-Miller - UniFreelancer

Summary:

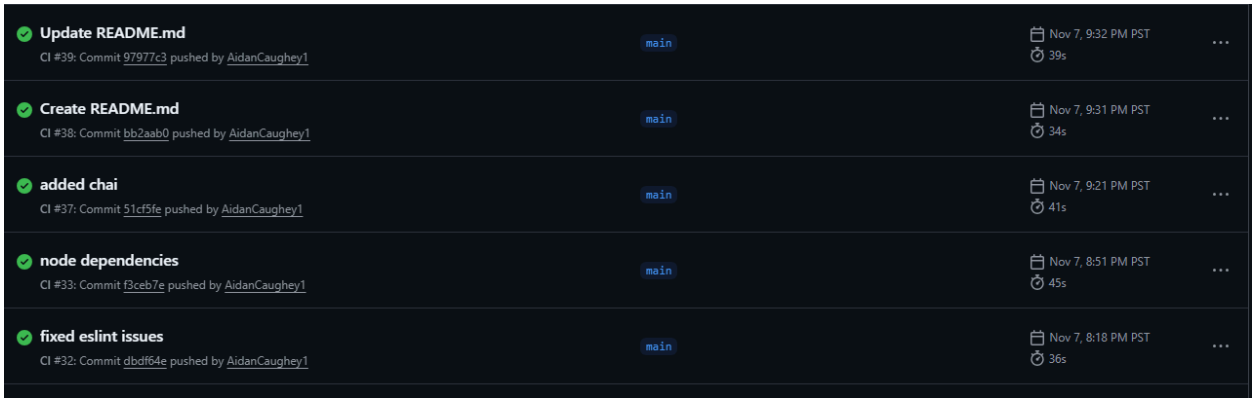
- Implemented initial frontend prototype with HTML, CSS & REACT
- Implemented dummy backend with Javascript
- CI Pipeline implemented via Github Actions
- Database plan discussed with project partner, plan to move forward with MongoDB.
- Automated testing implemented via Github Actions and using Mocha & Chai

Progress vs. Plan Table:

Planned Item	Status	Links	Notes/Blockers	Plan Change
Implement initial frontend prototype	Done	Frontend PR	Built with REACT, HTML, CSS, and JS	None
Create initial backend prototype	Done	Backend PR	Supports simulated data interactions	None
Configured CI/CD Pipeline	Done	CI PR	Includes Mocha/Chai automated tests	None
Conduct database planning with partner	Done	None	Chose MongoDB as database solution. Now implementing initial database schema.	None

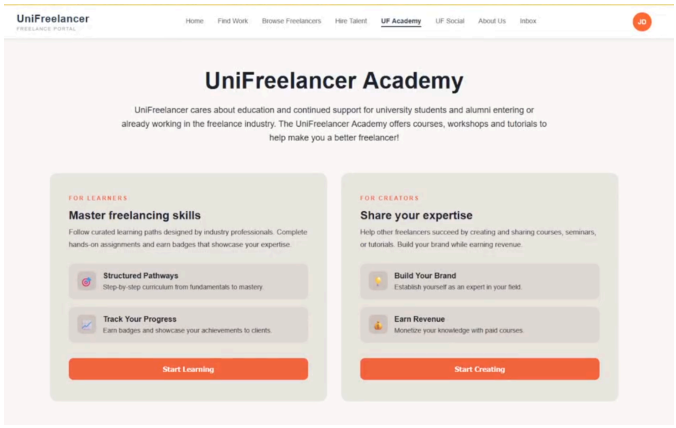
Evidence of Working Software:

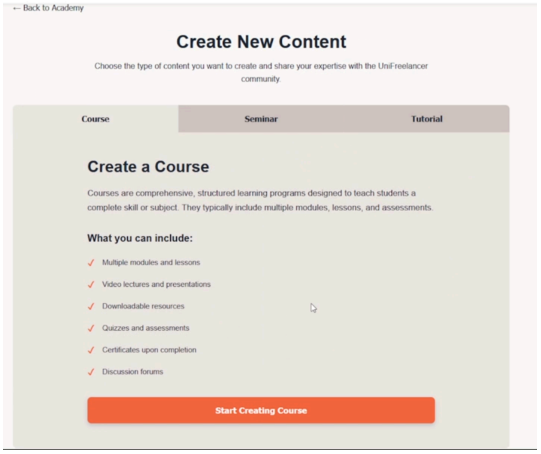
Github: https://github.com/AidanCaughey1/CS46X-UniFreelancer
We do not have a deploy link yet, we are working on it locally.
CI Run: https://github.com/AidanCaughey1/CS46X-UniFreelancer/actions/runs/19188549549

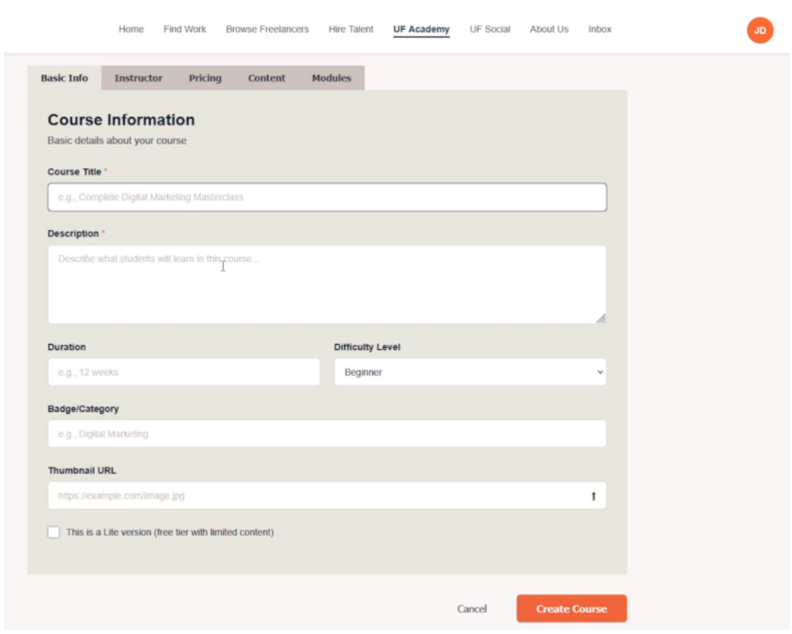


Working Demo:

Some screenshots from our demo, full demo can be seen in the video for our skeleton prototype.







Risks & Quality:

Risk	Owner	Status / Mitigation
Integration complexity with existing UniFreelancer site	Aiden McCoy	Continued independent deployment; plan to merge later
Communication between multiple components / APIs	Aidan Caughey	Conducting integration tests and defining consistent API contracts
Database schema evolution with MongoDB	Baron Baker	Documenting schema structure early to avoid migration issues

Bug Count: Minimal
Tests: Automated Mocha/Chai suite running on every push to main
Trend: CI stable with successful test runs

Next Goals:

- Finish implementing the seminar and tutorial pages. (REQ-001)
- Update the CSS of the learning hub to match the rest of the website. (REQ-002)
- Add more tests to automate the testing process of each part of the project. (REQ-020)
- Implement mongoDB fully into UniFreelancerAcademy (REQ-019)

Team Process Reflection:

This sprint marked our transition from design to implementation. We successfully delivered working code and an operational CI pipeline. Coordinating frontend, backend, and database work was challenging, but effective communication and GitHub workflow discipline improved collaboration. For Sprint 4, we plan to focus on tighter integration between services, implementing our initial database schema, and incremental feature testing to ensure early issue detection.

Individual Contributions:

Aidan Caughey:

- Documentation for all assignments during this sprint, including Team Charter & Working Agreement, Walking Prototype and this progress report.
- Outlined, proofread and submitted all assignments.
- Implemented CI pipeline via Github Actions.
- Added automated tests, including the happy path test, with Mocha & Chai and tested via Github Actions.
- Added branch protections to the Github repository.

Aiden McCoy:

- Implemented Jest suite for the dummy-backend, covering all core CRUD operations such as (GET, POST, PUT, DELETE) for the courses route.
- Added validation tests to verify that the routes we have implemented return an accurate status.
- Researched using shared authentication cookies to enable single sign-on across the decoupled Academy and Marketplace apps.
- Began implementing shared authentication with cookies and JWTs for single sign-on across pages, but it's not yet complete.

Baron Baker:

- Researched for the best database available that fits our project scope.
- Created initial database connection with MongoDB
- Configured the MongoDB database and cluster
- Implemented retaining courses through database implementation. Now it will show all courses already in the database
- Added backend requirements for MongoDB assimilation

Daniel Molina:

- Experimented with different setups to explore different development and modern tooling options.
- Updated the Courses Page CSS to match the Academy page styling for a unified look.
- Added Instructor and Pricing sections to the Create New Course form.
- Updated Course Cards to correctly display paid vs. free course pricing.
- Improved filter sidebar layout.

Nafizur Rahman:

- Designed the main academy landing page
- Designed the content creation page
- Designed the course creation page
- Designed the learning overview page
- Created a dummy backend based on JSON
- Decided on centralizing design details like palette and fonts