Moiz Mohammed & Asad Mirza
Prof. Purva Gawde
CSCB20
April 2, 2025

Assignment 3 Report

For this project, we successfully implemented several key features, such as authentication, mark's page, and an anonymous feedback page. Our authentication feature allows students and instructors to log in securely. Once logged in, students could access a dedicated marks page, where they could view their grades, and if necessary, request a remark for any coursework. This feature was accompanied by an instructor-side system where instructors could review, accept, or deny remark requests. If an instructor approved a request, they could update the student's mark accordingly. Furthermore, we also developed an anonymous feedback page. This allowed students to submit feedback for any instructor while ensuring their responses remained anonymous. Instructors could then review this feedback, helping them gain insight into their teaching methods and areas for improvement.

While implementing these features, we encountered some challenges, particularly with the marks page. The most difficult aspect was ensuring that content updates were handled dynamically using JavaScript rather than requiring full-page reloads. We wanted the interface to be seamless, meaning that when a student submitted a remark request or when an instructor updated a grade, the changes would be reflected instantly without needing to refresh the page. To achieve this, we had to handle form submissions using AJAX, which was initially challenging as it required preventing the default form behavior and properly processing the request on the backend. Once we understood how to serialize and send the data correctly, we were able to implement a smooth and responsive remark request system.

The development process was structured around our previous Assignment 2, which was a static course website without any backend functionality. We started by integrating Flask into the project, with Moiz's primary focus being on backend integration and student-related features, while Asad worked on the authentication system and database schema. Once the foundational structure was in place, we divided the remaining work: Moiz took responsibility for all student-side functionalities, including the marks page, remark requests, and the feedback submission system, whereas Asad worked on instructor-related functionalities, such as handling remark requests, updating marks, and displaying student feedback.

In addition to the core features, we also implemented some extra functionalities that improved the user experience. One of these was dynamic page updates using JavaScript, which made interactions such as remark requests and feedback submissions feel more responsive. Another significant enhancement was the dark mode functionality, which we implemented using

JavaScript to allow users to toggle between light and dark themes. This was a small but meaningful addition that improved accessibility and customization for users.

Overall, while we faced some challenges, especially with handling dynamic content updates, the project was a great learning experience. It allowed us to refine our understanding of Flask, JavaScript, AJAX, and database interactions while also improving our ability to collaborate effectively on a full-stack web application. The final product not only met the initial requirements but also included additional features that enhanced usability and functionality.