Changes Impact Report

ECE 651 Team #6

Architecture

The architecture of this project has been changed from a client/server architecture for the main part with two apps for course management and user management respectively to an Android application (communicate with the server) for students to use, a PC application (communicate with the server) for faculty to use and a independent administration PC application for user and course management.

- The new architecture may offer better scalability, as application for faculty and students can be optimized independently to handle varying loads and requirements..

- With dedicated applications for different user roles, performance can be optimized for each platform, potentially leading to faster response times and better overall performance. It could also allow for more focused and targeted updates for each application.

- The administration application, integrating functionalities for user management and course management, facilitates administrators in efficiently managing system data comprehensively.

Graphical User Interfaces (GUI)

Administration APP & Faculty APP

Previously, the user and course management are text-based applications, but now GUI is implemented using Javafx.

- The introduction of GUI will significantly improve the user experience by providing a more visually appealing and intuitive interface.

- GUI-based applications tend to be more accessible to a wider range of users, including those who may not be proficient in using text-based interfaces. This change could increas user satisfaction.

- With a more user-friendly interface, administrators and faculty may be able to perform tasks more efficiently, leading to increased productivity. Features such as context menus and visual representations of data can streamline workflow processes.

Student APP

Previously, the application for students to use is text-based application, but now it is an Android application.

- The transition to an Android application means that students can now access the application from their mobile devices, providing them with increased flexibility and mobility.

- Android applications typically offer a more intuitive and user-friendly interface compared to text-based applications.

Report

Previously, the report generated for each student is sent to their email address. But now, students can access to any of their course attendance report on the Android APP directly.

- Accessing attendance reports through the Android app offers students a convenient and centralized platform for managing their academic records. They no longer need to search through their email inbox for reports, streamlining the process and saving time.

- Providing access to attendance reports through the Android app may enhance data security by reducing reliance on email communication, which can be susceptible to security breaches.

- By eliminating the need to send individual reports via email, the new system may improve efficiency. This can reduce administrative overhead and potential delays associated with email delivery.