Faculty of Engineering and Applied Science

SOFE 3490U Software Project Management

Lab #2

Group 12

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Topic Area: Class Application

Product description:

Whether it's making the most of your university experience, or trying to survive the daily challenges of being a student, our team created an application with students, professors, staff, and alumni in mind. A one stop info shop of what Ontario Tech U, making sure everyone is kept updated with the latest events.
With Ontario Tech U's rebranding and the changes that come along with it, our application attempts to improve data access, and connectivity within the OTU community. We would also like to address old issues such as privacy – MyCampus being a non-secure website upon login, traffic control – everyone should be able to access university pages at all times specially when final grades are out, and transparency – students should be made aware of their benefits and choices (e.g. opting out of insurance).

Functionalities of the app may vary to its users. For example, only system administrators are able to access and edit secure data. Students have access to the app's main page where they are able to see their courses, announcements, private messages, important dates, etc. and alumni users will see newsletter from the university, recent postings by their schoolmates, private messages, and directly contacting school admin. Students will also be able to keep track of their courses list, credits and graduation.

By providing a platform for students, alumni, professors and university staff, our application aims to provide a better system for all the users. Students find helpful links faster, communicate with others quicker, and access data more securely. Alumni are kept up-to date and connected with old schoolmates. Management can track students and alumni development, hosts mentorship events by connecting students with alumni, and overall oversee a development with the use of the app. The overall goal of the application is to keep the university community connected and updated in the latest news, events and give users networking opportunities.

Objectives:

1. Secure login, registration and keep personal information safe.
2. It should have a seamless user interface for both new and experienced users.
3. For the initial prototype, the app is able to handle at least 8,000 users smoothly.
4. Users should be able to access their accounts at all times
5. Implement real-time secure live chat between users.
6. Supports social integration, users may link third-party applications like LinkedIn, Twitter, Instagram, etc.
7. Offers support such as FAQ's.

Measures of Success:

1. Beta version must be tested by *date*
2. Project costs cannot exceed *project budget*
3. 6 months into the launch of the app, at least 5000 accounts must have been created
4. At least 50% of the accounts created should remain as active users or continually use the app.
5. Positive feedback from users
6. Maintenance of the app through updates and bug fixes.

Infrastructure:

1. Google Firebase
    - Google Firebase is a promising platform to develop a mobile application for our class. Firebase will basically manage the backend services for our application. Its built-in features like authentication, file storage and many more will improve the quality of our application. We will use its real-time database server which is a cloud-hosted database (Cloud Firestore) to store and manage all our data.

2. Flutter software
    - Flutter, which is also created by Google, will manage frontend services for our application. We will use Flutter to write our code because it is a single codebase tool which means that the application can run on any Android or

iOS device from one codebase. The software uses a particular programming language called Dart which is also developed by Google. The software also lets us access the platform APIs and their services. Therefore, we believe Flutter offers us a great user interface framework where we can develop our application.

3. A laptop / Smartphone / Tablet to access the application
    - Any kind of above mentioned device is required to access the application.

4. Mobile simulator to test our application
    - We will be using Android Studio IDE for our software development. In Android Studio, they have a built-in mobile simulator which we can use to design and test our application before we launch it to the users. The simulators are available for both Android and iOS devices.