School of Computing

CA326 Year 3 Project Proposal Form

SECTION A

Project Title: DCU Hub App

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Staff Member Consulted: Malika Bendechache

DESCRIPTION OF THE PROJECT

Under the current situation of the pandemic, everything is remote based, from schools to workplaces. A great number of students are struggling to connect with classmates in their courses regarding their college work. From personal experience, we noticed that not everyone uses social media. Students find it difficult to work in groups online as not everyone has social media. Emails work but only to a certain degree as they're not instant messengers. Also, first year students haven't got a chance to meet their fellow students and lecturers on campus so forming connections is difficult. So, we thought of an idea to combat these problems and instantly connect DCU students so they can get to know their peers and discuss college related work with no hassle.

We came up with a plan to make a college network app called DCU Hub, exclusively designed for DCU students and staff. This application will allow students to connect with their classmates with our premade group chats for each course year group. This will enable them to manage their groups and projects better than ever before. Using social media has been the only way of communication between students until now.

Upon registration, users will authenticate their student/faculty status by signing up using their DCU account. Our system will verify if it's a DCU registered email address and a random temporary password will be sent to their email for them to use. The main feature of this application is the instant messenger with group chats made specifically for each year group. Students will also be able to make one-to-one chat to other students or staff members. Each user will have a personal profile with their name and course listed. We also plan on adding extra features such as newsfeed and a more accessible version of DCU Open Timetable. Under the news feed section, our app will display current news from the Student's Union and DCU. This will make it convenient for students to check daily updates and news as everything is in one place. There will also be a section where students can access their timetable without having to enter their course code each time. Students will be able to talk to someone using our application regarding mental health, academic stress or if they just need someone to talk to.

This application will grant DCU students and staff members to work more efficiently and effectively in regards to college work, make friends and also have someone to talk to instantly if they need advice without having to go to the DCUSU offices.

DIVISION OF WORK

Chloe will be in charge of the backend development by deciding what algorithms / data structures to design and use. Chloe will distinguish what needs to be done for our application features to be created. Chloe will also decide what tools will be implemented for our application to work such as databases etc. Joanna will be in charge of the frontend development by determining the structure and design of the app and balancing between functional and aesthetic design. However, the two will be working together concurrently on both aspects of frontend and backend.

PROGRAMMING LANGUAGES

- Python
- JavaScript
- MySQL
- Java
- HTML/CSS
- PHP

PROGRAMMING TOOLS

- Server
- Database
- Mobile development framework

LEARNING CHALLENGES

- Learning how to develop a mobile application.
- Learning a new language such as JavaScript to help build our frontend.
- Learning how to set up a similar idea of a social networking app.
- Learning how to tie both backend and frontend code together.
- Learning new algorithms and implementing data structures.
- Understanding the tools and languages to be used in order to apply them properly to the project.

HARDWARE/SOFTWARE PLATFORM

- Windows
- Linux
- IOS/Android devices