Coding Project Final Summary

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UniConnect is a free service that aims to bridge the gap between the physical and digital realms of university socialization by providing a comprehensive social networking platform tailored specifically for UIC students. The platform facilitates informal connections among students, fostering friendships and professional networks that extend beyond the confines of academia. By leveraging modern web technologies, UniConnect offers students a user-friendly interface where they can interact, share experiences, and engage in both casual and formal discussions. Students can follow each other, building networks of connections based on shared interests, academic pursuits, or personal affiliations.

This project is a full-stack social media web application. It utilizes technologies to insert, retrieve, modify and delete information pertaining to users from a database. Since this is a UIC specific service, students will be able to create their account using their school's credentials. Establishing connections is also a crucial aspect of this project. The students can be followed by a student, and themselves follow another student, those groups may intersect but they also may not. The students can be followed by a student, and themselves follow another student, those groups may intersect but they also may not. Students are also able to manually look up some students if they wish to establish a connection or look at their content. This is done through the functionality of the search bar, which takes the student's input and looks through the database for possible matches. Users are able to express themselves and share their thoughts with their peers, as well as have valuable discussions pertaining to their studies. Students can express themselves by creating posts, which will be available to the peers that follow them, and for that there needs to be successfully storing of those posts and displaying them to the user, as well as having a historical record of each post. The discussion section allows students to engage in particular formal discussions amongst themselves. They are able to filter through relevant sections of classes they attend if they have a particular question in mind, or if they want to share something valuable with their classmates. This allows the students to have constant contact with their classmates throughout their studies at UIC.

The technical aspect of this project has a couple of components that tie it together and allow its functionality. It follows the MVC software design pattern. The front end and UI side of this project is developed with the React.js framework, which among other things it is also responsible for deploying messages to the back end as to what action the user is trying to execute (i.e. creating a profile, log in, follow/unfollow student, create a post, etc.). The back end is implemented with Java and the Spring Boot framework, and it establishes the server that communicates with the user. It allows the user to store their information by also establishing a connection with the database. This database is a schema in MySQL which stores users' information, such as their account information, their posts, and their established connections with each other. The database is also deployed on the cloud by utilizing Amazon Web Services. This allows all users, across all devices, to be able to have synchronized updates to this database.

Every user, before they do anything, have to create their own account. This requires them to have a UIC email address. The account creation process is not complicated. Other than an email address, they need to choose a password. There are restrictions to what should that be, posed by the system itself, as well as verification checks. The rest of the information required for the use is their personal information (full name, date of birth, sex, classes etc.). Finally, now the user can log in using their UIC email and chosen password. Initially, users have no connections by default, which means that there is nothing in their home feed as to what other users are posting. Right now, the user can only observe the posts they create, unless they establish more connections. But establishing connections is fairly easy. With the use of the search bar, users can enter queries of other users' names and see results displayed. By clicking on one of these results, the user will be redirected to the profile they clicked on. Here they will observe the profile they clicked on, their name, their profile picture, their follower and following count, and their posts. By clicking the follow button, the user is establishing a connection, they are now a follower of some other user, and they will observe the posts of the new connection on their news feed from this point on, unless they click the unfollow button. In the profile page, the user can observe their personal information, their posts, and also their own follower and following count. As to the discussions page, there the user can create or reply to posts within a particular thread, as well as create different threads for different topics to engage with other users.