

Final Project

CS 341: Web Technologies

Jan – May Semester, 2023

Ashesi University

Lecturers: Dennis Asamoah Owusu & David Sampah

Assigned: 4th April 2023

Due: 21st April 2023

It does not sound like a terribly bad idea to have a social network for just Ashesi students. For your final project, you are to develop 6 of the functionalities which such a social network would have while using the ideas and concepts we have studied in the latter part of the semester around REST API, Serverless, Cloud Deployments and Flutter. Below are the specifications for the 6 functionalities.

All frontend development must be Flutter.

All code must be deployed in the cloud.

Create Profile Page/Section

This should allow a user to submit their student ID number, name, email, date of birth, year group, major, whether or not they have campus residence, their best food, and their best movie.

Edit Profile Page/Section

This should allow a user to edit all their profile information except their student ID, name, and email.

View Profile Page/Section

This should display the profile information of a given user.

The development of the profile functionalities should follow the REST architectural style. That is, there should be appropriate REST APIs at the backend. The profile details should be stored in an appropriate database.

Create Post Page/Section

Provide two text boxes in which a user can respectively enter their email and a text they want to share and submit.

Feed Page/Section

Provide a page or section which shows all the posts that users have made in descending order of time. This page should update in real-time. That is, if a user is on the page when another user makes a post, the post should immediately appear at the top of the feed.

Email Notification

Whenever there is a new post, an email should be sent out to all users stating that a post has been made along with the name of the user who made the post.

Deliverables

You are to submit a PDF containing the following:

- Links to the GitHub repositories containing all your code.
- A description of your entire system. (1/2 a page to 1 page)
- A description of how to test your system. (1/2 a page to 1 page)
- Screenshots that demonstrate all functionalities you successfully implemented.

Grading

Functionality (60 pts)

You get 10 pts for each functionality you successfully implement.

Insight and Understanding (20 pts)

Does your implementation show a good grasp of the ideas and concepts we have learned?
Do you use appropriate tools and technologies?

Clean Code (10 pts)

Is your code written in a way which is easy to follow? Is the code appropriately commented?

Wow Factor (10 pts)

This 10 pts is reserved for impressive developments beyond the basic requirements. For instance, you may score some points here if your UI is very nice or if your code is very well structured such that it avoids unnecessary duplications. These are just examples; basically anything noteworthy about your work which is not captured in the requirements will earn you some points here.