For the creation of SimpleSchool, my contributions are as follows: The creation of the code base, the design of the application, the server, database, and source control management, and lastly team organization. The skills I built upon were an entirely new set of web development skills. Prior to this project, I have never done anything related to web development and I used this as an opportunity to learn about that. I learn the language Dart and the toolset Flutter to build this entire application. On top of that, I had to learn a bunch of different web development methodologies, such as change notifiers, async development, and CRUD operations.

To get started, I used my entire winter break to learn the gist of how Flutter and Dart worked, so that come the spring semester I could start development immediately. One of the first challenges I stumbled across was properly designing my objects so that I could seamlessly send them to and from the database. At first, I was simply just trying to get the data in the database and then retrieve it. In my first implementation, this resulted in me having to process and structure the data when sending it. Then I would have to process and restructure the data again when receiving it. This is terribly inefficient and it is one of the things I want to go back and fix in the earliest code blocks. I had to leave it due to time. Another challenge I had was making it highly responsive. By this, I mean to have everything updated automatically without requiring a refresh. At the moment it does not do this, I learned shortly before the expo that I would need to implement Change Notifiers to make this work. While I was attempting to do this, I quickly realized it would require a decent sized overhaul of the entire codebase and decided to go without it. Another major challenge I had was getting the PDF viewer to properly load. After spending a month of trying to get this one thing to work, I had to let it go. I found out, after many many hours of digging through the update logs, that the library I was trying to use for PDF viewing, no longer worked due to the most recent Dart update. Those were my biggest challenges, some of my greatest successes were: I got the application to look exactly how I planned for it to look, I got all the main functionality working, and it was incredibly user friendly, which was a goal. I am very happy with how SimpleSchool ended up. I got it to do what I wanted it to do. The next steps are to make it fast!

Together Vincent and I managed to accomplish exactly what we set out to do. We built the MVP of Simpleschool and its looks and works exactly how it was supposed to. What we learned from group work is that we must stay organized and up to date on what the other is working on. If we don't do this we end up stepping on each other's code and would require a rollback. To prevent this, we had weekly meetings starting January 11th to assess each other's progress and reorganize. I found this to be highly successful and useful.

Some of the challenges that we would have, is in between our weekly meetings, I would spend a much greater time learning how to use flutter and dart and coding versus Vincent. I was spending about 40-60 hours a week during winter break and 20-30 hours a week during the spring semester. Due to this, Vincent wasn't able to get a strong grasp of the language and after about 5 weeks into the semester, it was decided that I would handle all the coding. The new split for work was Vincent would handle all the documentation, and I would handle all the coding. I would still like to acknowledge Vincent for always being on top of the documentation without me needing to do anything. This made it a lot easier for me to dedicate all of my focus to building the application.