What went well

- A lot of troubleshooting was done via Discord's screencast feature. Bryant would share his screen, and we would all be able to see his perspective. This was extremely effective in bug-catching and writing modules as all of us would have input in the situation instead of working separately.
- Git integration was very intuitive and easy. We made a point to make many commits to maximize utilizing version control.
- Again, we met all of our goals this Sprint. We actually finished more than we thought we would. We spent a total of 50+ hours working, and we think the maturity of our backend really shows this.
- We improved task delegation by adding to the "Projects" tab in Github and assigning tasks that way.

What didn't go well

- The constant coupling of Dart and Flutter made differentiating the two somewhat difficult. Many times, troubleshooting was a bit tricky because whether the issue was with Dart or Flutter was sometimes ambiguous.
- Firestore authentication had very little documentation. Finding how to retrieve collections either involved stack overflow or extensive testing with functions.

What could be improved

- There are many commit differences between the group members of our team. Some people have a lot of work stashed into one commit, and others try to delegate commits to only one file.
- Our code has very few comments. Adding more could help with debugging. This would also make the code more readable.
- A lot of our code is asynchronous, which might slow down the application. Removing unnecessary await and async calls could really help with our speed.

Challenges

- Dart does not have a mature ecosystem: it lacks proper documentation and much of it is outdated or depreciated.
- There cannot be unit tests with firebase without either creating an instance in the production database (which should never happen) or creating a connection string, which forces the github repository to be private due to the string having sensitive information.
- There are a lot of hidden errors (async cannot be used in forEach statements, lists must be properly initialized) that compile and don't have warnings but have the power to completely shut down the application.