Sprint 1 Retrospective

Team: 4

Project: UniLyfe

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1. What went well?

Though our group might have made some uninformed estimates of how much we could accomplish in a three-week timeframe, every member finally has a good understanding of how Dart, Flutter, and Firebase work. We have a working login and authentication system, usable UI, and several features that we detailed in our user stories for the first sprint.

User Story #1: As a user, I would like to log in using my college email account through Google or Email/Password.

#	Description	Estimated Time	Owner
1	Create sign-in page UI with sign-in buttons	2 hours	Carolyn
2	Connect UniLyfe's sign-in system to the Firebase Authentication SDK	3 hours	Ramitha
3	Create an algorithm to check if the email is a valid college email	2 hours	Isha
4	Set up email verification with Firebase when a user signs in for the first time	3 hours	Isha
5	To test: Debug and test algorithm using unit tests	2 hours	Isha

Completed: We have successfully implemented our authentication system. Users can now sign up and sign in to our app, and all their credentials get stored on Firebase. If a user enters in details incorrectly or tries to use a non-college email during sign-up/sign-in, they will receive warning messages. After signing up, users receive an email to verify their account. In addition to regular sign-in & sign-up, we have also implemented Google sign-in (the same principle applies where users can only sign in with a college email). Everything runs smoothly on both iOS and Android devices.

User story #2: As a developer, I would like to access and store the username data for each user.

#	Description	Estimated Time	Owner
1	Create a page with a text input field for a user to input their username.	2 hours	Gayathri
2	Create an algorithm to see if username exists	2 hours	Ramitha
3	Create an algorithm to suggest available usernames	3 hours	Isha
4	Link sign-in/sign-up page to username page and link the username page to the 'edit profile' page so users can set or edit their username.	3 hours	Gayathri
5	To test: Debug and test algorithm using unit tests	2 ½ hours each	Isha, Unnati

Completed: After a user signs up, they get redirected to a page where they can enter their username and other details they would like to include in their profile. If the user enters a username that is in use, they will receive a warning message. The warning message tells them the username is not available and suggests three usernames that have not already been taken. Once the user submits a valid username, the username field for the user updates in our Cloud Firestore database.

User story #3: As a user, I would like to easily access the different subsections of the application making the app user friendly.

#	Description	Estimated Time	Owner
1	Create and implement the UI for the feed page	2 hours	Unnati
2	Create a page for the user profile	1 hour	Unnati
3	Create menu bar at the bottom of the screen that shows up for each subpage	1 hour	Unnati
4	To test: Ensure all the buttons lead to the appropriate pages	1 hour	Unnati

Completed: There are tabs at the bottom of the page that help the user navigate through the home, search, create, covid, and profile pages. On the home (or feed) page, there are four tabs at the top that are labeled all, food, study, and social, and they each lead to pages that will have the posts appropriate for that channel.

User story #6: As a user, I would like to post reviews highlighting my experience in locations near Purdue University.

#	Description	Estimated Time	Owner
1	Create a text post	3 hours	Isha
2	Post is taken to the feed page	2 hours	Isha
3	Add a tag using existing tags or new tags	2 hours	Isha
4	Update location and channel field in the post class when a post is being made	2 hours	Isha
5	To test: test and debug functionality for posting and seeing reviews	5 hours	Isha

Completed: We successfully implemented this feature. On our bottom tab, there is a section where users can create a post. On this page, there are three buttons, one of which states 'Create a text post.' When the user clicks on this button, they get directed to a section where they can enter the title of their post, add the body of their text post, and select a tag before submitting the post. When the post is submitted, it is added to the homepage as well as our database. There is a timestamp on the post signifying when the post was created. Posts on the homepage are in order of most recent to least recent. They don't go away if a user logs out since it is integrated with the database.

User story #7: As a user, I would like to create polls to gather feedback on popular locations.

#	Description	Estimated Time	Owner
1	Create a poll post	2 hours	Ramitha
2	Post is taken to the feed page	2 hour	Ramitha
3	Display answers once the user has taken the poll	1 hour	Ramitha
4	Add a timestamp to the polls so that the user will be able to view when the post has been created	1 hour	Ramitha
5	To test: test and debug functionality for creating a poll post	5 hours	Ramitha

Completed: We successfully implemented this feature. As said before, there is a section where users can create a post on the bottom tab. On this page, there are three buttons, one of which states 'Create a poll post.' When the user clicks on this button, they get directed to a section where they can enter the question/title of their poll and choices for the poll. When the poll is submitted, it gets added to the homepage as well as our database. There is a timestamp on the poll signifying the time it was created. After the user clicks on the answer, the percentages for each option get shown to the user.

User story #9: As a user, I would like to read reviews posted by others regarding their experiences in locations near Purdue University.

#	Description	Estimated Time	Owner
1	Organize all the posts based on their tags	2 hours	Isha
2	Update location and channel field in the post class when a post is being made	2 hours	Isha
~~3~~	Ensure that the timestamp is visible to all users	1 hour	Isha
4	To test: Test and debug functionality for viewing posts in tags and channels and updating timestamps	3 hours	Isha

Completed: We successfully implemented this feature. When a user is about to submit a post, they must select one of these three tags: Food, Study, or Social. The post is displayed on both the homepage and the channel corresponding to the selected tag after it is submitted. In our database, there are separate collections for the homepage and each channel. Posts are also added to these after they are submitted. Each post has a timestamp, and they are ordered by most recent to least recent in the database.

User story #10: I would like an information button or tutorial with explanation of each feature in the app

#	Description	Estimated Time	Owner
1	Include information button on each subpage of the UI	2 hours	Gayathri
2	Include descriptions of the section for each button	3 hours	Gayathri
3	Add a place to exit out of the information button (either click on a place other than the information popup or have an exit button)	1 hour	Gayathri
4	To test: Test and debug UI of information page	2 hours	Gayathri

Completed: We successfully implemented this feature. We added an information button on each subpage and implemented functionality so that the users are able to click on the button. Moreover, each individual subpage - "all", "food", "study", "social" - contains an information button that when clicked on, displays a short and succinct blurb on what that page's purpose is. We also included a 'dismiss' button so that users can exit out of the information button.

2. What did not go well?

There were several reasons why this sprint did not go well. One reason was that our group had made some uninformed estimates of how much we could accomplish in a three-week timeframe. The user stories were quite broad, causing us to cover many small user stories within one user story. Our group also had technical issues in setting up Flutter. Two of our team members had to buy new computers due to incompatible versions. This delayed the start of our sprint until the end of Week 1. Another team member had a family emergency concerning COVID-19 during the second and third week of Sprint 1. Overall, these reasons caused our group to fall behind. We simply did not have enough time to complete everything. We managed to complete most of our user stories. But there are a few user stories that require more work and that need to be completed. In Sprint 2, we plan on finishing the user stories we didn't get to and finish new user stories.

User story #4: As a user, I would like to be able to edit certain elements of my profile.

#	Description	Estimated Time	Owner
1	Create an 'edit profile' screen with an area dedicated for users to edit/set their profile picture. (Just create the section, the functionality for uploading a picture has already been made).	1 hour	Unnati
2	Create an 'edit profile' screen with an area dedicated for users to edit/set their username. (Just create the section, the username text field has already been made).	1 hour	Unnati
3	Create a section where the posts you liked can be viewed	1 hour	Unnati
4	To test: Ask two users (another creator) to ensure that they are able to view their profile picture	5 hours	Unnati

Underway: Our application currently saves information about the user to the database. But we need to figure out how to retrieve this data from the database when the user refreshes the page. Also, our application does not have a section where the posts the user can view the posts they liked.

User story #5: As a user, I would like to upload photos/videos so that my peers will have an idea of what the place is like.

#	Description	Estimated Time	Owner
5	Post is taken to the feed page	2 hours	Carolyn

Underway: Our application currently has a form where the user can create an image/video post, open the device's camera or camera roll, and request to access the user's camera roll or camera for the first time. The user is also able to add a text caption to the image post they would like to upload. Due to time constraints, we could not bring the image post to show up on the home feed page.

User story #8: As a user, I would like to add comments regarding my experiences at certain places.

#	Description	Estimated Time	Owner
1	Create comment field on each post	2 hours	Gayathri
2	Allow user to upload a text comment, which goes to a database	2 hours	Gayathri
3	Enable a feature to reply to a comment	2 hours	Isha
4	Enable a feature to like the comment	2 hours	Isha
5	Enable a feature to delete your own comment, removing it from the database as well	2 hours	Gayathri
6	Add a timestamp to the comment	1 hour	Unnati
7	To test: Test and debug functionality for adding, editing, and deleting comments on posts	5 hours	Gayathri

Underway: Currently, we have a simple comment field that allows the users to add remarks. However, several features are missing. This includes the ability to reply to or like the comment. Also, it has not been connected to the database, so comments don't get saved. In Sprint 2, we plan to complete this task with all the expected features.

User story #11: I would like to add pictures of/information about myself so I can easily get matched to people.

#	Description	Estimated Time	Owner
1	Allow users to upload pictures from their camera roll to set as their profile picture.	2 hours	Gayathri
2	Allow user to add a short biography about themselves in the user profile	2 hours	Gayathri
3	Allow users to edit photos and biography in their user profile	2 hours	Gayathri
4	To test: Test and debug functionalities for editing user profile information	2 hours	Gayathri

Underway: Some parts of this user story are complete. However, we have not yet figured out how to upload users' photos as their profile pictures. This is because we need to find a way to save the photos in the database. We plan on completing this in the first week of Sprint 2.

User story #12: As a user, I would like to anonymously log the places I have visited recently on the app if I have tested positive for COVID.

#	Description	Estimated Time	Owner
1	Allow user to press “update covid information” button on the map page	2 hours	Unnati
2	Check if the user is already in the system	2 hours	Unnati
3	If not in the system, send information to database	2 hours	Unnati
4	To test: Test and debug functionalities for logging locations on the COVID map	2 hours	Unnati

Underway: Our application currently saves information about COVID-19 to our database, but this information is not reflected on the map yet. Due to time constraints, we could not get the 'Update COVID-19 Information' button to show up on the map page. We plan to spend more time exploring options to improve this functionality.

User story #13: As a user, I would like to know where COVID hotspots are located graphically on a map.

#	Description	Estimated Time	Owner
3	Add a legend which allows the users to understand what the color of the pin represents	3 hours	Carolyn
4	To test: Test and debug functionalities for map display and location pins	1 hour	Carolyn

Underway: This user story is almost complete. However, there is one feature that we did not get to implement due to timing and difficulty: Add a legend that allows the user to understand what the color of the pin represents. We will complete this task in our upcoming Sprint.

User story #14: As a user, I would like to add topics I am interested in adding tags to my favorites folder which can be used to get notifications or/and make new friends

#	Description	Estimated Time	Owner
1	Ensure each user has a functional favorites section	1 hour	Isha
2	Ensure that the user allows the app to send notifications based on the tags the user has specified	3 hours	Unnati
3	Ensure the users can add to these section	2 hours	Isha
4	Ensure that clicking on this post in this folder will take you to the appropriate channel as shown in the UI	1 hour	Isha
5	To test: Test and debug functionalities for favorites folder	2 hours	Isha

Underway: We simply did not have enough time to start this task. We only managed to implement the posts feature two days before our demo. We plan to complete this task in future sprints.

User story #15: As a user, I would like to rate places based on my personal experience.

#	Description	Estimated Time	Owner
1	Stars shaded correspond to the rating out of 5 when a user is selecting a rating for a certain location when creating a post	2 hours	Gayathri
2	Stars are shaded corresponding to the *average* ratings of a location	2 hours	Carolyn
3	On a location's page, their average ratings out of 5 should be displayed	2 hours	Carolyn
4	To test: Test and debug rating functionalities for single ratings and average ratings	4 hours	Carolyn

Underway: This user story is almost complete. However, there are a few functionalities that are missing. We need to display the average ratings of a location once the user has rated the post. We also need to update this information in the database. This shouldn't take too long, and we plan on doing this as a group in Sprint 2.

3. How should you improve?

We can improve by making the user stories more specific. Our broad user stories made it difficult to implement everything within three weeks. Short and detailed user stories would be much more manageable, and we would have the time to complete them to the best of our ability. At least now we know how time-consuming development can be.

We should also plan our tasks better. Many members had parts that relied on the completion of others. For example, we could not add the commenting feature without a post. We should avoid these circumstances as much as possible. However, sometimes it is inevitable. In those situations, the team member must get an early start so that the other team member has enough time to complete their part.

We should also manage our time more efficiently. Unlike last week, where most of our user stories were done in the second and third week, this time we will aim to finish at least one user story a week so that we are on track to get all user stories done in a timelier manner. Furthermore, especially for those who have tasks that rely on other people, we plan to communicate more efficiently so that we do not delay the rest of our teammates.