



Sprint 1 Planning Document

Team: 4

Project: UniLyfe

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Sprint Overview

During this first Sprint, we hope to gain a solid understanding of the framework and database we plan to use (Flutter and Firebase respectively). We also plan to create the general UI concept of our application. i.e. we will create the basic features of the different subsections of the application. We also plan to implement the functionality of creating a post, whether it be an image, text, or poll.

Scrum Master: Carolyn Chen

Meeting Plan: Sundays 7pm, Tuesdays 10pm, Thursdays 10pm

Risks and Challenges:

The biggest challenge we anticipate is getting acclimated to Flutter and the programming language, Dart. It will also be a challenge to find an efficient way to access the information stored in the database, Firebase. Furthermore, exploring and deciding which APIs we want to use will be a challenge. Another challenge will be figuring out how to link different pages with each other.

Current Sprint Detail

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

Acceptance criteria:

- Given that the Firebase Authentication SDK is implemented correctly, when the user should be able to successfully log in using their Google or email account, the user should be able to create a unique username for their account.
- Given that the sign-in UI is implemented correctly, when the user signs in, then the user should be directed to the home page.
- Given that the algorithm to check for valid college emails is implemented correctly, when the user attempts to use a non-college email, then the user should

be prompted with a warning message stating that they must use a college email to proceed.

- Given that the email verification with Firebase is implemented correctly, when the user signs in for the first time, then the user should receive a verification email within 10 minutes of signing in.

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

Acceptance criteria:

- Given that the username algorithm is implemented correctly, when the user enters a username that already exists, then a warning message should appear prompting the user to enter another username that is not in use.

- Given that the algorithm to suggest available usernames is implemented correctly, when the user is prompted to enter a username, then they will be suggested three usernames that are not already in use.
- Given that the sign-in page is correctly linked with the username page, the user should be directed to the page to create a username if their account does not already exist, or the user should be directed to the home page after the user signs in.
- Given that this feature is correctly implemented, when the user creates their username, the database should be updated with the user's username.

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

Acceptance criteria:

- Given a user opens the app, when the user looks at their screen, then distinct pages for the feed and for the UI exists.
- Given a user opens the app, when the user looks at the bottom of their screen, then a menu bar with the five buttons specified on the mockup exists.

- Given a user opens the app, when the user clicks a button, the button will take you to the correct page.

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 (done)	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 (done)	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

Acceptance criteria:

- Given the editing function on the user profile is implemented correctly, when the user tries to upload photos, the photos will be visible on their user profile as well as stored in the database.

- Given the editing username function is implemented correctly, when the user tries to change their username to another valid one, the new username should overwrite the previous one in the database.
- Given the user profile is implemented correctly, when the user clicks view profile, then the user should be able to view all posts that they have made on their profile.

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
1	Create an image/video post	3 hours	Carolyn
2	User can choose to open device camera or open device's camera roll	2 hours	Carolyn
3	Request access to user's camera and/or camera roll when selected for the first time	2 hours	Carolyn
4	Allow user to add a text caption	2 hours	Carolyn
5	Post is taken to the feed page	2 hours	Carolyn
6	To test: assess functionality	5 hours	Carolyn

Acceptance criteria:

- Given that the posting function is implemented correctly, when the user accesses the home page, then the user should be able to see their post on the general feed and the feed under the location.
- Given that when I close the app, when I open it again, the post should not disappear after closing the app and opening again.

- Given that the user creates a new post, when the user adds a new picture from the camera roll, then the user should receive a notification which allows the app to access their camera roll.
- Given that the photo/video post functionality works, then the photo/video post and related info should be stored in the database.

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

Acceptance criteria:

- Given that the user creates a new post, when the user clicks the post button, then the post should be visible in the general feed as well as the feed of the location of the right channel.
- Given that the user creates a tag, when a user clicks on the tag, then the user should be taken to a page full of posts with the same tag.
- Given that the user posts the new post, when the user exits the app, then the post should not disappear after opening the app again.

- Given that the text post functionality works, then the text post and related info should be stored in 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

Acceptance criteria:

- Given that the user creates the poll, when the user posts the poll, then it should be visible to everyone.
- Given that the user views the poll, when the user answers the poll, then the poll should display the results to the user as soon as the user clicks on a response.
- Given that the user creates the new poll, when the user exits the app, then the post should not disappear after opening the app again.
- Given that the poll functionality works, then the poll and related info should be stored in the database.

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

Acceptance criteria:

- Given that the user wants to comment on a post, when the user clicks on the post, then there will be an area where the user can add comments.
- Given that the user wants to view the comments on the post, when the user clicks on the comments, then the users should be able to like the comment, incrementing the like count on the corner of the comment.

- Given that the user wants to view the comments on the post, when the user clicks on the comments, then the user should be able to view all the comments posted by others and the user should be able to reply to other peoples comments.
- Given this feature is implemented properly, when the user creates a comment or deletes a comment, the database will reflect the corresponding changes.

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

Acceptance criteria:

- Given that the user opens up different channels, when they view the posts in a location, the posts should be appropriate for that location.
- Given that the UI for this feature is implemented properly, when the user clicks on a certain tag, only posts with that tag should show up.
- Given that the timestamp functionality is implemented correctly, all users should be able to see when a certain post was created.

- Given that the homepage functionality works properly, then ensure that the homepage timestamps is the same as the timestamp 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

Acceptance criteria:

- Given that the information tutorial is correctly implemented, the user should be able to click on a button that will provide them with a tutorial of that particular section of the app.
- Given that the information tutorial is not the main purpose of a page, when the user visits a page, they will not be diverted/distracted from the main focus of the page.
- Given that there are multiple subsections of each page in the app, when the user clicks on the button, they will be provided with an overview of each page rather than an overview of each subsection. (Ex: information button for “feed” rather than the “food” subsection.

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

Acceptance criteria:

- Given that the profile functionalities are correctly implemented, the user should be able to upload profile photos to their user page, add a short text biography about themselves to their user profile.
- Given that the profile functions correctly, the user should be able to remove and edit the photos on their user profile.
- Given that the editing functionalities are implemented correctly, the user should be able to edit their user biography on their user profile.
- Given that the profile functions correctly, the user's biography and photos should be stored successfully into the database.

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

Acceptance criteria:

- Given that the COVID logging system functions correctly, a COVID-positive user should be able to select a location where they have been in the past 3 days and log that they were at that location.
- Given that the COVID logging system functions correctly, the map should display a pin where the COVID-positive user has logged their location.
- Given that the COVID logging map functions correctly, the user should be able to see how many COVID-positive users have been in a certain location in the past few days.
- Given that the logging function is implemented correctly, the location logged by the user should be stored successfully into the database.

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

#	Description	Estimated Time	Owner
1	Add a map of the university	1 hour	Carolyn
2	Add a pin which contains all the demographics	1 hour	Carolyn
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

Acceptance criteria:

- Given that the COVID map is implemented correctly, the map will show darker shades of red for places that are more significantly affected by COVID-19.
- Given that the COVID map is implemented correctly, the user should be able to identify which locations on campus have had a higher concentration of COVID-positive individuals in the past few days.
- Given that the map function is correctly implemented, the user should be able to zoom in and out on the map.

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	3 hours	Unnati

	to send notifications based on the tags the user has specified		
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

Acceptance criteria:

- Given that the notification function is implemented correctly, the user should be able to select specific tags that they are interested in, and the tags will be put into their favorites folder.
- Given that the favorites folder function is implemented correctly, the user should be able to receive push notifications for every post that has the tag listed in their favorites folder.
- Given that the notification function is implemented correctly, the user should be able to choose which tags they would like to receive notifications for.

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 <i>average</i> 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

Acceptance criteria:

- Given that the rating system is implemented correctly, the number of stars should reflect the average ratings of all reviews of a certain location.
- Given that the rating system is correctly implemented, the user should be able to select 1-5 stars to rate a certain location when creating a post.
- Given that the rating system is implemented correctly, the average ratings of a location should show up on the location's page.
- Given that the rating system is implemented correctly, the ratings should be stored successfully into the database.


Remaining Backlog

Functional Requirements:

- ~~1. As a user, I would like to create a new account with a username and password~~
2. As a user, I would like to log in using my college email account through Google or Email/Password.
3. As a user, I would like to log in using my Purdue Career Account (if time allows)
- ~~4. As a user, I would like to be able to edit certain elements of my profile.~~
- ~~5. As a user, I would like an information button or tutorial with explanation of each feature in the app~~

- ~~6. As a user, I would like to easily access the different subsections of the application making the app user friendly.~~
- ~~7. As a user, I would like to post reviews highlighting my experience in locations near Purdue University.~~
- ~~8. As a user, I would like to see all recent posts on my home feed.~~
- ~~9. As a user, I would like to read reviews posted by others regarding their experiences in locations near Purdue University.~~
- ~~10. As a user, I would like to add pictures of/information about myself so I can easily get matched to people.~~
11. As a user, I would like to make friends with those who have similar interests, taking the same/similar classes, and those who are in the same/similar clubs/extracurricular activities as me.
12. As a user, I would like to know where COVID hotspots are located graphically on a map.
13. As a user, I would like to avoid COVID hotspots on/near campus which are displayed by red dots on the map by seeing a list of these locations.
- ~~14. 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.~~
15. As a user, I would like to see how many people who have tested positive for COVID
16. As a user, I would like to see how many people with COVID have been in a certain building recently.
- ~~17. As a user, I would like to create polls to gather feedback on popular locations.~~
18. As a user, I would like to try to find quiet, empty places to study.
19. As a user, I would like to read the opinions of my peers to know what food is good at the dining courts.
20. As a user, I would like to rate specific foods served at the dining courts (i.e. what sauces are best at the stir fry place in Earhart)
21. As a user, I would like to add specific foods served at the dining courts (i.e. Earhart is now serving X weird ice cream flavor)

22. As a user, I would like to be notified whenever someone makes a post about a certain topic (i.e. free food on campus, dining court reviews, photos from a certain location).
- ~~23. As a user, I would like to add topics I am interested in to my wishlist which can be used to get notifications or/and make new friends (i.e. Ramitha and you like to study at Lawson)~~
- ~~24. As a user, I would like to rate places based on my personal experience.~~
25. As a user, I would like to be able to search for keywords across all posts on the app.
26. As a user, I would like to filter locations based on how high their ratings are.
27. As a user, I would like to filter posts on my home feed by reviews, ratings, or polls.
28. As a user, I would like to explore places which only Purdue students know (ex: top of Lawson).
29. As a user, I would like to add more places which not many students know about.
- ~~30. As a user, I would like to upload photos so that my peers will have an idea of what the place is like.~~
- ~~31. As a user, I would like to add comments regarding my experiences at certain places.~~
32. As a user, I would like to read reviews on residence halls so that I know the most popular places to live (if time allows).
33. As a user, I would like to add information about events happening on campus.
34. As a user, I would like to read/write reviews on residence halls and nearby apartments (if time allows).
35. As a user, I would like to earn points by posting on the app and interacting with people on the app.
36. As a user, I would like to redeem points for possible incentives (i.e. coupons)
37. As a user, I would like to be able to report users for inappropriate content (racism/ hate speech)

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- 38. As a user, I would like to see a completely randomized post/event/comment/location (if time allows)
 - 39. As a user, I would like to indicate whether or not I thought a review was helpful.
 - 40. As a user, I would like to view my comment history.
 - 41. As a user, I would like to view all the posts I have ever liked.
 - ~~42. As a developer, I would like to access and store the username data for each user.~~
 - 43. As a developer, I would like to access the locations the users have visited with Covid
 - 44. As a developer, I would like to access the data inputted by the user to display it properly
 - 45. As a developer, I would like to access and analyze information that users upload about themselves for their profile.
 - 46. As a developer, I would like to filter out possibly harmful words in the comments/posts.
 - 47. As a developer, I would like to filter out inappropriate photos users have posted.