Mindfulness Application - Final Report [Prototype V 2.0]

Names and UtorIDs of Group Members

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Document Purpose

The following document contains all feature and implementation details associated with the initial prototype of the SCI Mindfulness application. This includes feature details for respective target audience/clients, tech-stack used, completed elements, future plans and milestones, as well as any miscellaneous logistics.

Stakeholders

Our immediate stakeholder for this project is the SCI&U group, headed by Mary-Jo Fetterly, the mindfulness and mental health coach for the SCI&U group. The SCI&U group is a group dedicated towards assisting patients facing spinal cord injuries.

This group meets on a weekly basis, and podcasts/videos posted by Mary-Jo are distributed on both her website as well as on Youtube. These meetings are recorded and saved here, and Youtube is used to live stream the meetings on set meeting dates. Mary-Jo coordinates these meetings on a regular basis in order to provide mindfulness content. The issue at hand was that previously recorded content and any new information was not available or hosted in any organized platform.

For more information regarding Mary-Jo and her amazing work; https://mary-jo.com/.
SCI Group; https://sci-bc.ca/event-dir/mindfulness-with-mary-jo/

Upon reaching out to her, there was a potential to build an iOS application which allowed her followers to be able to connect in a more organized and efficient manner to the content offered by the group.

Upon reaching out to Mary-Jo & the SCI&U group, we discussed ideas to help resolve some of her concerns, which included the following:

- Mary-Jo wanted a way to connect with her group on a more informal basis, this included having reminders for upcoming sessions, sending positive messages on a daily basis
- It would have been efficient for all her podcasts/recordings to be stored in a single platform enhancing the ease of use
- The ability to categorize her videos and other formats (pictures, sounds) based on subheadings of her choice, which makes it easier to browse the different selections as a user.
- Having the ability to view the statistical page as a user, to see liked videos as well as retrieve any statistics when using the application
- Ability to download the videos offline, as a result the internet is no longer to stream/watch the videos.

These were some of the problems discussed during our brainstorming sessions, which is where our group decided on building out an iOS application to help resolve her issues of organization and inefficient access of content. The purpose of the iOS application will be to serve as a way for Mary-Jo to reach out to her audience by posting daily messages, setting reminders, as well as neatly categorize the current media content spread across youtube and different streaming platforms for better categorical access. These categories will be made granular in terms of the meditation content of different situations or scenarios decided by Marry-Jo, giving the user the opportunity to reflect, relax, and meditate. Users will also be able to stream content offered live by Marry-Jo without leaving the application and having to go through the trouble of parsing through Youtube to find the live stream. This goes for all of the content that is offered on the application.

Feature Rankings

The priority of the features that were included in this initial prototype were overall chosen based on importance, difficulty of implementation, and stakeholder/target audience requests. These features are considered as “core” features that are used to build the foundation of the application itself, hence part of the initial prototype design. Secondly, we rank the priority based on evaluating the cost (time, resources) as well as keeping 3 factors in mind; **feasibility** and **desirability**. (Mackay, 2018)

Features Completed - Prototype

- Established and connected Firebase infrastructure, with all necessary infrastructure present within the frontend Swift application.
- Implemented the ability to create, login with respective accounts
- Designed and implemented a carousel to act as buttons to allow users to explore different categories in a subfield.
- Dynamic changing and modification of the carousel.
- Create the UI of the application based on the proposed prototype design document, which held information elicited from the SCI group regarding features.
- Ensured all Youtube links are dynamically retrieved from Firebase through the videoId. A videoId is a unique identifier of each Youtube video. For example, https://www.youtube.com/watch?v=11111111, given this Youtube link, the videoId would be **11111111.**
- Designed a structural flow of the program, starting from user login until user is able to watch/access the specific Youtube video
- Presented the user an option to like/dislike videos, which can be used to allow users to have all their favorites videos in a separate section.

Here are a few diagrams of the two major home pages from the mock-up design, please refer to the mock file to view the entire application design:

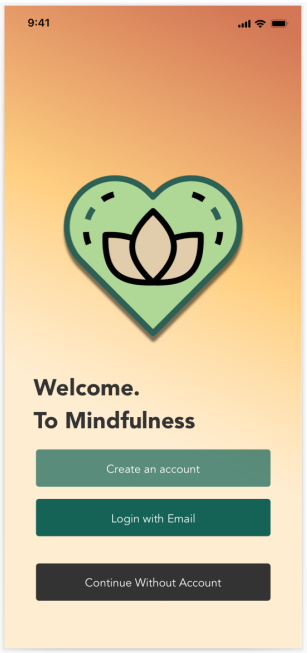


Diagram 1: Login Page

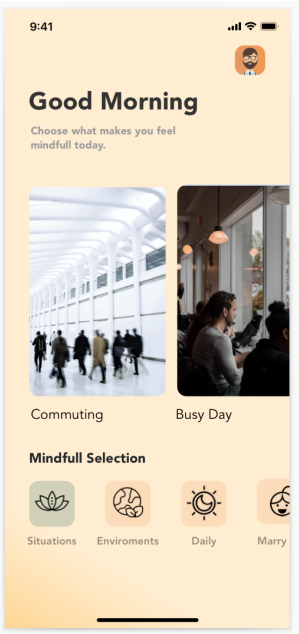
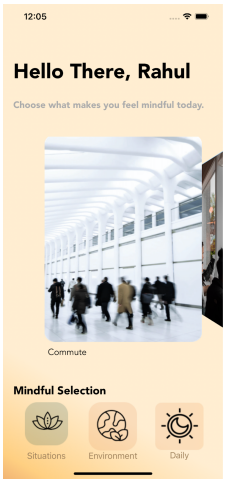
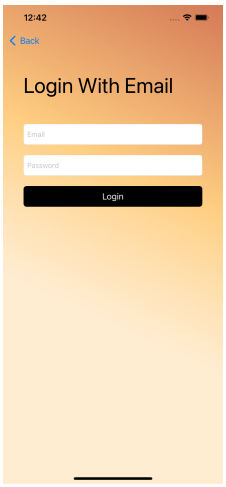


Diagram 2: Home Page

Pending/Improved Features - Design (Ranked By Priority)

Features	Feasibility	Desirability	
Replace the pull down with a back button, makes it more convenient for first time users	High	High	
Change the message in the main page	High	Medium	 *Diagram 3: Home page with Custom Message*
More password authentication abilities, such as resetting passwords	High	Medium	 *Diagram 4: Current Authentication Page*
Add the ability to contact someone for the login authentication issues	Low	High	

Pending Features - Prototype (Ranked By Priority)

Features	Feasibility	Desirability
Enhanced connections to Firebase to ensure all operations are loaded dynamically. - This includes all pictures/logos/documents - Buttons should be dynamically generated based on the number of videos that exist in Firebase Storage.	High	High
Creating a page that will allow the user to explore their statistics and personal information. The infrastructure has already been created in Firebase.	Medium	Medium
Create the ability to log a user in without having an account (As a guest, this should ensure that they are not able to interact with certain features. This includes the ability to like or dislike a video, having a statistic page to take a look at their data on the application)	Medium	High
Ensure all UI labels/buttons and sizing works independently for different ranges of Apple products	Medium	Low
Explore other forms of media that can be incorporated into the application. Ex. SoundCloud, Spotify, Apple Music	Medium	Medium
Optimization → This is specific to all operations that are being retrieved from Firebase. This includes handling all async/sync operation	Low	Low

Tech Stack

The tech stack used for this project is simplistic in that it revolves around **Firebase** for the backend and **Swift** for frontend UI implementation. Within our front-end, we used several important code dependencies such as:

- Cocopods
    - iCarousel
    - Youtube Player

We have used Firebase as our backend as it supports multiple platforms, and its ease of use is always appreciated for learners. It also offers a lot of in-built support for authentication, as well as document storage (Upendra, 2016).

Diagram 5: Tech Stack for Mindfulness Application

Conclusion

Overall, we were satisfied with the goals we have achieved within this term. Some of the goals that we met was that we were able to elicit information from the SCI&U group, parse through the requests, and be able to come up with a design that would match their feature requests and be easy to use. This of course is a difficult process to find the perfect middle ground for, however, we were able to create an application design that was met with great acceptance by the SCI&U group.

Furthermore, not only were we able to complete the design of the application but also got a substantial amount of progress done regarding its implementation. We were able to create a working user login connected to the background, and implemented everything from the home page to category selection to respective video playback. From here on, those who pick this project up will be able to easily follow our design to polish and implement the Swift application.

Logistics

Github Access → https://github.com/abdullahkhokhar/Mindfulness-iOS
Firebase Credentials → Email: spinalinjury22@gmail.com, Password: SpinalInjury22
https://plan.io/blog/feature-prioritization/

Bibliography

MacKay, J (2018, October 9). Feature Prioritization: 7 Ways to Prioritize Features and Product Improvements. *Plan Io.* https://plan.io/blog/feature-prioritization

Upendra, P (2016, August 31). Why Firebase is the Best Mobile Backend as a Service? *Tristate Technology.* https://www.tristatetechnology.com/blog/Firebase-backend-mobile-app/