

Milestone 3 : SYSTEM PROTOTYPE AND EVALUATION PLAN

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Prototype of System

List of Features:

The main page prompts the user to select one of seven actions:

- NEW
- CALENDAR
- EXERCISES
- GOALS
- STATISTICS
- MESSAGES
- SETTINGS

Note: Our project focuses on two main features: New(main feature) and Calendar (additional feature) actions.

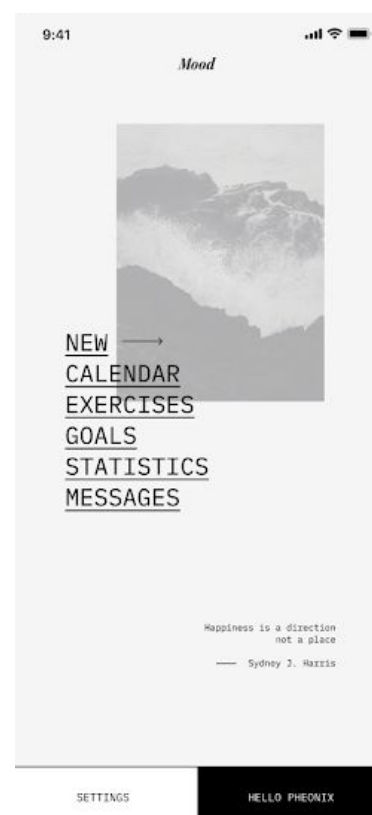
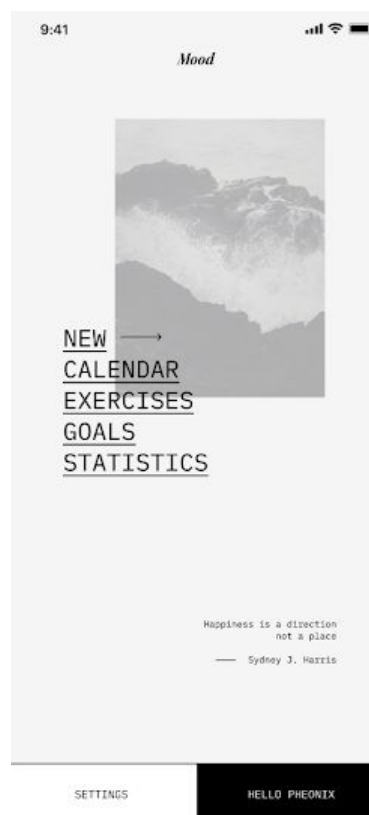
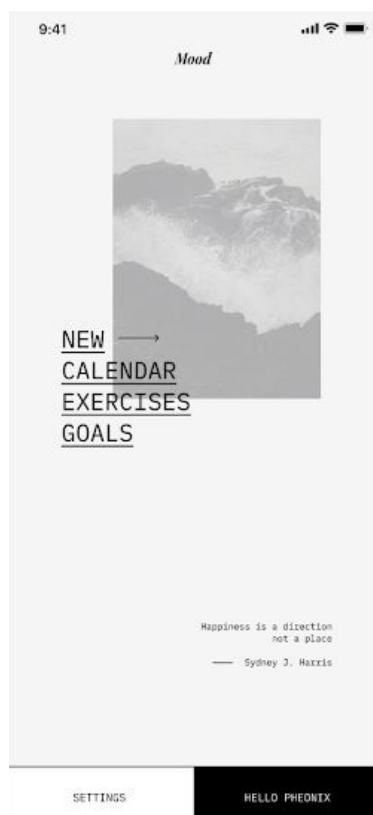
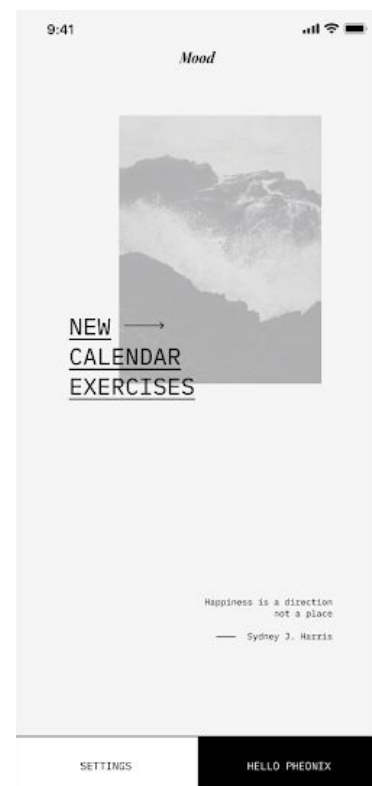
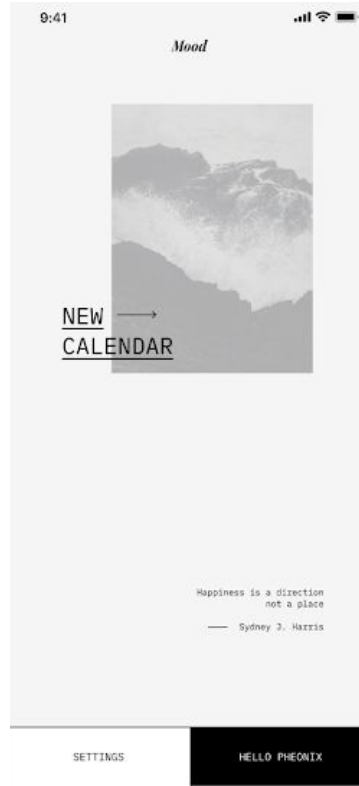
- **New:** Allows users to create a new journal entry for the day. This is the main feature of the app. This feature has the following sub-features:
 - Subfeature 1 (Blank Journal): This screen is essentially a storyboard which lets users type how they are feeling.
 - Subfeature 2 (How are you feeling today?): This screen allows the user to select multiple moods/emotions by scrolling left and selecting the one that best fits them. The darker the background the more severe the emotion that is felt.
 - Subfeature 3 Optional (Draw how you feel): This screen allows the user to either draw their emotions to better clarify their feelings, or skip it. Users are not limited to only drawing. They can change their input mode in “Settings” to ‘DRAW’, ‘PICK FROM RECENTLY DRAWN’, or ‘OFF’.
 - Subfeature 4 (Save and Send): Once the journal has been written, one can simply click “Save and Send” and the journal is directly sent to the email address of the therapist that was pretty defined during the sign-up process.
- **Calendar:** Allows users to carry out three actions:
 - View appointments : Allows the users to view all the pre-booked appointments.
 - View past Journal entries : Allows the user to view past journal entries just by selecting the respective date from the Calendar.
 - Edit past Journal entries : Allows the user to edit the past journal entries just by pressing “Edit” which turns the screen for that respective journal to the edit mode. The user can save these changes by hitting “Save”.

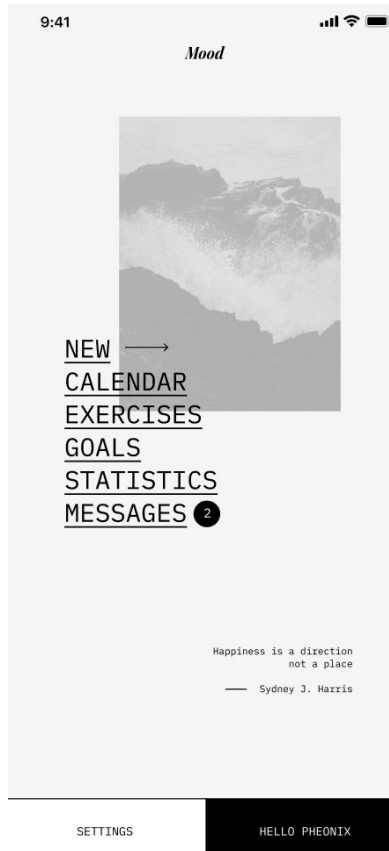
Description of the working of the system:

1. **Start Screen:** The design team has worked on building an application called “Mood”, a therapy companion app. The following screenshot is what the *Mood* app Startup screen looks like.



2. **Main Interface:** The user opens up the app and is welcomed by the Mood startup screen which smoothly transitions to the main screen. The buttons representing each function of the app fades into the foreground one by one along with a notification for a message if there are any. The main page prompts the user to select one of seven actions: New, Calendar, Exercises, Goals, Statistics, Messages and Settings. Our project focuses on both the New and Calendar actions.

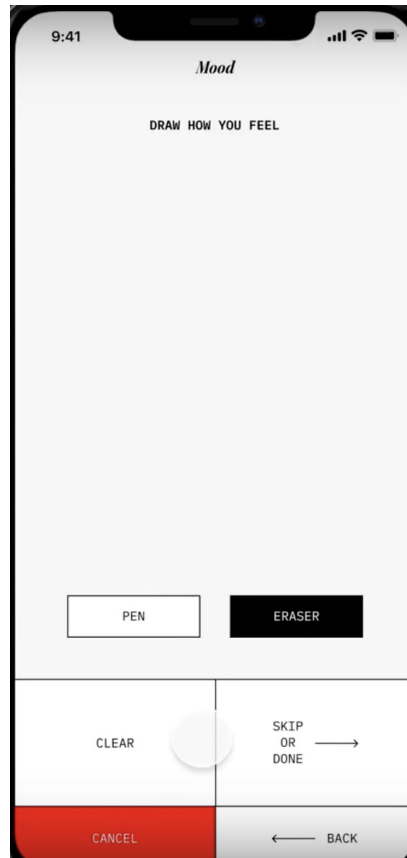




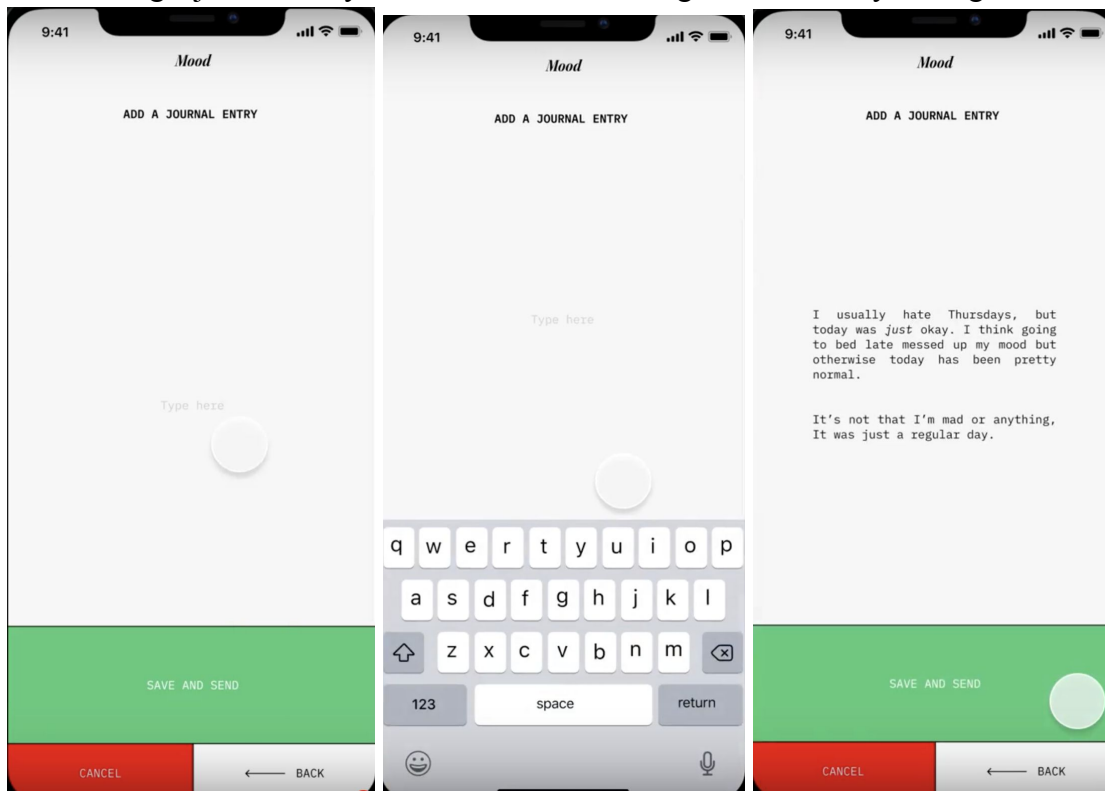
3. **Journaling Walkthrough:** The big white dot in the screenshots below traces the steps of the workings of the system. For the “How are you feeling today?” Screen, the colour of the background keeps on getting darker depicting the severity of the mood/emotion. Darker the background, worse is the mood. Once the user is done selecting from all the options, the user must press the “Next” button to proceed.
 New → Keep scrolling left to look for options to select for the “How are you feeling today?” Screen → Draw how you feel today.



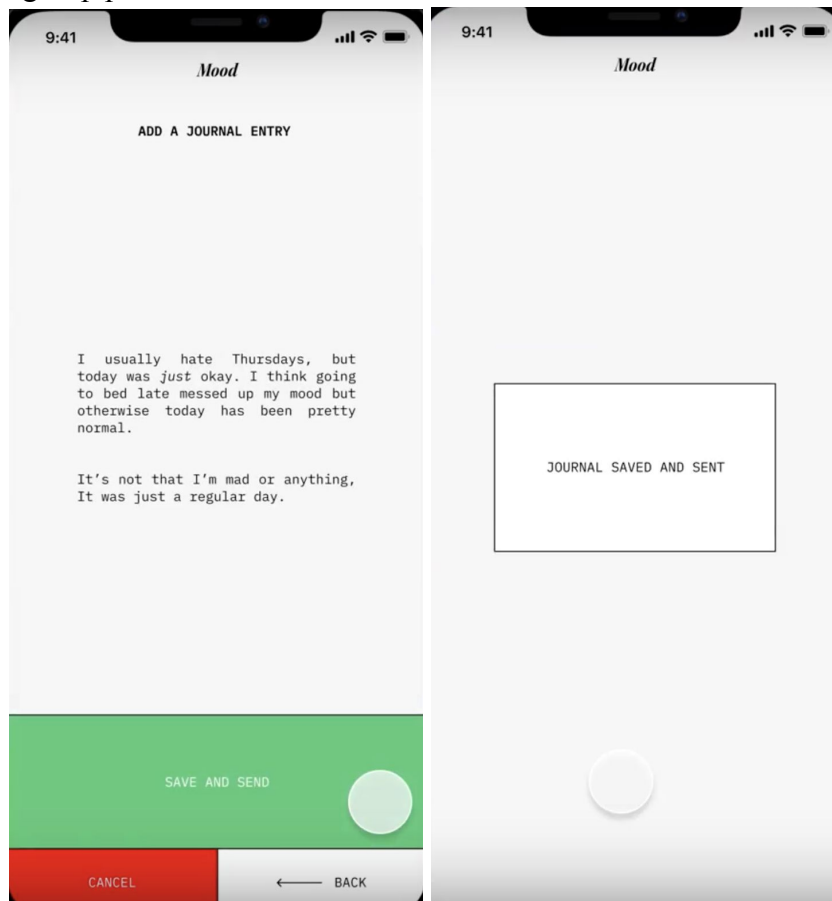
4. **Draw how you Feel:** The next screen that is prompted is the “Draw how you feel today” screen. This screen provides the user with a pen and an eraser as shown in the screenshot below. Users can choose to skip this step if one doesn’t feel like drawing by hitting the “Skip or Done” button.



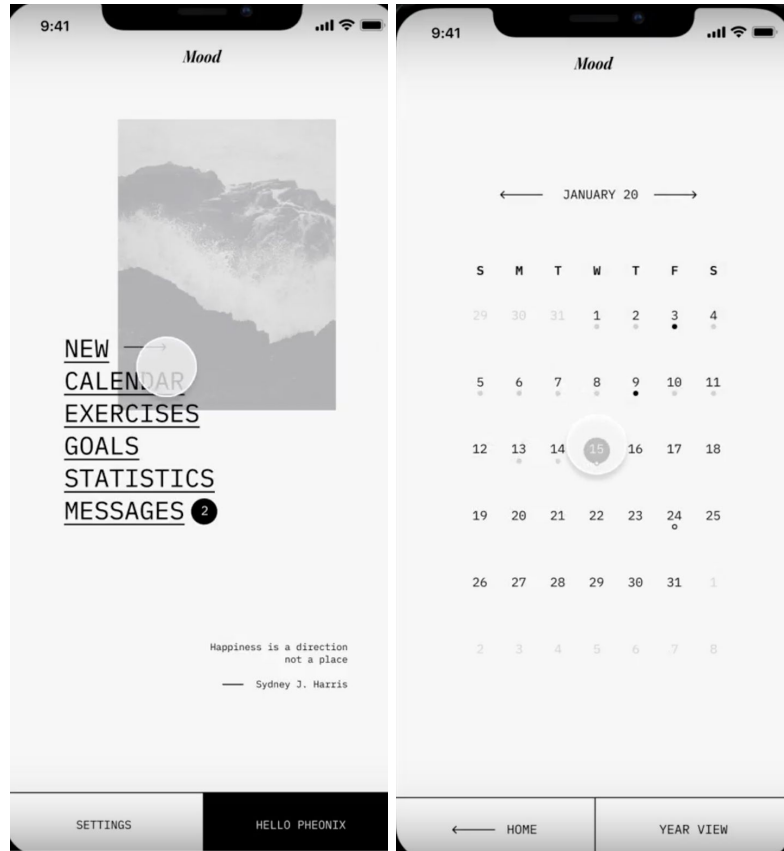
5. **New Entry:** Journaling is the main feature of this application. The gestures involved in creating a journal entry is shown in the following screenshots by the big white dot.



6. **Send:** Once the journal is typed, the user can simply press “Save and Send” and the journal would be sent to the therapist whose information the user had previously entered during the sign-up process.



7. **Calendar:** Calendar is an additional feature of this app. This feature allows users to carry out three actions:
- a. View appointments
 - b. View past Journal entries
 - c. Edit past Journal entries

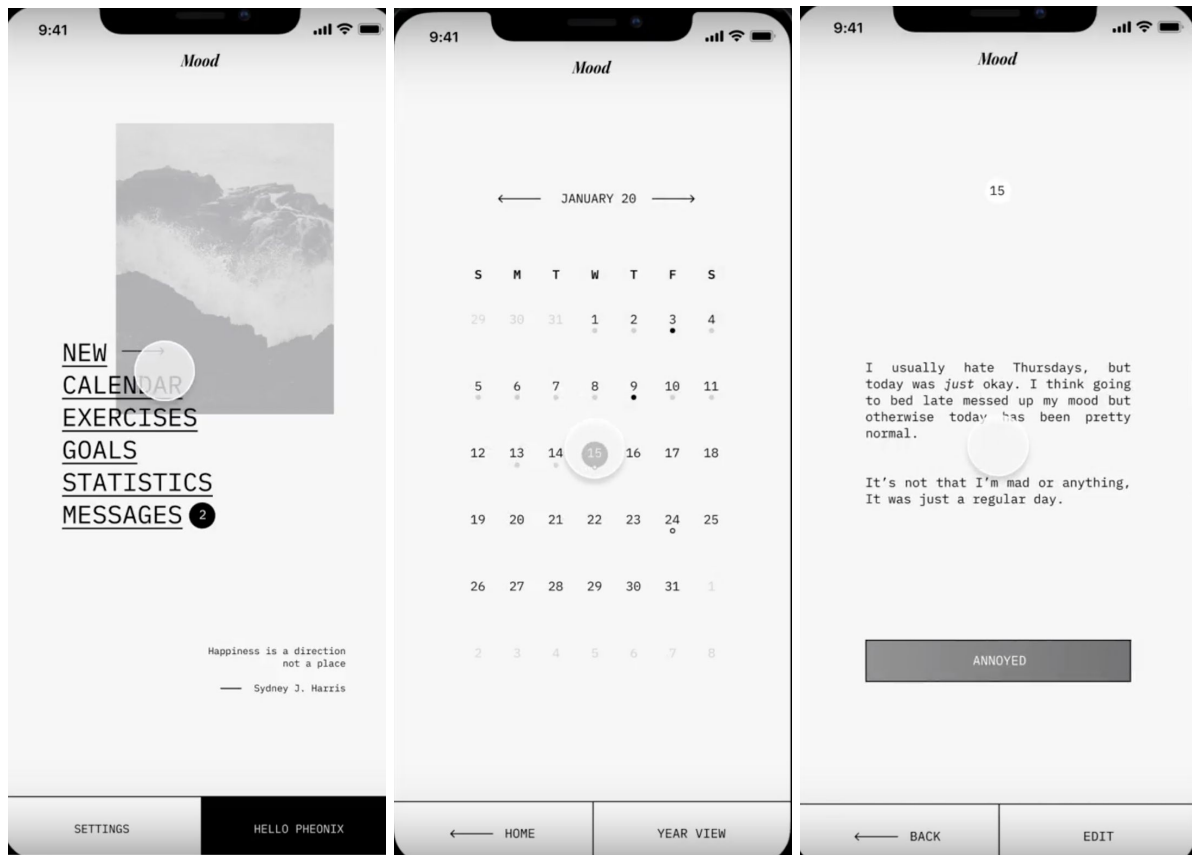


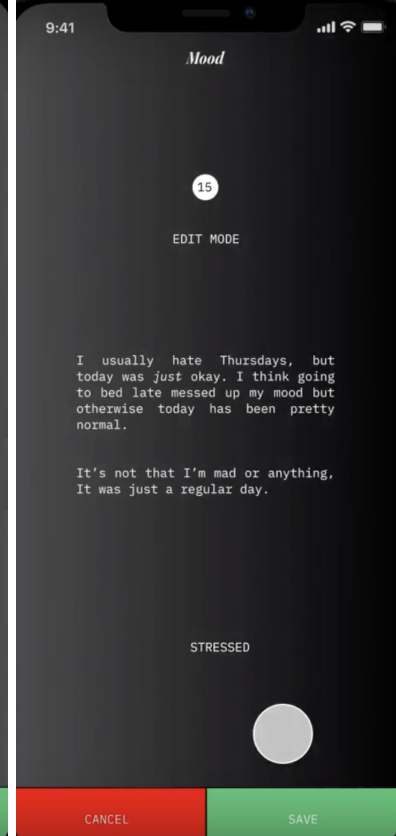
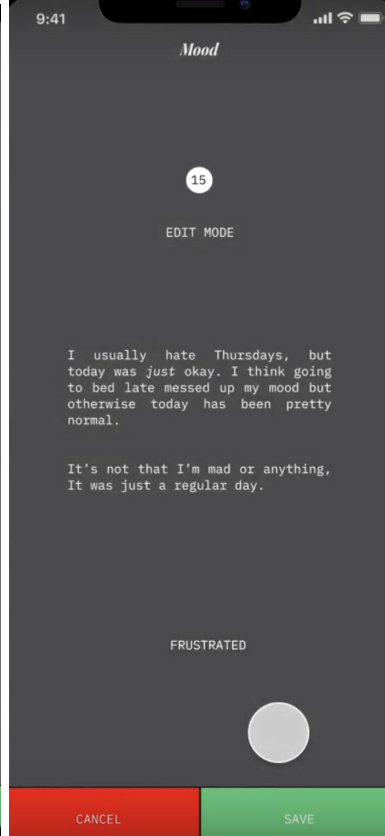
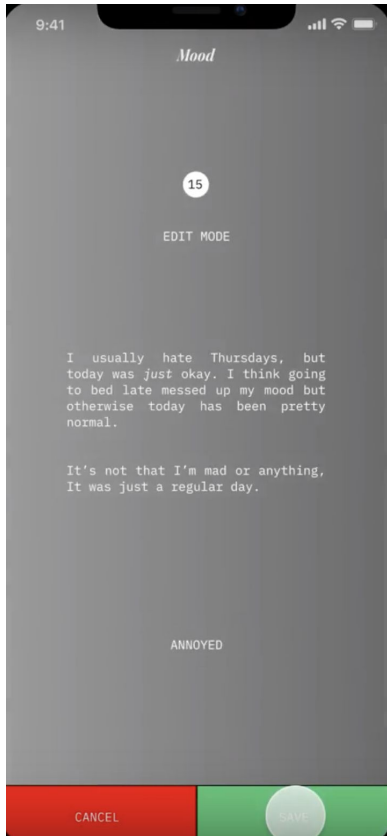
8. **Calendar Key:** The user is shown a complete calendar with indicator dots with the

- 15 Today's Date
- Journal Entry
- Appointment (Completed)
- Appointment (Pending)

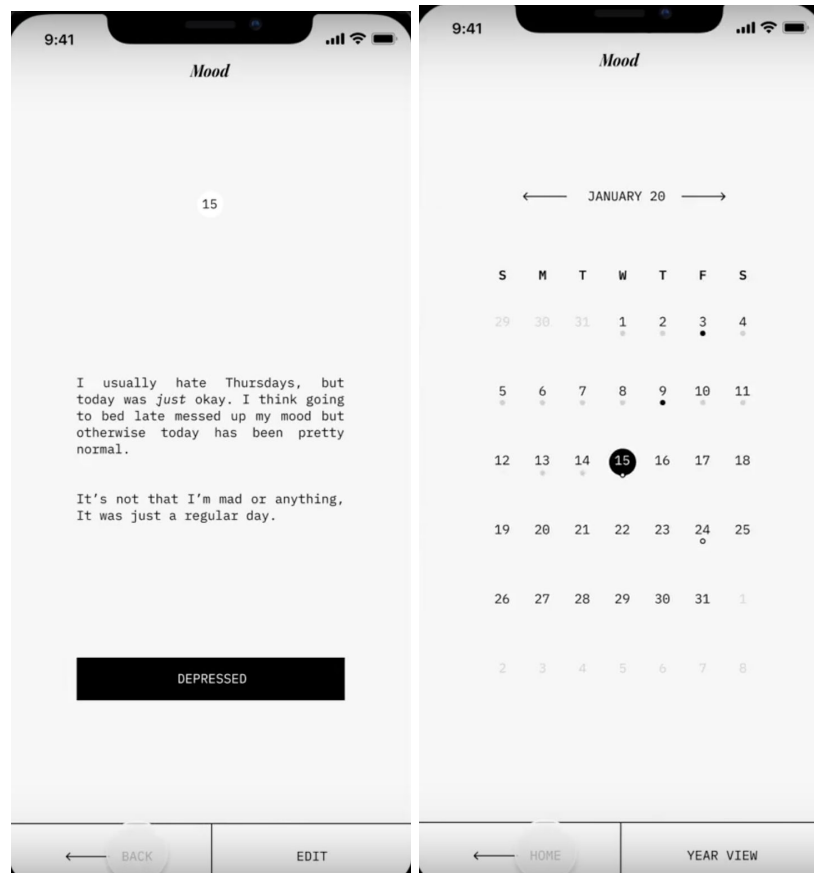
following meanings:

9. **App Navigation:** Home screen → Calendar → Select a date → View/Edit the journal for that particular by Selecting date of interest → Click on Edit (to edit the journal). User can change the selected mood by scrolling left. Users will be able to easily view the transition in the background as the color changes based on the severity of the emotion. → Click Save → → → → to save.





10. **Back Buttons:** Users can then return to the home screen by pressing back and then Home.



Usability Specifications

Introduction

Before proceeding with any final prototype or design, designers should have already outlined the needs of the customers. Based on our initial proposal, we have identified the most important aspect of our solution that can be categorized into the following subtasks: Journal, Calendar, Exercises, Statistics and Messages. Each one of these subtasks are unique and should ideally, have a smooth flow between one another. The team chose to define Usability Specifications as the necessary requirements that will aid in the development of the final product/prototype/solution. This will serve somewhat as a guide for our Evaluation Plan and upon modification, our Final Prototype.

For the current state of our solution, the designers have specified the requirements for each of the apps' categories mentioned below, in such a way that makes the system as a whole, usable and user-friendly while adhering to the common design principles. In addition, we have elaborated

deeper into some of the general categories of usability specification as described in the slides, Learnability, Reliability, Efficiency, and Errors. The reader will begin to notice how each of the features of the app will have components which fall into each of these categories. However, specific numbers for these measurements are not included as they would each vary greatly from user to user. Please note, first-person language is used to put ourselves in the point-of-view of an actual customer.

- I. Journal - As a user, I need to quickly journal my thoughts within 1 step after opening the application. For example, as soon as I chose to write in my journal, the app should smoothly transition into a text editor screen which allows me to freely type anything I need. To maintain the app's integrity, I need for my journals to be saved, primarily by date to allow it to be easily accessed later in the event of a recall. Most importantly, I have to have the ability to share my journal with my medical care professional that I have linked to my account during sign up. All of the above actions should ideally be performed in the page containing my currently-open journal piece.
- II. Calendar - Piggybacking from the Journal, if a journal piece has been saved, I need to access any journal written by clicking the date of interest from a calendar view. For easy interpretation, the calendar should contain some sort of icon like a dot • for those dates that have activity and no dot for those days that do not have any journal pieces or pending appointments. I need to have the ability to schedule an activity with another user of the app or my medical health professional. Upon acceptance, the calendar day should update as Approved or Accepted when an appointment has been approved or accepted. Otherwise, it needs to be noted as Pending.
- III. Exercises - During times of stress and other personal situations, I need to have the opportunity to release my body of mental tension via easy quick exercises. These exercises should be briefly explained on a page containing my exercise options. Some examples include but are not limited to breathing and jumpy jacks.
- IV. Statistics - I need to have a way of measuring my progress. Each step towards a better mental health can be considered milestones, where upon performing a certain exercise, attending a certain session, or simply performing some aspect of the app could be considered as progress towards better mental health. This can be in the form of notifications, in-app awards, badges, or a timeline/journey figure. This subtask is open for creativity.
- V. Messages - I need to be able to see any past messages generated by the application as long as they have not been deleted from the app itself using a swiping gesture. Gestures which allow me to delete a message are open for creativity. However it must be completed in less than two physical gesture actions.

No matter which screen a user is on, they should have the ability to go to the previous page or select from (I-V) in one tap. Consider using a navigation drawer or menu bar at the bottom of each page if the space permits. However, this

Evaluation Plan

Possible Evaluation Techniques

When performing evaluation tests, it is important to hone on a specific aspect of the project that needs to be tested. As a result, there are many different test strategies out there such as usability testing, summation evaluation, formative evaluation, heuristic evaluation, and predictive evaluation. Usability evaluation checks to see how participants will react with the final product. Predictive evaluation includes methods such as MHP, GOMS, KSLM, and Fitts, which all relate the design of the application, which is not entirely what the team needs to focus on. The plan of the team needs to comprise both the overall design and the walkthrough of the whole system from a user standpoint to ensure it works in its entirety. The summation evaluation is used after the product has been finished, which is not a state that the current system is in so this cannot be used in the current plan. Finally, the heuristic evaluation assesses a system based on a rule of thumb developed by Jakob Nielsen. It requires the system to be looked at by many different experts individually so that they can experience the usability of the system from different angles.

As a result, the two most optimal plans would be the heuristics and usability evaluation. They both include the use of testing with many different participants, have a set of guidelines to follow, and are simple to create. In the end, the team decided to go with the heuristic evaluation model since it's more spelled out due to its defined set of principles and ease of adopting into the system.

Heuristic Plans

In order to properly cater to the targeted users of this mobile application, the team developed a systematic evaluation plan specific for this application. To fully test this application, the team came up with multiple plans to thoroughly test the usability of the application.

I. Journal

The standard for success for this test is to see that all page redirects are working and that the journal creation tool is fully functional and can be saved or cancelled. In addition, the user should be able to fully explore the page without an error message appearing due to the streamlined nature of the feature.

This evaluation consists of 4 steps:

1. Identify all ways of creating a journal
2. Explore the journal creation functionality
3. Cancel a journal and check that it doesn't save
4. Save and send a journal and check if it saved

Detailed Breakdown of Steps

To begin with the evaluation, the first step ensures that the user can get a baseline feel of the application and its interface. The team wants to see how a new user explores the app to discover how

they find all the ways they can create a journal and if anything is too convoluted or bland. Step 2 checks to see if the process of the creating a journal is self explanatory and streamlined enough that it could be done repeatedly daily. Steps 3 and 4 are essentially the same, but want to ensure that these functionalities are working properly and in different instances with different users doing them during their walkthrough.

II. Calendar

The standard of success for this test is to see that the calendar is correctly updating with the current day and displaying the user's personal journals and their appointments.

This evaluation consists of 4 steps:

1. Ensure that the calendar is correctly updated
2. Check that an appointment is pending or scheduled
3. View an old journal entry
4. Edit an old journal entry

Detailed Breakdown of Steps

Step 1 checks that the calendar is functioning properly with their account and displays all information that relates to their account. The next step is to explore the user's current appointments or completed appointments. Steps 3 and 4 both relate to testing the journal functionality. The user should be able to view past journals and can freely edit them or leave them as is.

III. Exercises

The standard of success for this test is to see that the user can easily navigate to the exercise tab and view exercises that would help relieve any pent up tension or stress that may be weighing down the user. As a result, the interface should be inviting and minimalistic to be as stress free as possible with simple instructions on how to do each exercise with pictures as needed.

This evaluation consists of 2 steps:

1. Explore possible exercises options
2. Try one of the exercises

Detailed Breakdown of Steps

Step 1 sees how the user will explore the application to get to the exercise tab. Step 2 checks to see if any of the exercises is not beneficial to the participant, not practical to do, or if the instructions of the one of the exercises is not clear enough.

IV. Statistics

The standard of success for this test is to see how they feel by using the app and get some form of inspiration by seeing their journey from the first time they used the app to the present day through milestones for example. In addition, the team wants to ensure that the correct information is being displayed with the associated account.

This evaluation consists of 3 steps:

1. Explore the statistics page
2. Add a new journal and check if the page updated
3. Add a new appointment and check if the page updated

Detailed Breakdown of Steps

Step 1 ensures that finding the page is not hard to get to. The next two steps relate to how adding new journal entries will update the page. Overall, this test is more conversational to explore how the user feels about seeing statistics about themselves and how far they come while going to therapy.

V. Messages

The standard of success for this test is to ensure that messages are being shown properly to the user.

This evaluation consists of 4 steps:

1. Explore the messages page
2. See if old messages are revisitable
3. Check if new messages are highlighted
4. Try deleting a message

Detailed Breakdown of Steps

Step 1 ensures that the interface is not hard to get the page. Step 2 explores to see if all messages are properly loading up when selected and displayed to the user. In addition, step 3 checks that new messages directed to the user are highlighted to show that it's an unread message. Step 4 checks that messages can always be deleted to remove clutter in their inbox.

Heuristic Evaluation of Overall App

These testing plans aim to fully go through the majority of the heuristic evaluation guidelines by constantly allowing the user to explore the main interface and then explaining functionalities as they appear. In addition, the app will cater to the user's language preference and uses colors to highlight specific sections of the system. In regard to user control, this plan wants the user's to be aware that they have full control of the app and can navigate anywhere at any time within the app using any displayed back button or cancel button. Like any other app, the app tries to keep a consistent layout and color palette so no page of the app is off putting to its user. The app also tries to place error messages and prompts near the areas that the eyes normally rest on the screen to make the app as streamlined and self explanatory as possible. Lastly, the tests try to confirm that the app has a unique aesthetic and minimalist design that promotes the app rather than bring it down in quality.

Questionnaire

In order to figure out the user experience of the application; the team's questionnaires would have questions that require answers to be given on a scale of agreement or mood. The team would provide some statements that reflect what the developers hope from the user's experience and provide an answer scale to find out to the degree to which they agree or disagree with the experience.

Examples:

1. This application was easy to use: Agree 1 2 3 4 Disagree
2. This application provides an interactive journaling experience: Agree 1 2 3 4 Disagree
3. Finding a particular application feature was: Difficult -2 -1 0 1 2 Easy

Collecting the general demographic of the users will be relevant in figuring out the types of users that might use our application. Demographics will also help us understand how different groups will experience the application. For example we can evaluate user experiences based on age groups to see how younger groups compare to the more older age groups. The questions will need to be written clearly and must be simple, so that they are not confusing.

Examples:

1. Which age group describes you the best? 20-30 50-60 90-100
2. What gender describes you the best? Male Female

Interview Questions

Online Survey:

1. How likely are you to use our application daily? Unlikely 1 2 3 4 5 very likely
2. Finding a feature of the application is easy. Disagree 1 2 3 4 5 Agree
3. How likely are you to recommend this application to someone else?
Unlikely 1 2 3 4 5 very likely
4. On a scale of 1 to 5, rate the user interface of the mobile application?
Disapprove 1 2 3 4 5 Approve

In-person interview Questions:

1. What do you like most about the mobile application?
2. Which feature would you likely use the most?
3. How often would you use it?
4. Are there features that you think you need but are missing for the in application?
5. How was your experience navigating through the application?