



DEUI Usability Test Report **&** **Platform Transitioning Proposal** **(CA3)**

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ProStudents 2

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Part 1: Usability Test Report

Overview

Upon proposing our solution Student+ to boost students' overall productivity by helping them manage their tasks and spending time doing what they like as well. We created a prototype with our app features to conduct usability tests and receive feedback from users.

This report first describes our methodology used to conduct our tests. Firstly, our planning such as our venue, participants and our roles during the interview. Secondly, the conducting of the interview which is through a detailed expected timeline of the interview. Thirdly for test case and scenarios, there will be a participation task list . Not only that, observer task lists to follow through the user navigating the app as the observer recording notes. The rest is followed by the logistics, set up overview, feedback survey and wireframes ;

Based on the findings we will get in the future, we plan to make modifications that will help users experience . We believe that conducting the usability tests and receiving feedback will improve the **perceivability, predictability, learnability and consistency** of our app . Therefore, improving the experience for users

Methodology

To understand our users' experience when they use our mobile application, Student+, we are going to conduct usability tests to capture their thoughts and reactions so as to gather their opinions. The series of test include video recordings to capture how users feel and their thinking in the process of discovering and screen recording to take down the steps the user takes while navigating through our app. With this, we will be able to see if the functions of our application meet the users needs. Furthermore, to get feedback there will be a survey form for the users to fill . The feedback form will be useful in picking out flaws that we may not be able to recognize. From these feedbacks,

we can identify areas of improvements and make the necessary changes to enhance the users experience with Student+.

Planning

Roles and Responsibility

During the interview, the leader will be the observer who will also be in charge of the screen recording, the interaction designer will be video recording and lastly the writer will transcribe the interviewees' loud thoughts on a document.

Interview Planning

- This usability testing will be held within Singapore Polytechnic.
- It will be conducted at a quiet and conducive area.
- Interviewees will be timed to see how long they will take to navigate through our app.
- this will show us if our prototype is efficient and easy to use.
- Face of the users will be recorded to see if there is any facial expression such as confusion.
- When the user will be navigating through our app, the phone will be screen recording and taking down the steps along with the recording
- Task list for participants and observer recording notes will also be done during the interview.
- There will be 3 interviewees testing our app.

Participants list

Name:	Description:	Venue:
Ancey	A student in SP who has troubles focusing to do work and is easily distracted but wants to do well.	Spectrum
Mathew	A student in SP. Describes himself as a procrastinator	Spectrum
Sidi	A student in SP. Gets easily stressed	Spectrum

Conducting

- Interviewees will be asked for consent one week prior the interview for video recording.
- On the day of the interview...
 - Interviewees will be told the purpose of this test.
 - A printed task list will be given to the participant for reference when using Student+ prototype to complete while using our app.
 - Interviewee will be sat according to the (*Set Up Overview as stated on page 18*)
- Interviewees will have to navigate through themselves.
 - Interviewees will not be allowed to ask testers on how to navigate through the prototype.
- Interviewees will be encouraged to think aloud.
- Interviewees will be asked for consent again for the video recording and interaction designer will start the video recording.
- The screen recording on the prototype will start simultaneously with the video recording

- When Interviewee is ready, there will be a timer/stopwatch to time them.
- Interviewees can discover how to input and submit tasks through the buttons while referring to the task list.
- Encourage interviewees timely when they manage to complete a task.
- The writer will note down interviewees expression and what they think for further research.
- Once interviewee is done...
 - Timer, screen recording ,video recording will stop.
 - A google forms survey link will be given for them to complete.

Test Cases/Scenarios

Participant Task List

S/N	Feature	Task	Required Data	Success Outcome
1	To do list	Navigate to the to do list, insert a task with a due date, the task priority, and the category.	"Do math homework" "Do chapter 2 to 5 for next week"	Task added with deadline
2	Calendar	View "Today" and "Completed" tasks in the "Calendar" function related to the dates	nil	Users able to see tasks inserted and completed tasks
3	Calendar	Mark "Buy grocery" as completed. View completed task.	nil	"Buy grocery" marked as complete.
	Calendar	View All Task	nil	Viewing all task
4	Music	Play music of your choice in the music function	nil	"Music" being played for focus
5	Locking out	Go into focus mode (locking out of phone) either from homepage or from the "Focus" function in the tab bar	nil	Locking out from apps

6	Locking out	Use the different themes, change music, and adjust your break and focus duration	Change theme to "Orange". Adjust focus duration to 60 min. Adjust break duration to 5 min.	
7	Augmented Reality(AR)	End your session. Aim camera at laptop for AR feature, to show points earned , Press home to return to homepage.	A laptop in front of you.	AR feature showing the total points at the end
8	Account	Go to "Friends" Feature. You will be asked to login/create an account.	Details of login already given.	Successful login
9	Friends	Add friend	Friend's iChat email: James@ichat.s p.edu.sg	Successful adding of friend
10	Friend	View Friend's profile/progress		Able to see friend's progress
11	My Progress	View your own progress, levels and duration		Able to see your progress
12	Settings	Explore settings, change account name	Change name to "Martha Hays"	Successful name change

Observer Task List

S/ N	Task	Observer Notes	Task Questions
1	Recognize the different functions in the homepage	This task is intended to see whether user knows how to navigate the homepage.	Are they able to notice the different icons symbolizing the different features.
2	Continuing from Task S/N – 1 From homepage navigate to the to do list, insert a task	This enables users to input a task and customize specific date , time , category and priority to their task which enhances	Are users able to recognize the three button icons and tap on it to cu customize their task?.

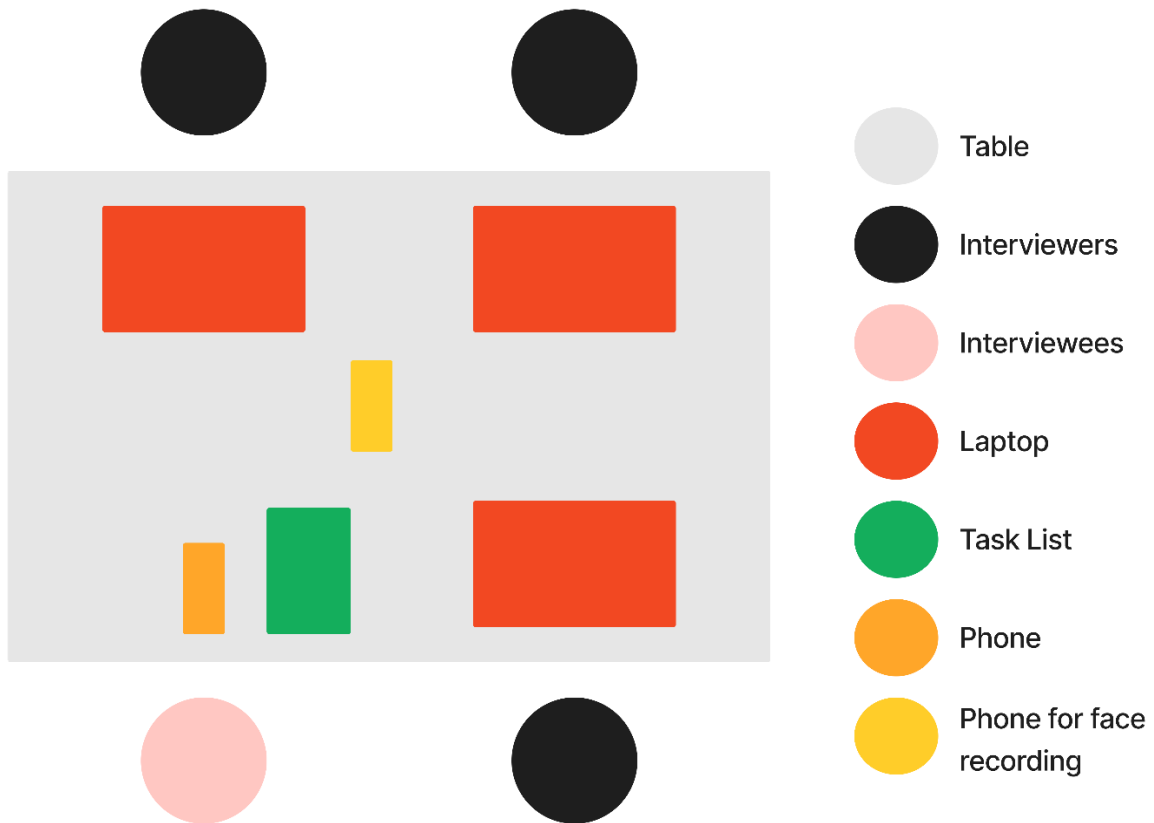
	with a due date, the task priority, and the category.	their user experience with Student+.	<p>Is the additional task button in a different color effective for user to recognize to add more tasks?</p> <p>Is the “X” button visible and understandable for them to tap on it?</p>
3	<p>Continuing from S/N 2</p> <p>View “Today’ and “Completed” tasks in the “Calendar” function related to the dates and then view all tasks in index.</p>	This task enables users to first see their tasks “Today” and “Completed” with the date shown above in the “Calendar”. Users can then navigate back to index to view all the task in one screen as a summary.	<p>Are users able to understand the point of the scrollable calendar above in the ‘Calendar Function’.</p> <p>Is the contrast in colors helpful?</p> <p>Are users able to recognize that Today and Completed are buttons that lead to show the respective task? Do users find the index helpful as they can see all the tasks?</p>
4	Continuing from Sn//3, Change “Buy grocery” to completed.	This task enables users to check an uncompleted task to completed.	<p>Are users comfortable with clicking the circle beside to check off the task to completed?</p> <p>Are users able to recognize that they can check change a task to completed?</p>
5	Go into focus mode (locking out of phone) either from homepage or from the	This task is intended to see whether user knows how to navigate the homepage.	Are they able to recognize the focus (lockout feature) from

	"Focus" function in the tab bar.		the navigation bar or Homepage?
6	Continuing From S/N 5, Use the different themes, change music, and adjust your break and focus duration	Provide users the convenience to customize their lockout session with different choices of music, themes and control their duration to optimize their productivity which enhances their user experience with Student+.	Can they spot and recognize there is a navigation bar below with the different settings? Is the navigation bar easy and convenient? Do the different variety of choices of music and themes give a sense of excitement and uniqueness to the users.
7	Continuing from Task S/N - 6 End your focus session	Allows the users to leave lockout session halfway should they do not want the whole duration.	Can they recognize where to tap to leave the lockout halfway? Do users find the confirmation feedback to stop focusing useful?
8	Continuing from Task S/N – 7 Aim camera at laptop for AR feature, to show points earned. Return to homepage after.	This task is for users to earn points after their lockout session. Points will be shown on the book or laptop they scan.	Can they recognize the function of the AR camera? Are they able to recognize tap on the Home icon button to return to Homepage?
9	Continuing from Task S/N – 8 Go to the "Friends" function from homepage	This task is intended to see whether user knows how to navigate the homepage.	Are they able to recognize the friends feature from the Homepage?

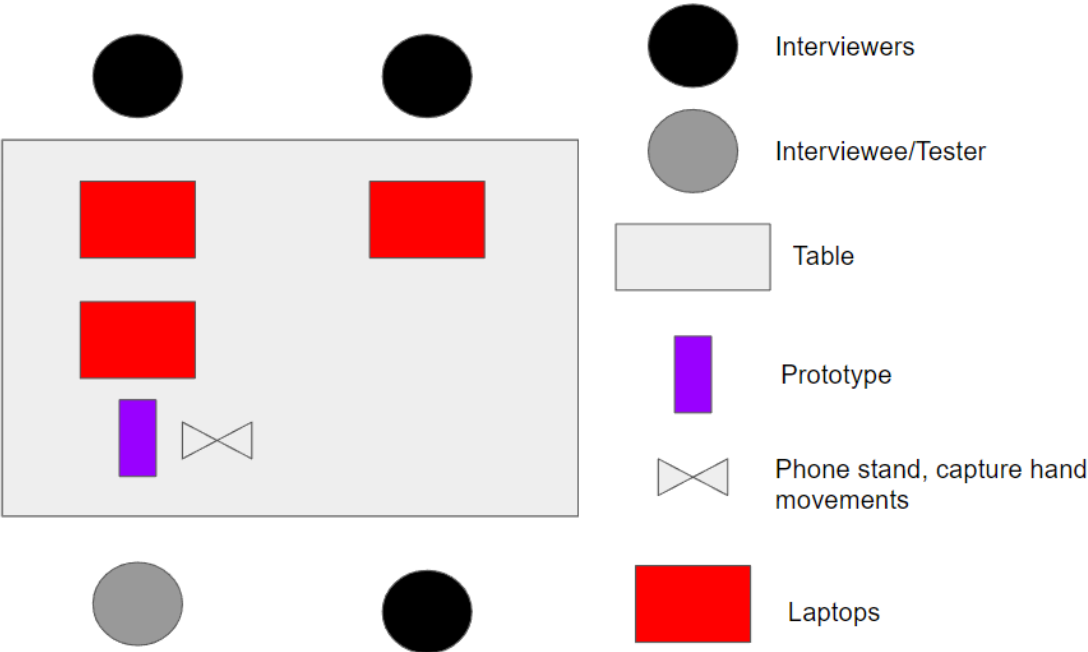
10	Continuing from Task S/N - 9 Create an account and add friend or remove friend.	This task is intended to see whether user can create an account easily.	Do they find it convenient create and account with the sign-up details.
11	Explore settings, change account name	The task is intended to see if users can successfully change name .	Is it easy and convenient for users to change name

Changes to Usability Test Planning

Set-up overview Before



Set-up overview After



Findings & Recommendations

This section takes into account our findings and recommendations from our usability testing. We conducted personal analysis and then came together as a group to form an overall analysis to come to our final points of improvement for Student+.

Usability Testing Personal Analysis

Low Bao Tian

Doing my analysis, I found out that:

- Users took a long time navigating in the friends function, buttons are most likely unclear and users do not know where to press.
- There are too many pages from to do list homepage to calendar, users will be confused on where they are and what they are supposed to do.
- Some buttons are too small, for example, the arrow button in progress page
- User is confused in the navigation bar with “Profile”, while trying to complete the task “View own progress” user clicks on profile which leads them to the settings page.
- Button AR function is not clear as the home icon is white and is blended in with the background.

Recommendation:

- Make UI cleaner, not to clumpy and overlapping
- Combine to do list page and calendar page
- Change icon and name to a gear icon and “Settings” instead.
- Add a solid color block behind the home icon

Singh Sakshi

Ancey Ester Santos is a 17 year old female student from the Information Technology course in School of Computing. She is a first year student who has stated that she is not able to keep up with their assignments due to the lack of time management within herself which makes her the perfect candidate to use this app as well . She also mentioned that she uses many mobile apps on her phone ranging from entertainment , content-sharing to communication which is in contrast to our productivity app that is more task driven and organized . Although Ancey is well versed with navigating other mobile applications , she was also confident in navigating a different and new application like Student+ . This is Supported by her response in the feedback form where she gave 4 out of 5 the difficulty of navigating through the Student+ mobile prototype ranging from confusing to very clear .

Generally , Ancey was a very receptive interviewee and she gave constructive criticism and positive feedback during the interview which was well balanced and useful to Students to work on improvements on our applications.

Ancey appreciated the overall look of our prototype .She described it as pleasing to the eyes and the ui looked aesthetic .Specifically, when doing Task one (insert a task with category , priority , time) , she appreciated the preservability of small labeled icons to clearly indicate on what she can do while inserting a task . She enjoyed many features such as the creativity of the lockout feature AR scan, point system and the simplistic layout of the todo list .She was also surprised that she enjoyed choosing different color themes for her lockout session which we were happy to hear . This was supported by her response of giving 4 out of 5 in the overall look and feel of student+ mobile prototype

However there were also setbacks of the application that lacked perceivability and predictability . I observed there were some points of frustration and confusion that I noticed while Ancey was navigating through the app through her facial expressions and body language .Firstly , She was not sure if 1 was the most important or least important .Secondly , when submitting the task she was unable to determine the arrow meant to submit a task as there were many elements. Therefore there was a lack of predictability with the labeling of 1-10 and arrow . However , after a while she became comfortable with navigating the to-do list .Secondly, there was a lack of perceivability during Task 1 [insert a task with priority , category and], and Ancey was unsure about the level of priority ranging from 1-10. Not only that , during task 7 of adding a friend , I had

difficulties about the intractable elements such as buttons and was confused about the purpose of those elements saying “ I don’t know how to add a friend”. After she figured it out she said “Is it done”.This caused her to hesitate to continue navigating the app . Hence , I analyzed there was not enough feedback such as pop up notifications to clear to the user that the task is done which shows there was a lack of learnability.

Based on her post-survey feedback form, she gave a 4 out of 5 on the relevance of student+ to its content ranging from unsatisfying to satisfying . She gave a 5 out of 5 on recommending student+ to other students. She also stated she would recommend Student+ to others as stated by her response of yes instead of no. Showing that the features we implemented are functional to improve the productivity of students . Ancey found it easy to follow the instructions ranging from hard to easy and navigate the app as well ranging from confusing to very clear . For areas of improvement she mentioned the consistency of the alignments . She also suggested to add more predictable buttons for the friends because she only managed to add a friend by luck and curiosity.

Overall , the usability testing gave insights to pick out flaws we can improve regarding the interaction design principle especially predictability , perceivability and learnability . With the usability testing with ancey we are able to pick out flaws that are not clear enough to complete certain task and receive recommendations and praises for what we did right which we are very grateful for. At the same time ancey was well versed with the app and was able to complete the usability testing independently with no assistance.

Pravin

During the Usability testing i found out that,

- Users had trouble locating the home button in the ar section, SomeButtons are small and secluded making it hard for users to see.
- User wasn't able to recognise some buttons on how to enter the friend profile and give friend requests as they thought that the search result for friend search is only a display bar.
- Users observed some typos on the navbar as it was inconsistent.
- During the task of going to the calendar the user was not able to realize he was already in the calendar.

Recommendations:

- Make Buttons more bigger and recognisable
- Add the Button name such that the user understands the meaning of the Button as soon as they see it.
- Correct the typos.

Questionnaire results

Low Bao Tian

What was the difficulty of following the instruction of using Student+? *

	1	2	3	4	5	
Hard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Easy

What was the difficulty of navigating through Student+ mobile prototype? *

	1	2	3	4	5	
Confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Very Clear

What was the overall look and feel of the Student+ mobile prototype? *

	1	2	3	4	5	
Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Satisfied

Relevance of the Student+ mobile prototype to content? *

	1	2	3	4	5	
Irrelevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Relevant

What are the area of improvements? *

Make it more cleaner and clearer. The layout is okay, it also needs to be smoother when clicking on the widgets provided.

What were the things you liked in the app? *

Quite useful for a student like me. Convenient too

Would you recommend Student+ to others? *

	1	2	3	4	5	
Not likely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Most likely

Do you think Student+ will improve your productivity? *

☒ Yes

☐ No

☐ Other: _____

Singh Sakshi

Post Interview Questionnaire.

Email *

ancey.22@ichat.sp.edu.sg

What was the difficulty of following the instruction of using Student+? *

	1	2	3	4	5	
Hard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Easy

What was the difficulty of navigating through Student+ mobile prototype? *

	1	2	3	4	5	
Confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Very Clear

What was the overall look and feel of the Student+ mobile prototype? *

	1	2	3	4	5	
Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Satisfied

Relevance of the Student+ mobile prototype to content? *

	1	2	3	4	5	
Irrelevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Relevant

What are the area of improvements? *

just minor things like spelling and alignment , then perhaps for the focus feature , users should be able to customise their theme break and period before the lockout session starts .Some clarification needed when adding friend. Like quick tups such as "add a friend:

What were the things you liked in the app? *

very clean and minimiliasticc , having fun and colorful icons was a nice touch . Navigation was easy to understand and the experience was smooth

Would you recommend Student+ to others? *

Not likely 1 2 3 4 5 Most likely

☐ ☐ ☐ ☐ ☒

Do you think Student+ will improve your productivity? *

☒ Yes

☐ No

☐ Other:

Pravin

What was the difficulty of following the instruction of using Student+? *

	1	2	3	4	5	
Hard	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Easy

What was the difficulty of navigating through Student+ mobile prototype? *

	1	2	3	4	5	
Confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Very Clear

What was the overall look and feel of the Student+ mobile prototype? *

	1	2	3	4	5	
Unsatisfied	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Satisfied

Relevance of the Student+ mobile prototype to content? *

	1	2	3	4	5	
Irrelevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Relevant

Relevance of the Student+ mobile prototype to content? *

	1	2	3	4	5	
Irrelevant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Relevant

What are the area of improvements? *

Enlarge the home button at the ar camera page

What were the things you liked in the app? *

The styling and consistency

Would you recommend Student+ to others? *

	1	2	3	4	5	
Not likely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Most likely

Do you think Student+ will improve your productivity? *

☒ Yes

☐ No

☐ Other:

Summary of Analysis

Overall Usability Test Rating	4.08
Highest Rating	4.5
Lowest Rating	3.75

Overall , the average rating is satisfactory and above average with a rating of 4.08 out of 5. Although the rating is around 4 , the usability testing has helped us pick out common areas of improvements that we plan to make modifications using the 5 interaction design principals so as to elevate our users' experience . At the same time users found it easy to navigate through with an average rating of 4/5. Furthermore they appreciated the overlook of the an average rating 4.2%.

After analyzing the results and feedback as a team , we realized we did not have enough interactable elements for the user to seamlessly navigate through the prototype. Furthermore , there was a lack of perceivability in common areas of confusion. For example, the adding friends task (Task 9) and exiting after the Ar scan of the laptop/book (Task 7).

We plan to modify the layouts of the screen with more seamless navigation interactables with improved perceivability and predictability and clearer feedback pop ups to improve the learnability of users' experience by giving them clear instructions by the app . Not only that, the pages the users had difficulties with will be reevaluated to reconsider better layout and design to decrease the time taken as much as we can to not waste their time .



All 3 of the users would recommend Student+ to their own friends despite the flaws in our user interface and prototyping. They also stated that they strongly agree that an application like student+ would help increase productivity among students . This indicates the demand for an application like student+ among the student community and that we have effective features that meet our users' needs to stay on task , have good time management and be productive .

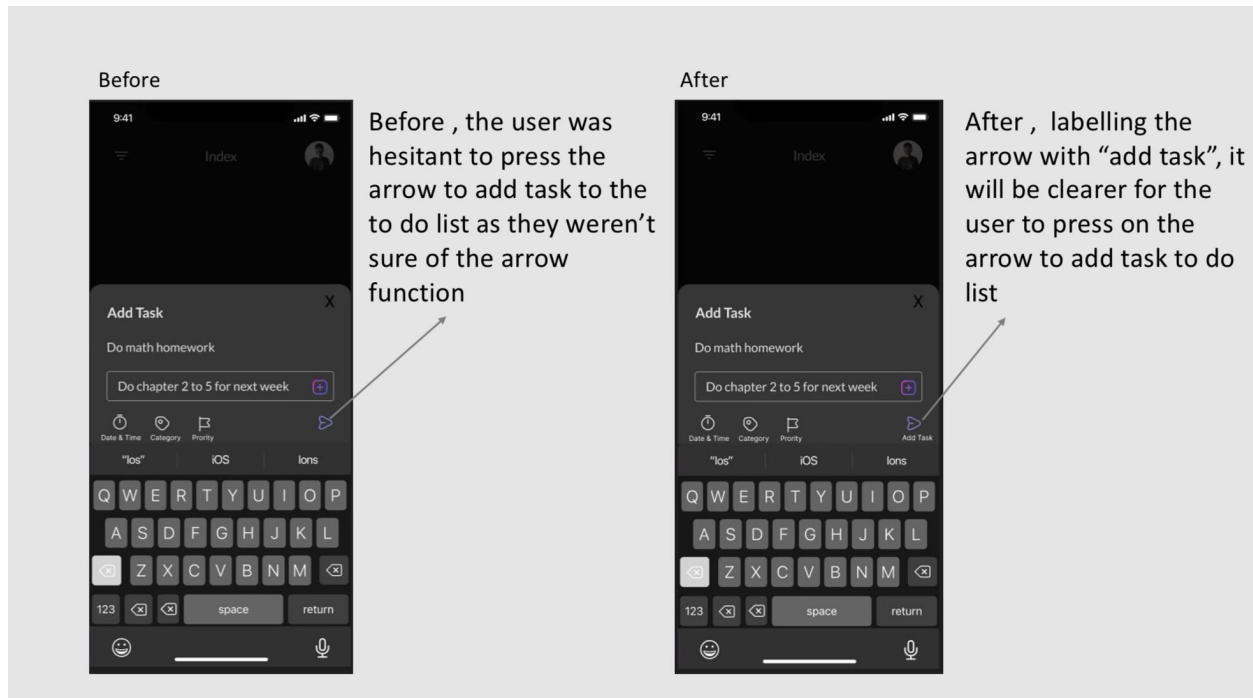
These are our **final findings** from our collected group analysis to improve our application usability , design and user flow to achieve a seamless navigation for our future testing . This will be reflected in our improved screen layouts with justification for how it improved user flow.

Findings	Plan to Action
Unsure of the arrow in the Insert Task page .	Label arrow with instruction
Not clear if 1 or 10 is the highest priority in the set priority page.	Create Legend of priority number
Navigation bar “profile” is confusing as users mistake it to access personal progress when it is to access settings.	Change icon and label to settings.
AR home button not visible in AR scan page	Use solid background and brighter color to make it visible
Arrow too small in progress page.	Increase width and height of the arrow.
Suggestion to move customisation of lockout before start lockout	Changes made accordingly are reflected in screen layout.
View friends button was not predictable enough for users to know it is to view friends progress.	Use a more predictable button with clearer instructions.
Users are not able to add friends. User unsure if they finished adding friend	Add friend button and more feedback on completion of add friend task.

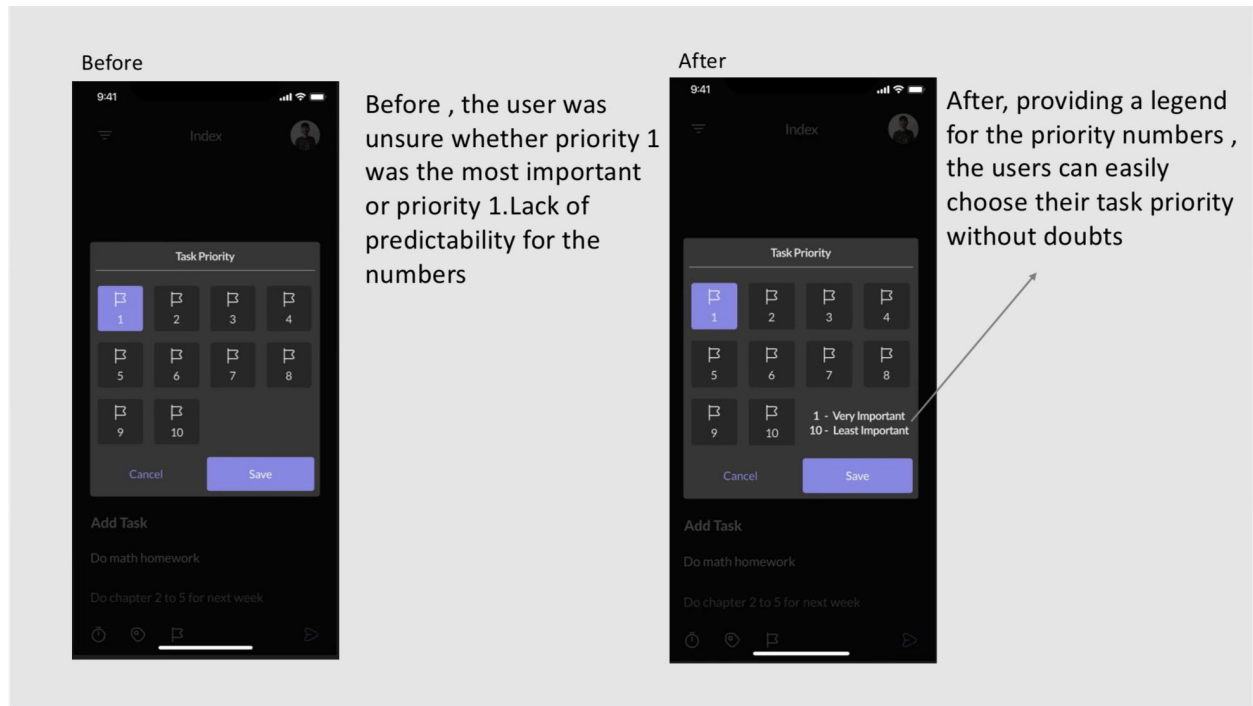
Improved Screen Layouts

With reference to our findings from overall analysis derived from our collected personal analysis from the usability testing, we improved our screen layouts to improve the usability of Student+

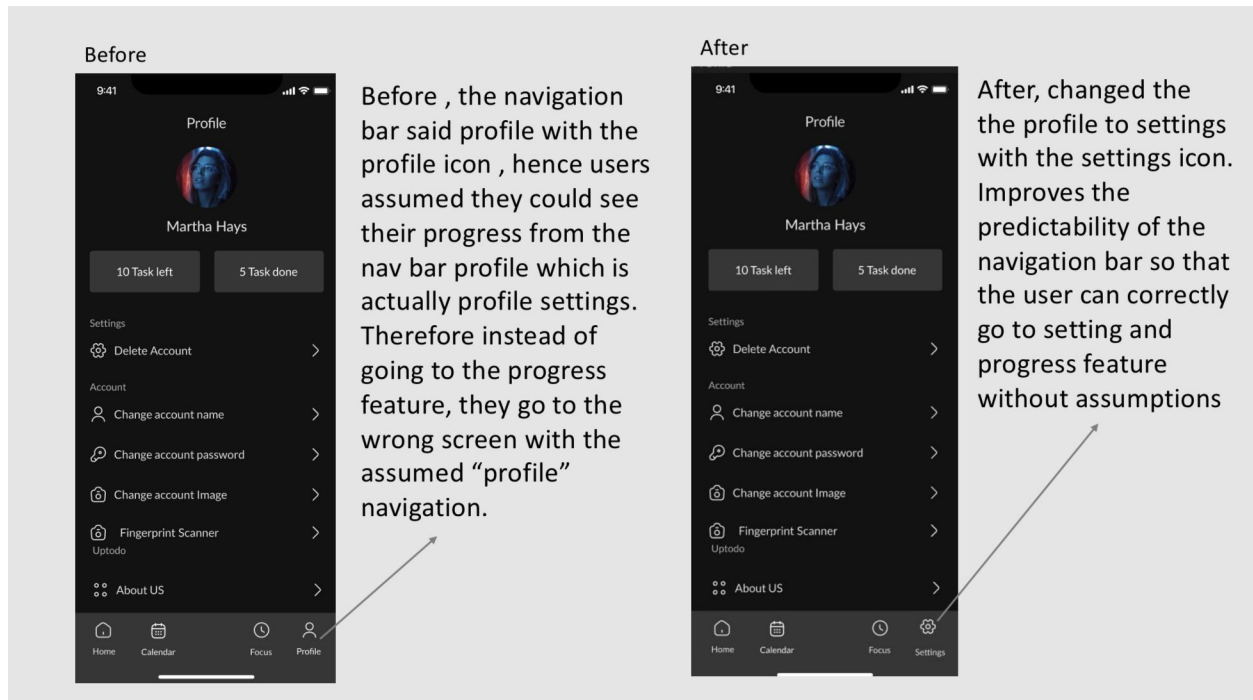
Insert task - SAKSHI



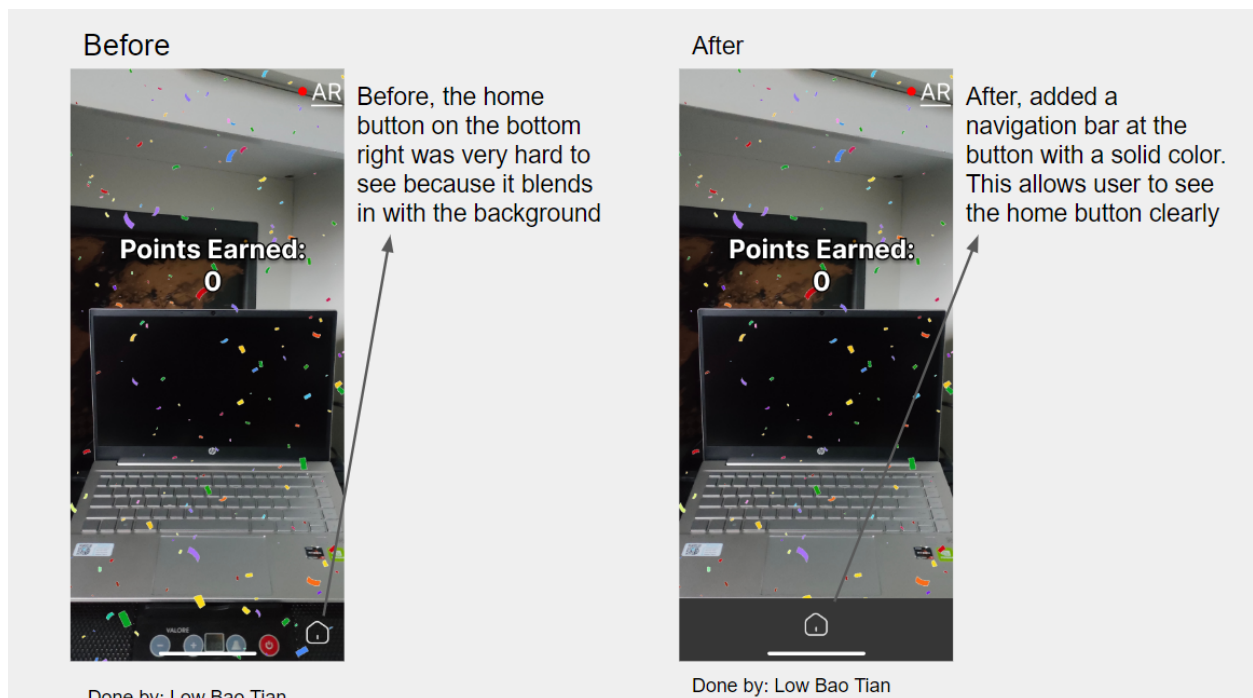
Set task priority - SAKSHI



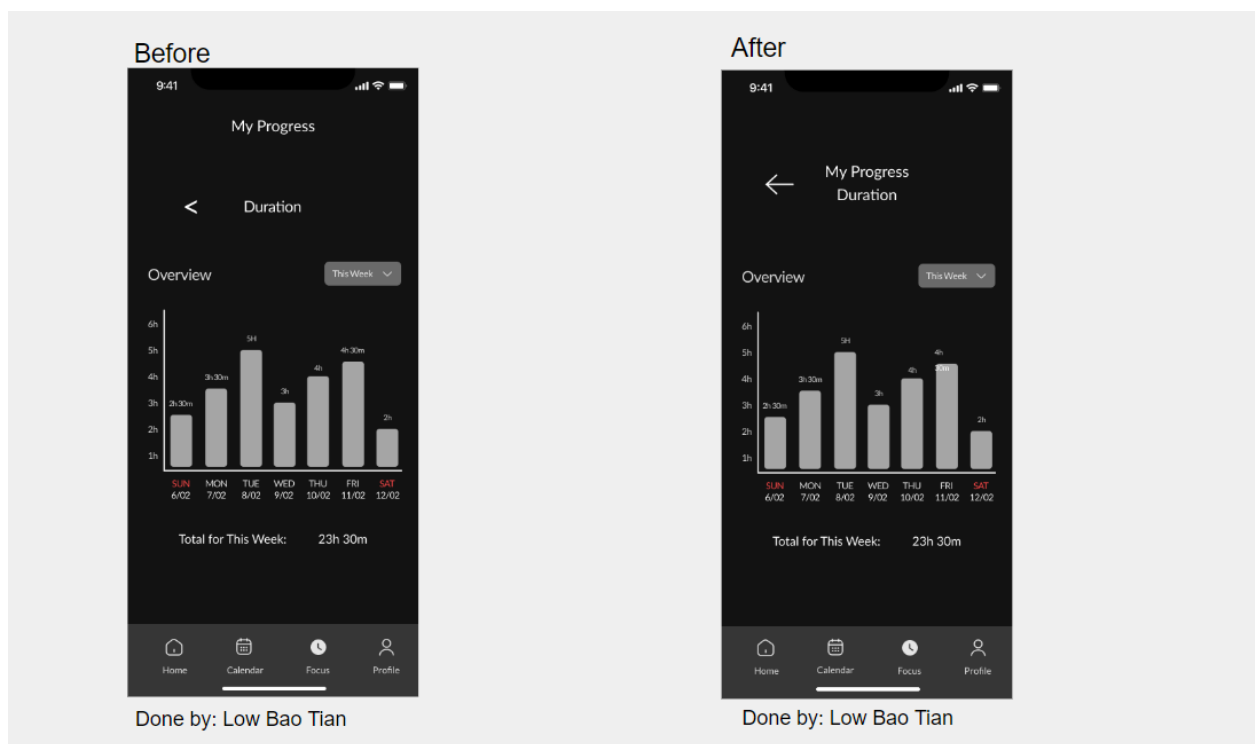
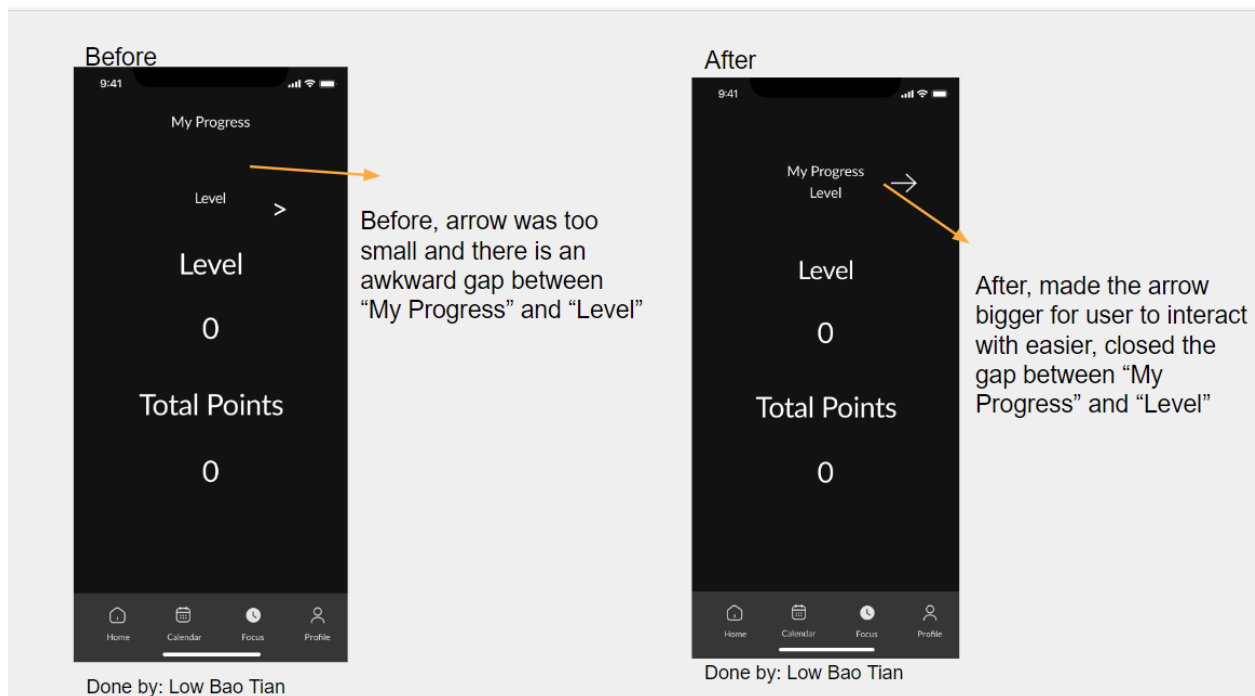
Navigation bar “Profile”- SAKSHI



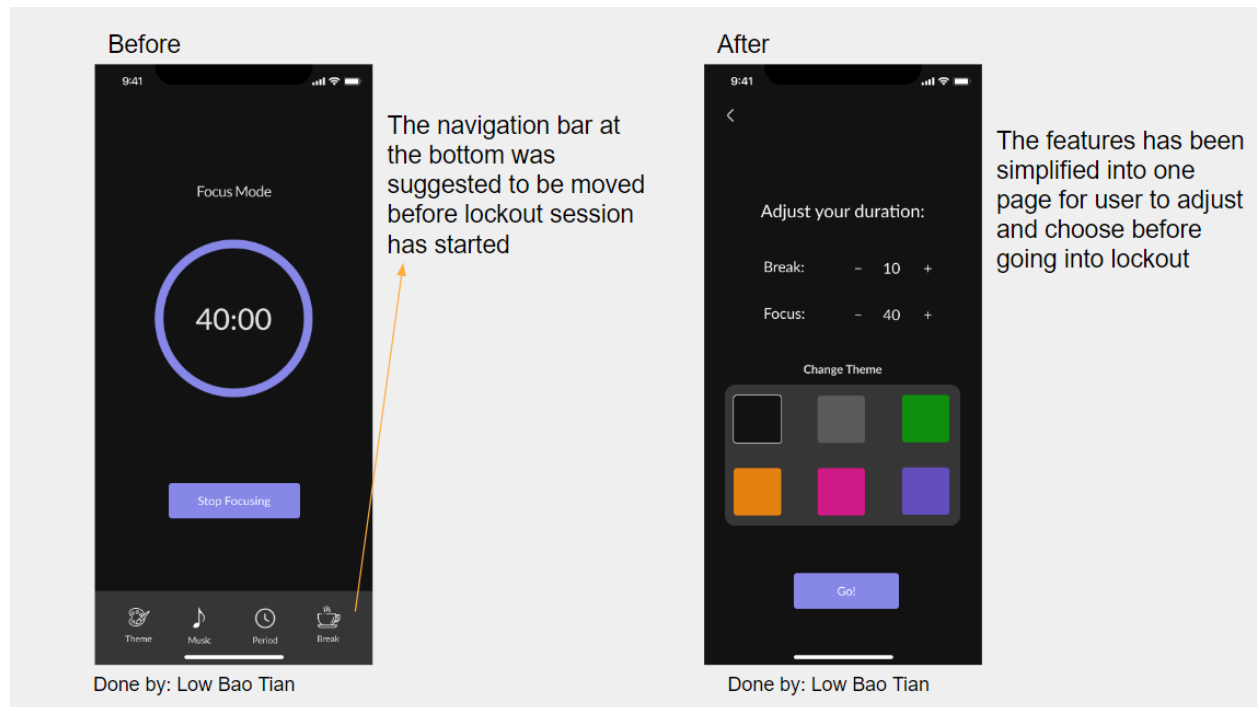
AR home button



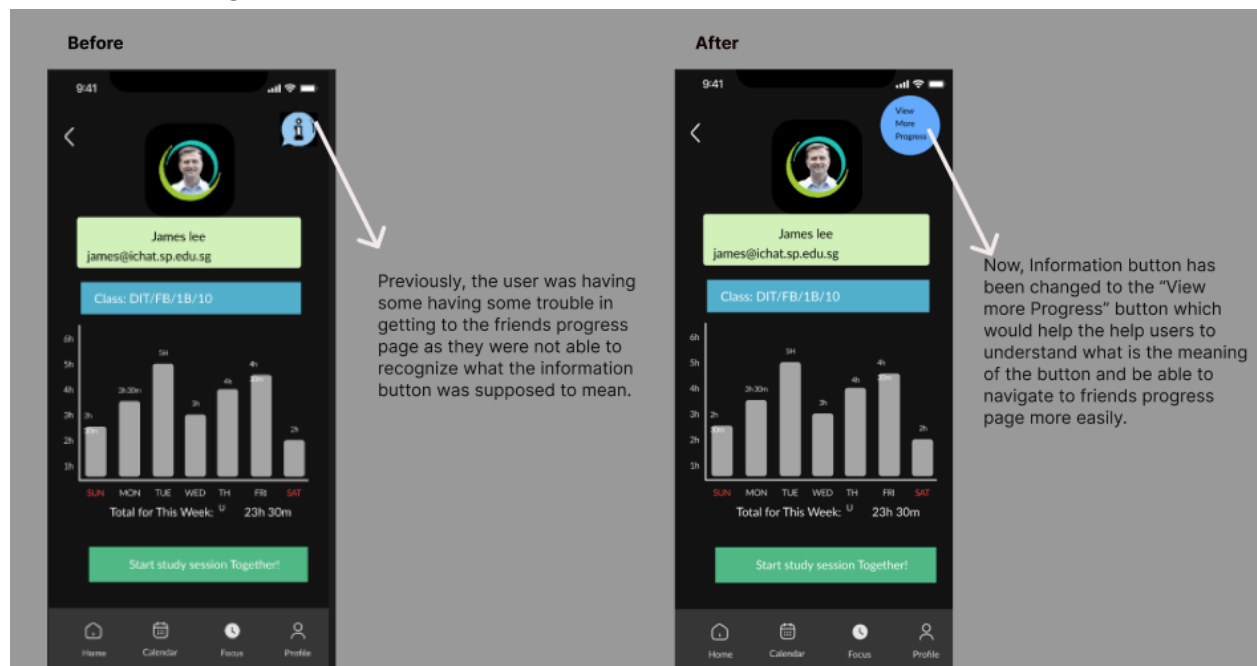
View own Progress



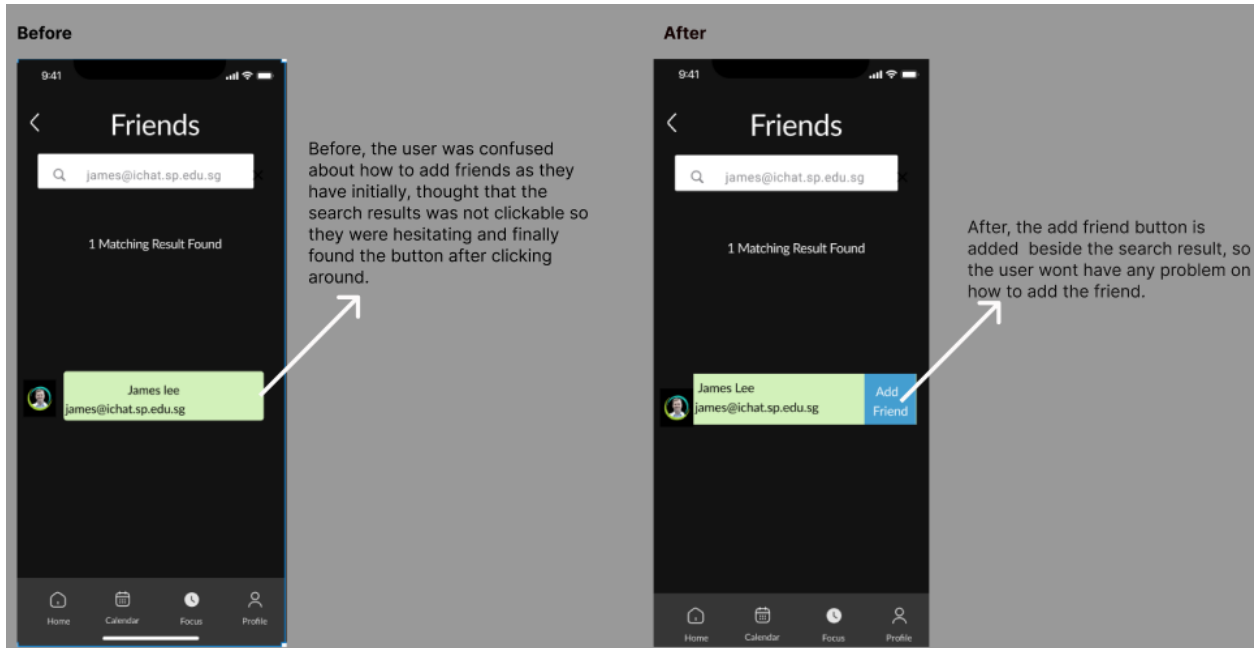
Navigation bar at Focus Mode



View Friend Progress - Pravin



Add friend - Pravin



Part 2: Platform Transitioning Proposal

Introduction

With increasing usage of tablets, applications are found on both mobile and tablets. Many students own more than 2 devices in this day and age. Hence student+ will be available on tablets as well to reach out to a larger audience.

Post completion of usability testing , we used the findings, feedback and recommendation we received to create an improved version of student+ on tablet wireframes . We discussed as a team and came to a conclusion of **7 features** that will improve the usability of our app and elevate the productivity of the users of student+.

We used figma as our wireframing tool. The 5 interaction design principles such **perceivability, predictability, learnability, feedback and consistency** were followed through to make sure we provide users with smooth navigation and easy usability of the app . Not only that, tablet wireframing gave us the opportunity to include more features and functionalities on one screen. As a group we used the increased space to our full use to achieve Student+ goal.

Proposed Tablet Features

1. Light/Dark mode
 - a. What it does: Able to change interface to dark or light for user preference
 - b. Reasoning : Different users have different preferences. Such some prefer light mode as it can display information clearer in a more visual way. Contrast of images are seen clearer in light mode. However others prefer dark mode as it is easier for them to read in low light with less eye strain . Dark mode reduces the light emitted by the screen. Therefore users can customize and have their own mode that they would want when navigating the app.
2. Picture Log AR feature
 - a. What it does: When using AR feature, after successfully pointing at a laptop/notes, the phone will take a picture and keep it in a log
 - b. Reasoning: Users can keep progress of all their lockout session achievements through a picture which makes the experience for the user

more personal and engaging . Furthermore,Users can keep progress on what they have been studying through the pictures as well. Therefore this feature makes our app more user-centric as the picture log motivates users to continue the progress they have been making .

3. Screen Share (Friends)

- a. What it does: When friends are in a session together, they can screen share to view each other's screen. Since many students are nowadays doing their work/notes on tablet when they are on study session together
- b. Reasoning: Increased productivity as they can share screens to share notes , resources and do project work to complete their task .

4. Calendar Search Function

- a. What it does: Search for dates in the calendar when setting a task in to do list
- b. Reasoning: To reduce the time taken to find the date wanted by the user to set the task in the todo list . A calendar search function can quickly search the date and set the task date instead of the user having to swipe till they find their month and date . Therefore effectively making the task simpler and more convenient for the user.

5. Tutorial of how to use the app

- a. What it does: Brief tutorial on the different functions of the app
- b. Reasoning: As we have 6 features with sub functions , we realized a tutorial would give the users a brief idea on how the application works . This is so that users are not overwhelmed by Student+ features and know the functions available for them to use to increase their productivity better. The tutorial reduces the chances of users misunderstanding certain functions that are new and unique to Student+ such as AR scan after the lockout session and more.

6. Group Feature

- a. What it does: Let friends form group and assign tasks for the whole group to accomplish
- b. Reasoning: This allows the group to be productive together, chat and share notes with each other. Hence elevating productivity and users can have a more enjoyable and shared educational experience .

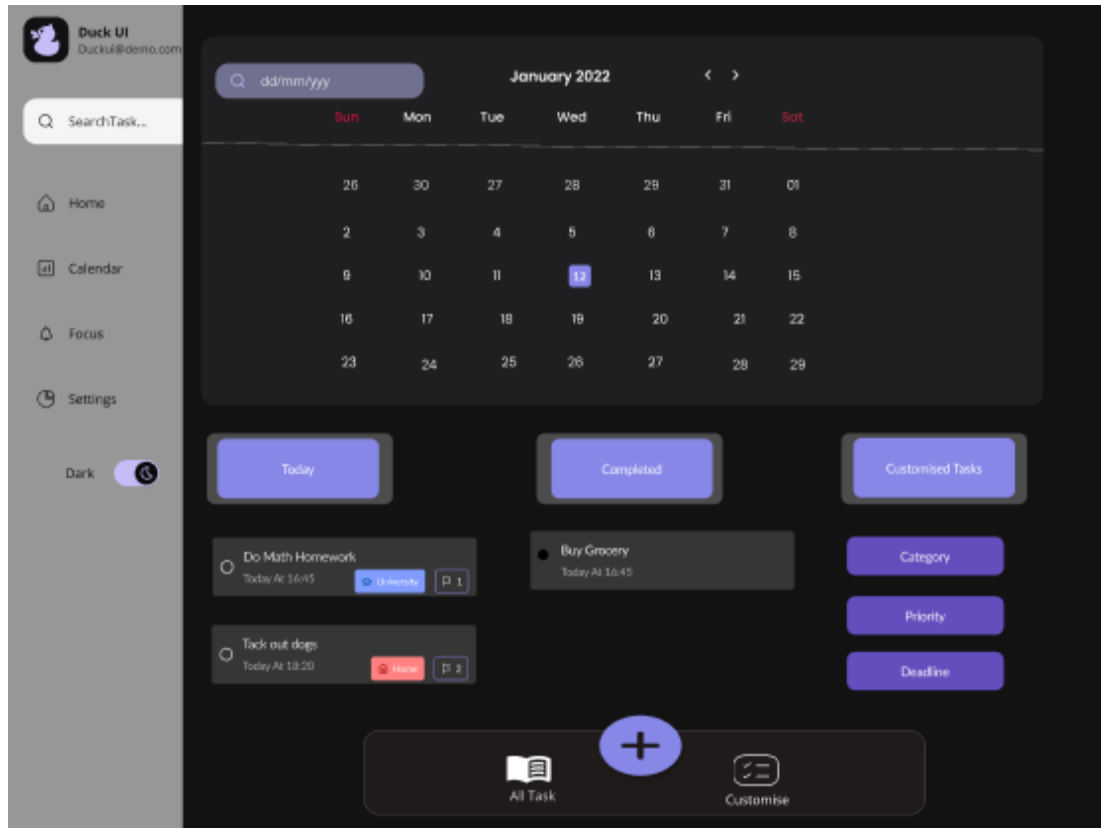
7. Search Task

- a. What it does : Lets users immediately search their task instead of going to the Todolist function and search their task
- b. Reasoning: Users may want to access the app to see a specific task for the deadline or more information on the task . Therefore instead of users having to access the To do list feature and searching task , a search task function is now available in profile and navigation bar on screens.

Proposed Screen Layouts

To do List function

Main Additional Feature : Calendar search function



How the screen works

Combine 4 mobile to do list screens and tasks to one tablet screen.

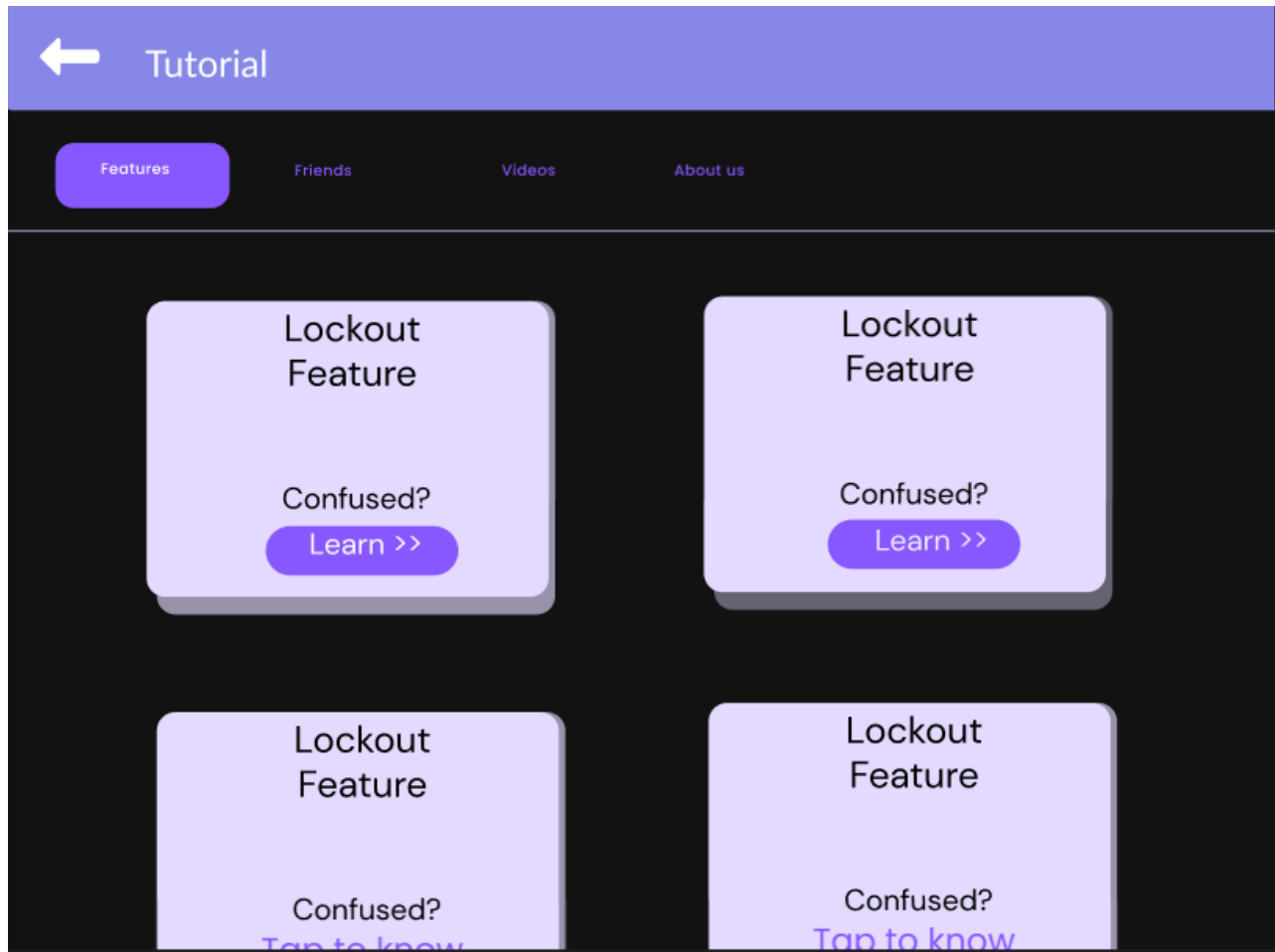
When users navigate to the To do List function , this is the screen they will see. Firstly users can insert a task by the “+” button and proceed to customize their task with category , priority and time by the “customize” icon .

Secondly, users will be able to view a full calendar . Upon clicking on any of the dates , “Today” tasks and “Completed” tasks will be shown. Furthermore in this improved version of the To do list screen , there is also a calendar search function where users can search a specified date in *dd/mm/yyyy* format for better predictability of the button to immediately select a date instead of swiping manually till the user can select the date. This calendar search function is also available when setting “Deadline” to the task.

Users can also view all tasks upon click of “All Tasks” . Side navigation bar is also available

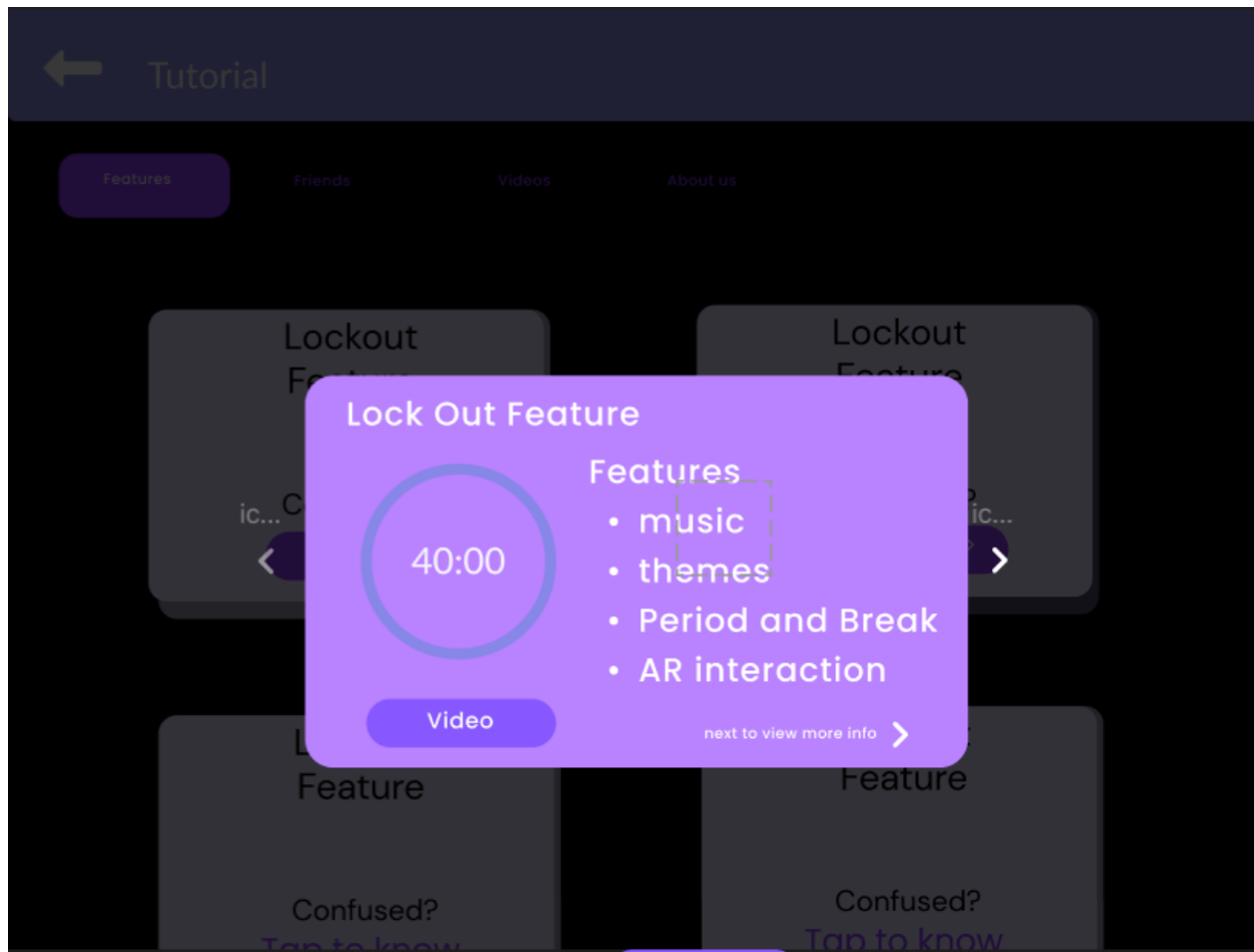
New Feature : Tutorial function

1. Tutorial



Upon click of the learn button , it leads to a pop up screen with more information about the selected feature .Shown below “Tutorial Pop Up”.

2. Tutorial Pop Up



How the screen works

When the user navigates to a tutorial via the homepage, these are the 2 screens they will experience .

1. Tutorial Screen

When navigating the tutorial screen , the user will be able to choose between features, Friends, videos and about us . Upon click of the features tab , they will be able to see all the features card looking structure. More features can be seen upon scrolling down . A learn button is on the card for users to click and learn more about how to use the feature. They will be navigated to Tutorial Pop Up.

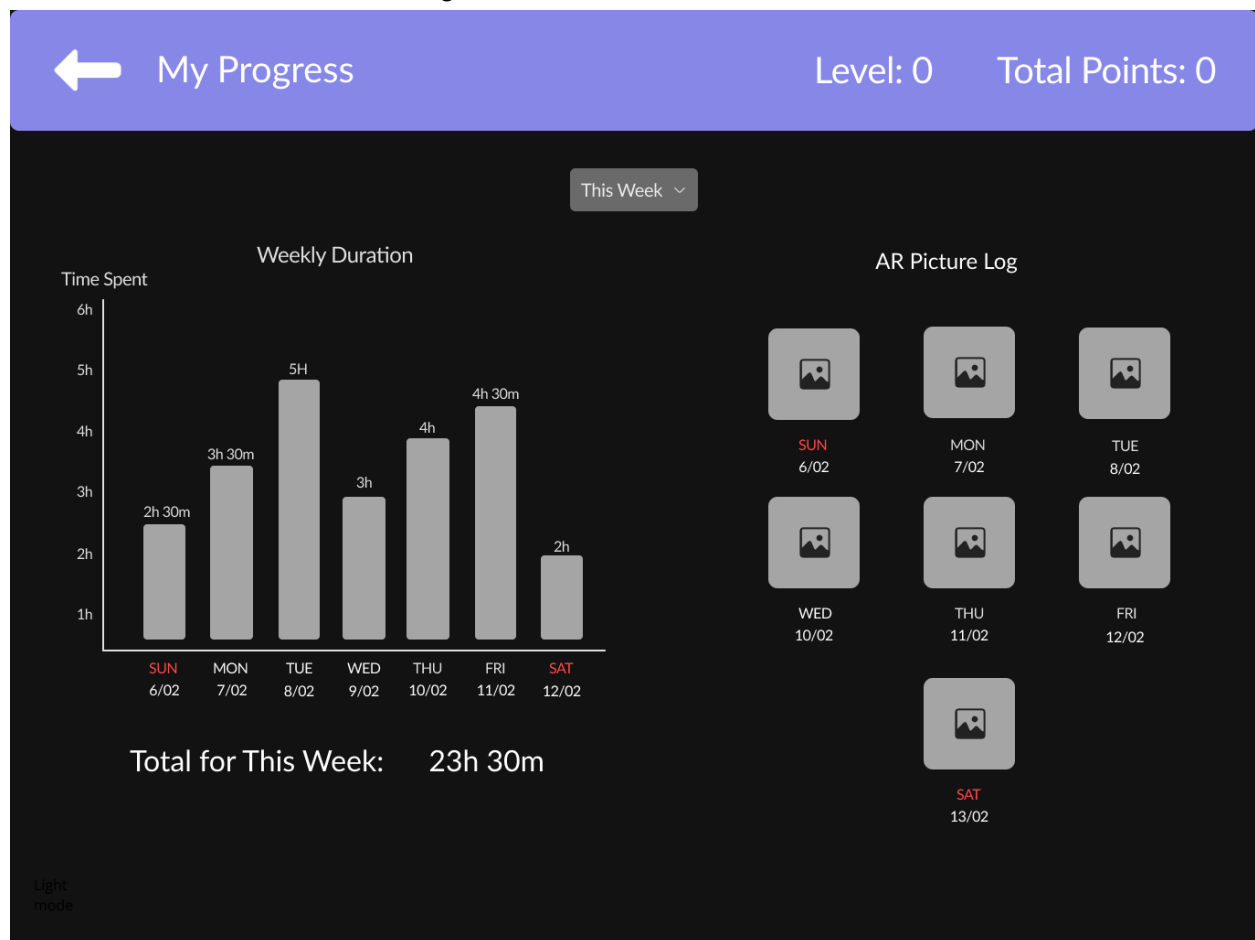
2. Tutorial Pop Up screen

When the user taps the “Learn” button , a sliding card will pop up . On the sliding card there is information for users to know more about the feature the function offers. There

are other interactable elements as well such as the “video” button for users to access a video tutorial. To improve perceivability , arrows were used to indicate that the user can press on an arrow to move to the next sliding card for more information.

Progress

Additional Feature: AR Picture Log



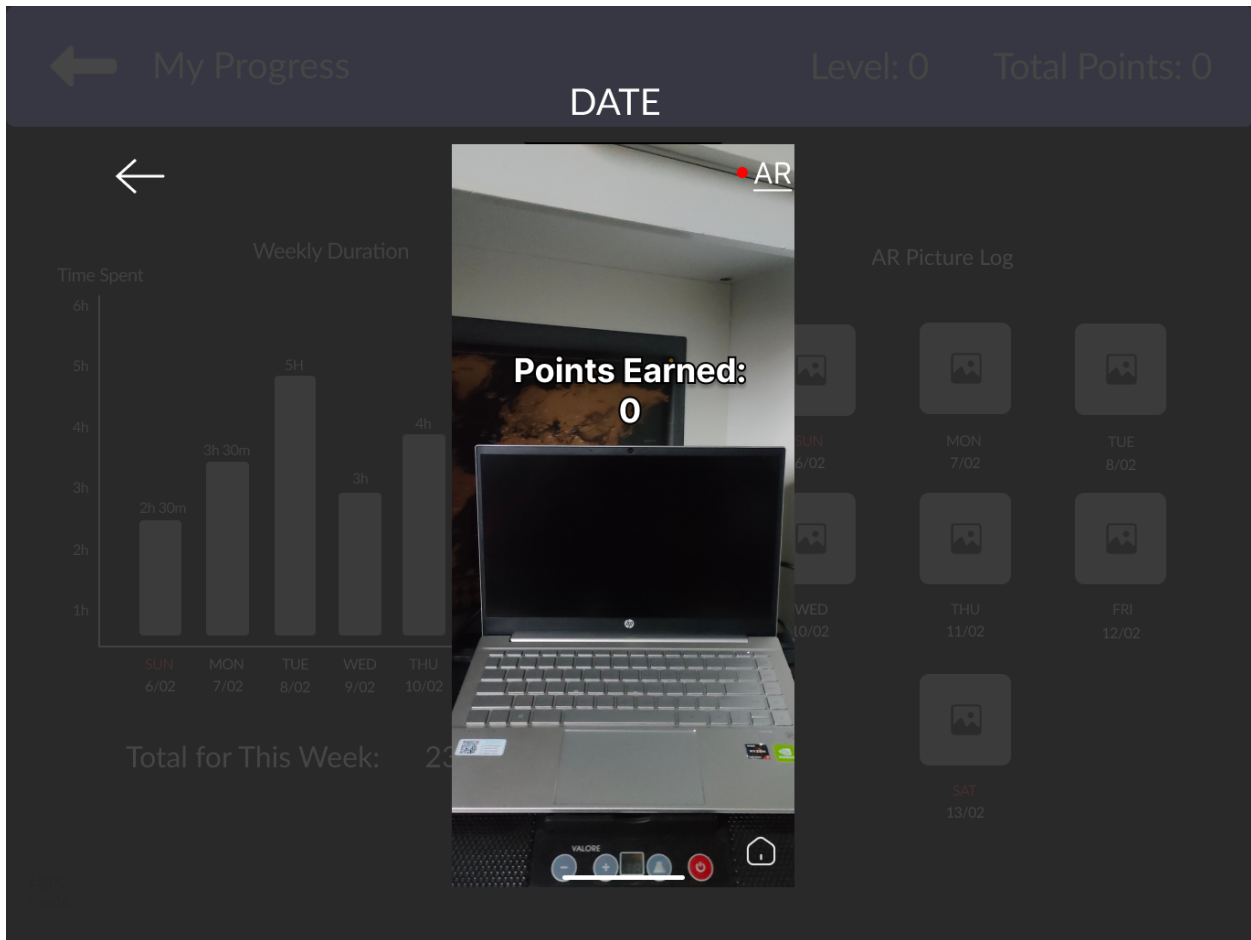
How the screen works

When the user navigates to the My Progress function, they will be brought to this page. They can see their own Level and Total Points earned on the top left of their screen. Followed by their weekly duration and AR Picture Log side by side. This allows more information to be displayed on their screen without having to navigate to more screens to view other information. Clicking on the “This Week” dropdown in the middle will show a calendar for users to choose the week they want to see further details.

1. AR Picture Log

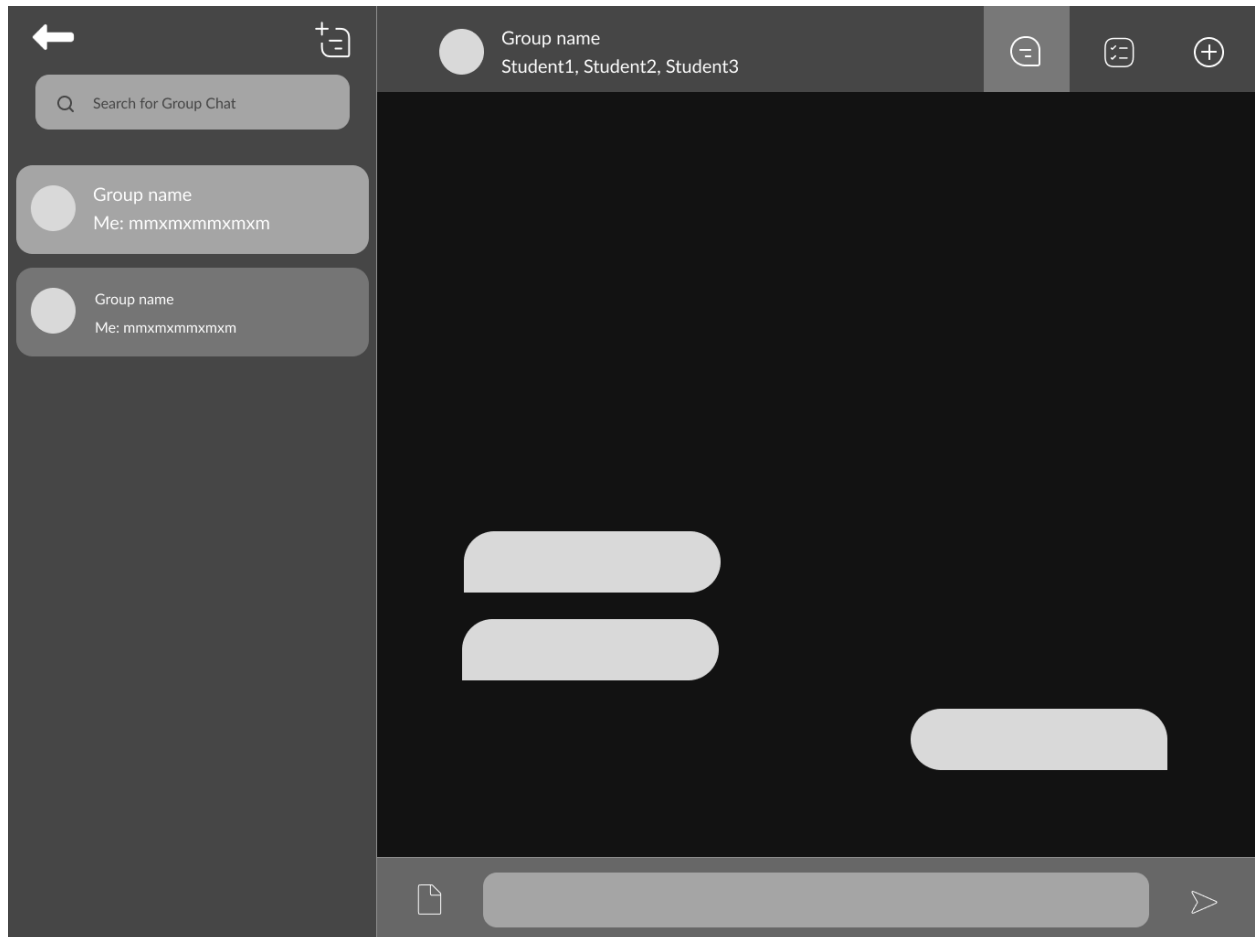
When clicking on one of the picture log, the picture saved will be shown on the screen

Picture shown on screen.

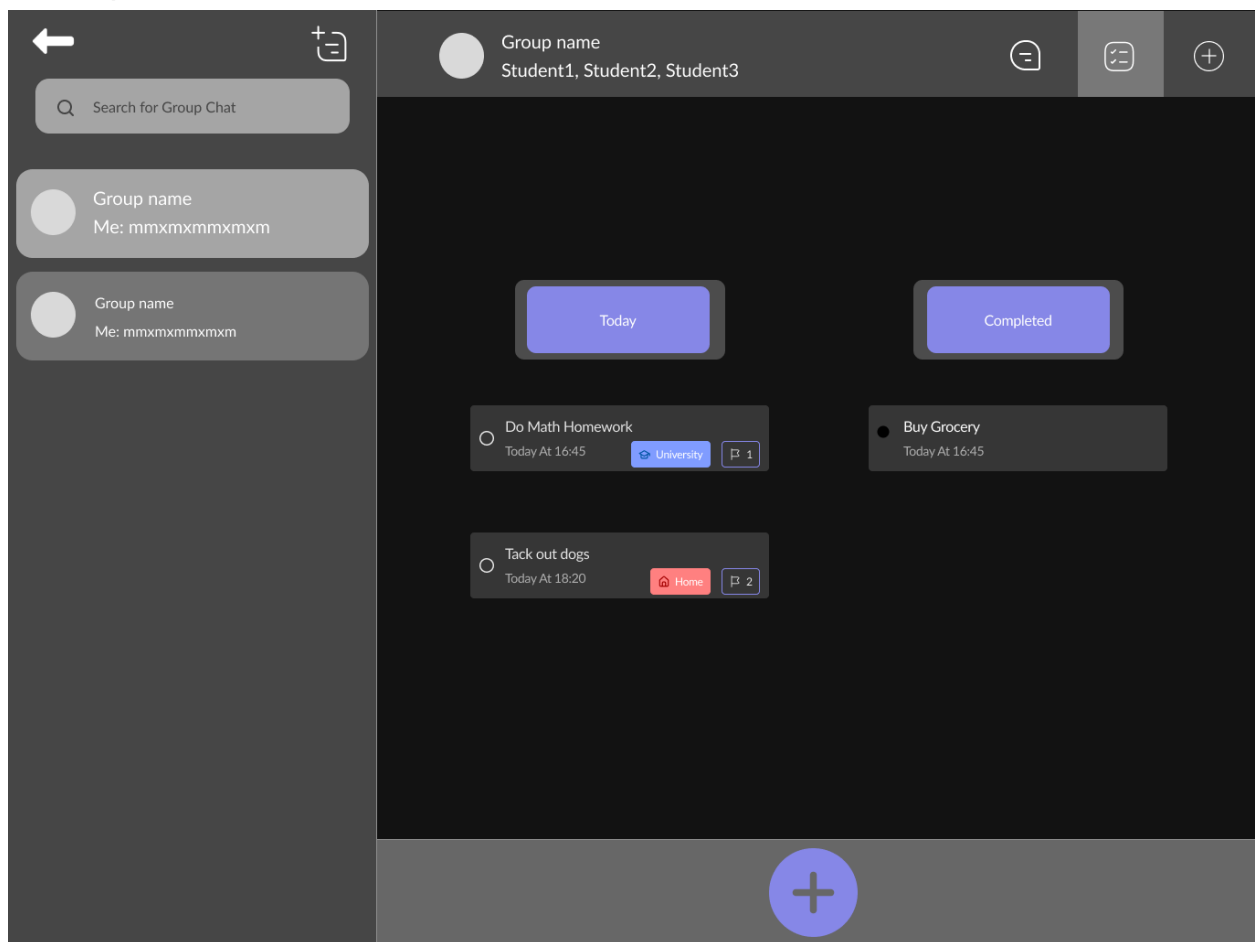


New Function: Group Feature

1. Group-Chat



2.Group-Add Task



How the screen works

Users can form groups within their added friends. Once formed they can chat and send notes to each other. Formed groups can also give themselves task to complete as a group.

1. Group-Chat

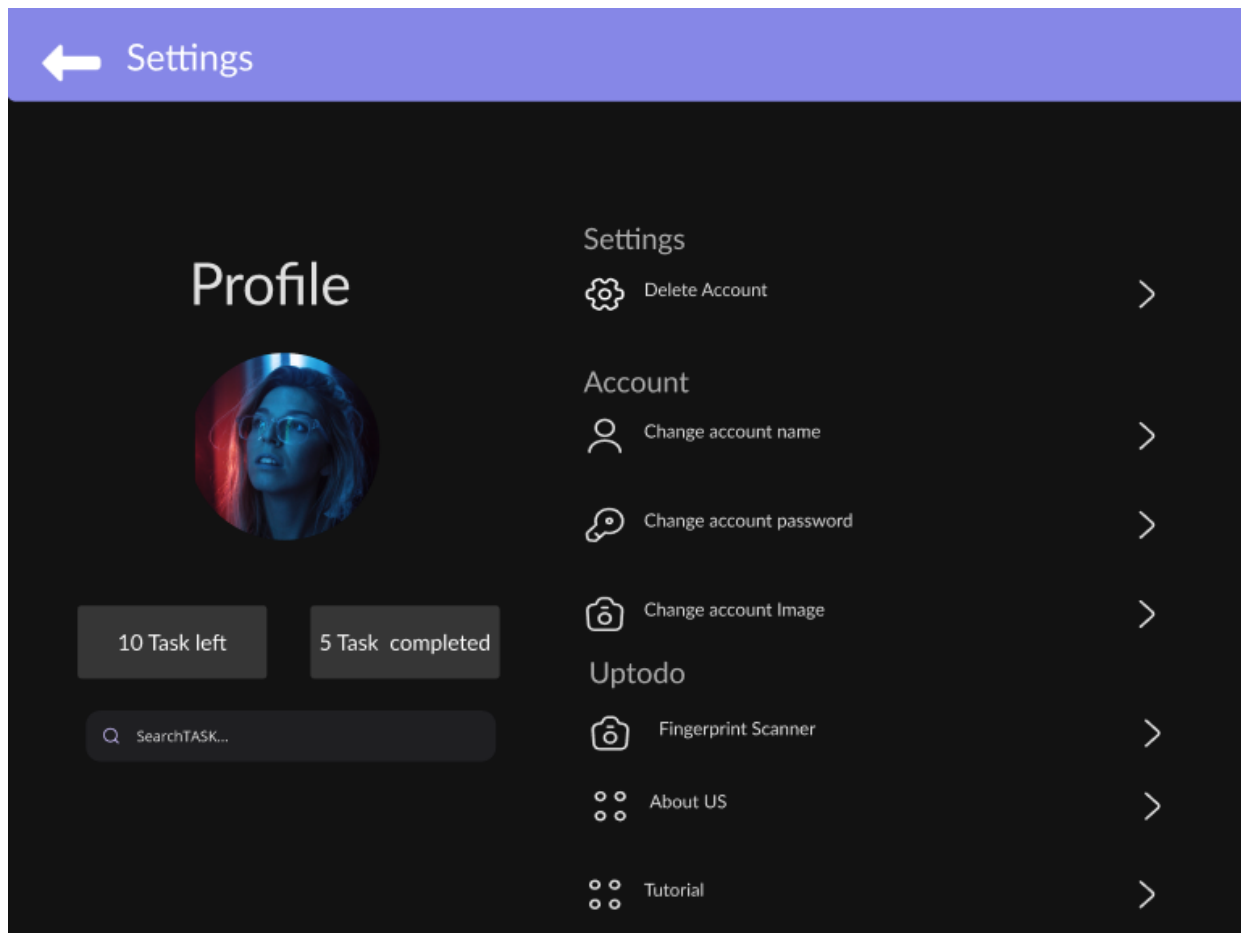
When a user navigates to the group function, they are able to form groups. There is also a search function to find specific groups if users have a lot of groups formed. When forming a group, users can then chat and send notes to each other. If needed, users can add more friends to their group.

2. Group-Add Tasks

When a user navigates to add tasks at the top, users can add tasks together for their group to accomplish within a certain date. This function works the same as the “To Do List” function, except within a group.

Settings Function

Additional Feature : Search task

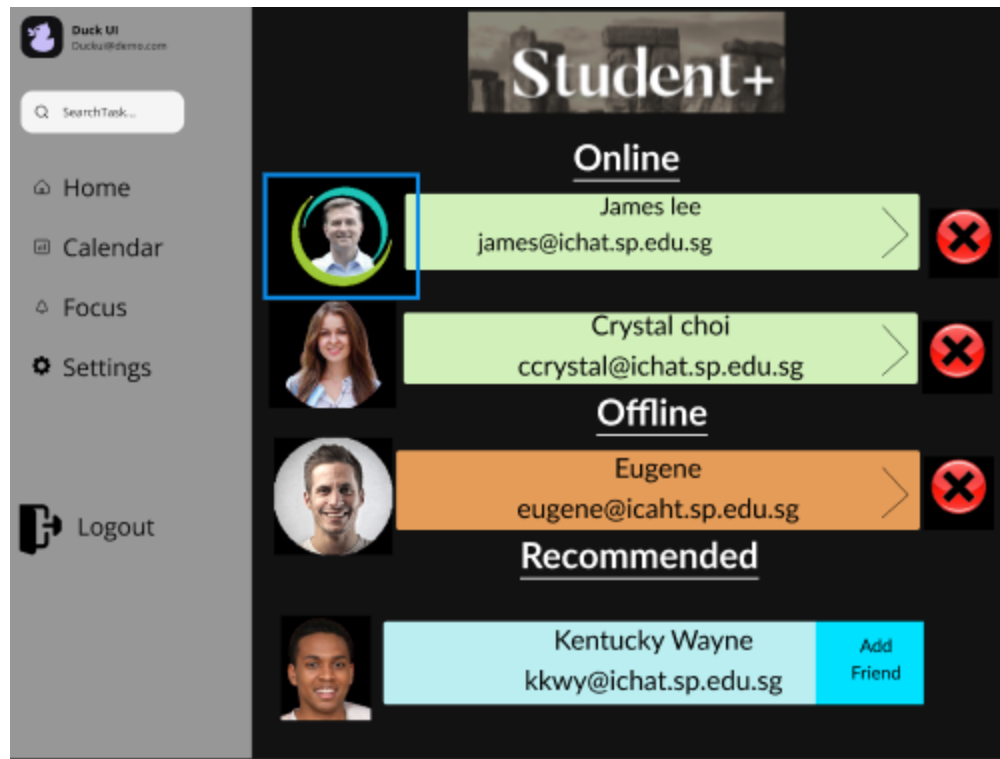


How the screen works

Users can view their total task left and total task completed. There is also an additional search task function for the users to search their task and view their task information. This was implemented so as to save the users time and effort.

Users can also carry out different tasks to customize their account such as change account name, change password, image, fingerprint scanner, about us and tutorial.

Friends function



How the screen works

The screen is immediately displayed after the user has logged in. The screen consists of four main sections: Navbar, Online, Offline, Recommended.

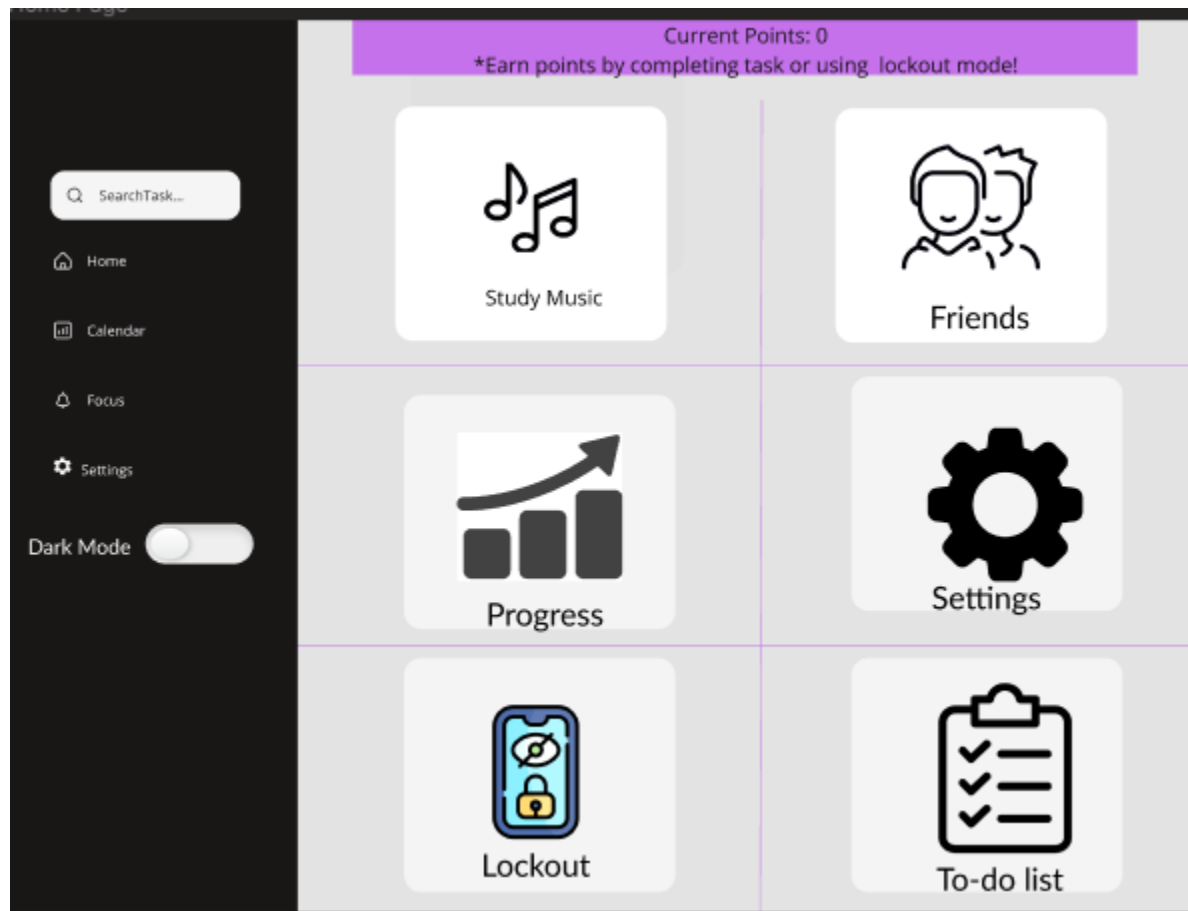
The navbar contains all the common features from other navbar except that this navbar has the logout button.

The online and offline section consists of people who are the user's friend and their activity status whether they are online or offline. The arrow head when pressed allows the user to view their friend's info, and the cross buttons cause the user to remove the friend.

The recommended section allows users to look and discover more of their friends and add them by clicking the add friend button.

Homepage function

Additional feature: Dark mode light mode

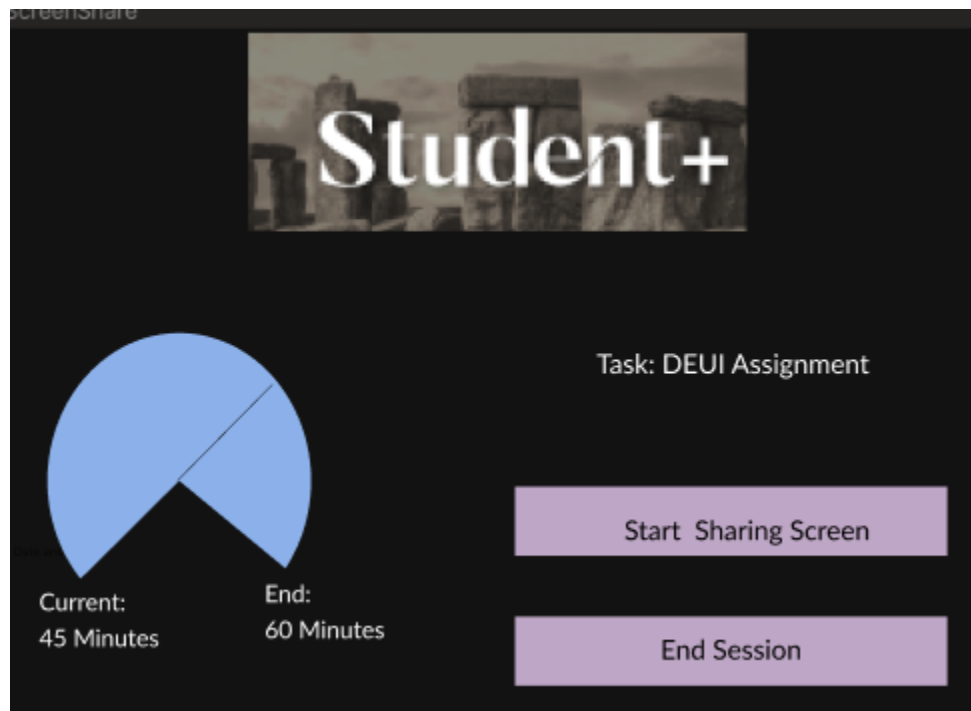


How this screen works?

This screen displays tips and points at the top of the screen and Button with icons, description which when pressed leads to the respective page. This page has the dark mode making the main screen light mode and the navbar is dark mode.

Study session function

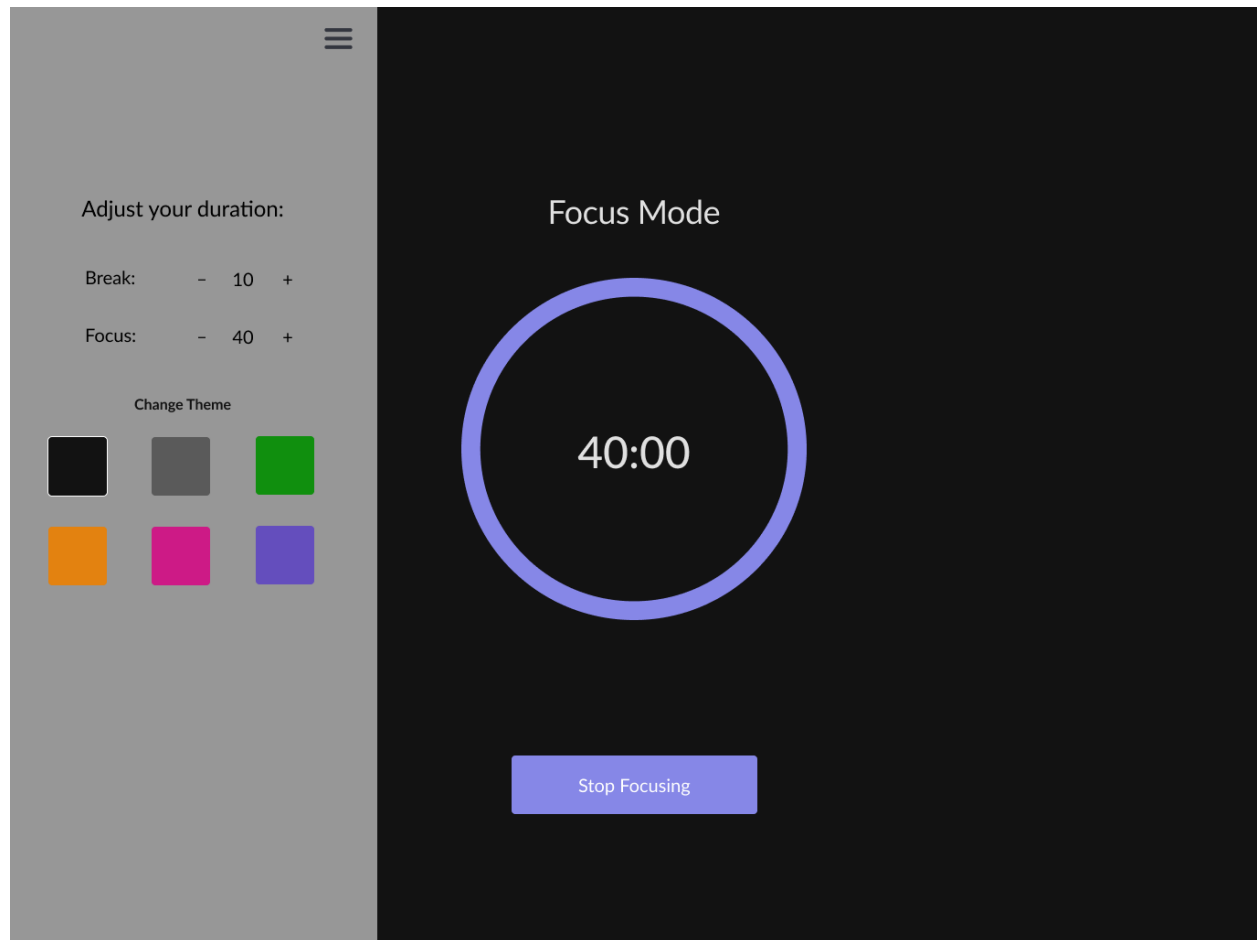
Additional feature: Screenshare



How the screen works

After starting the study session this screen will be displayed on their tablets. On this page, the "Current" shows how much time of the set study session time has passed together with the user's friend. The "End" shows how much time was set for the study session to be completed. The "Task" signifies what task was set for this study session. The "Start Sharing Screen" button allows the user to share their screen with the friend they are having the study session with, and the "End Session" allows the user to end the study session.

Focus Mode



How the screen works

When users navigate to the focus mode function, they will be brought to this page. The functions in the focus mode are all shifted and changed into a drawer, this makes the screen more minimalist and simple when the drawer is closed

Appendix

Observation Notes

Low Bao Tian-

Interviewer Name:	Low Bao Tian
Participant Name:	Sidi
Date:	1 February 2023

Task:	Navigate to the to do list, insert a task with a due date, the task priority, and the category.
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of test
00:01	Navigated to to do list
00:06	Said:'Insert a task' Located the "+" button and pressed it
00:10	Said:"Where is the due date" Located the due date Said:"Ahh, cool"
00:20	Took awhile to exit the due date function
00:24	Successfully inserted due date, task priority and category
00:30	Successfully inserted task Said:"Wow, so cool"

Task:	View "Today" and "Completed" tasks in the "Calendar" function related to the dates
Time (mi:ss)	Observation/Comments/Notes

00:00	Start of task Said:"View today and completed"
00:03	Found "Today" and "Completed"
0:08	Found "Completed" Said:"Wow I never completed anything, nice. Kay done"

Task:	View all tasks
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task Said:"View all task "
00:02	Found "View All Task" button

Task:	Mark "Buy grocery" as completed. View completed task.
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:15	Marked "Buy Grocery" Said:"Marked already what" and moved on

Task:	Play music of your choice in the music function
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:05	Said:"Wheres the music function" Went to homepage and found music function
00:07	Said:"This one" Chose music
00:16	Navigated back to the homepage

Task:	Go into focus mode (locking out of phone) either from homepage or from the "Focus" function in the tab bar
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:01	Navigated to lockout via tab
00:05	Started lockout mode successfully Stunned by the look of lockout page
00:14	Successfully changed the duration of

Task:	Use the different themes, change music, and adjust your break and focus duration
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:04	Navigated and found period and break, changed the duration of period and break Said:"Ahhh"
00:12	Changed music successfully
00:20	Said:"Callming music" Typo in our prototype
00:29	Successfully changed music

Task:	End your session. Aim camera at laptop for AR feature, to show points earned , Press home to return to homepage.
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task

	Said: "Huh?" when reading task, interviewee confused.
00:12	Ended session successfully
00:14	Confused on what to do and started pointing camera at laptop
00:29	Assisted by tester, successfully exited AR feature

Task:	Go to "Friends" Feature. You will be asked to login/create an account.
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:02	Navigated to "Friends" function
00:06	Successfully Logged in

Task:	Add friend
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:23	Failed to add friend

Task:	View Friend's profile/progress
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:37	Viewed "Friend's" profile Struggled to locate and view friend's profile

Task:	View your own progress, levels and duration
Time (mi:ss)	Observation/Comments/Notes

00:00	Start of task
00:02	Found own progress
00:12	Located arrow to view duration page
00:34	Viewed the duration page And successfully clicked on rectangular bar to view details

Task:	Click on rectangular bar to further view on the details
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:22	Viewed the duration page And successfully clicked on rectangular bar to view details Struggled to locate and view friend's profile

Task:	Explore settings, change account name
Time (mi:ss)	Observation/Comments/Notes
00:00	Start of task
00:01	Located settings
00:07	Successfully changed name

Total time taken(including time taken to read) : 06:20

Singh Sakshi-

Interviewer Name:	Singh Sakshi
Participant Name:	Ancey
Date:	3 February 2023

Task:	Navigate to the to do list, insert a task with a due date, the task priority, and the category.
Time(mi:s s)	Observation/Comments/Notes
00:00	Excited to start the test . Smiling Consistently and being very happy . She seemed ready to start prototyping.
00:03	Read the task aloud , and pressed “+”, to insert the task and said “I guess” to add one more task with “+”. Showing the predictability of the “+” icon is good for the user.
00:17	Moved on to customize time , priority and category . Easily located three icons to customize .Showing the predictability of the icons is good for the user . Easily able to set date and time and moved on to set priority.
00:33	Located priority. “Not really clear If 10 or number 1 is the most important or least important”.Quickly able to set priority.
1.00	Located category , marked grocery as category .
1:24	Was happy with labels under icons saying “I like how they are labels below the icons but wished there was one for add tasks” Successfully inserted due date, task priority and category without complications.
1:34	A Although there was no label for the add task button , she was able to recognise the arrow icon and understand the functionality of the button by how it looks. Successfully added task , navigated to calendar Said “Wow, very nice and clear”. “I like how everything is well labelled” , “The ui looks very aesthetic”. “ The layout is very nice”

1:38	<p>Navigated to the calendar.</p> <p>Said “Wow, very nice and clear”. “I like how everything is well labelled” , “The ui looks very aesthetic”. “ The layout is very nice”.</p> <p>She was very impressed with the app design and layout.</p>

Task:	View “Today’ and “Completed” tasks in the “Calendar” function related to the dates
Time (mi:ss)	<i>Observation/Comments/Notes</i>
01:40	Start of task Easily Found Today and Completed
01:43	Toggled between Today and completed with no hesitation . She did this task very fast and very swiftly.

Task:	<i>Mark “Buy grocery” as completed. View completed task.</i>
Time (mi:ss)	Observation/Comments/Notes
01:45	Start of task. Reads the task aloud
01:55	<p>Was able to figure out the circle dot was to Marked “Buy Grocery” easily .Did task quickly Hence there was good perceivability.</p> <p>Said:Oooo” showing she was impressed.</p>

Task:	<i>View all tasks</i>
Time (mi:ss)	Observation/Comments/Notes
1:57	Start of task Read the task out aloud
2:00	Found the “View All Task” button and proceeded to comment that it was “very nice to look at “. Navigated back to homepage .
<i>To Do List observation summary</i>	She appreciated the overall design of the index page as well . This was the end of the To Do List Feature , she looked mostly calm and collected while navigating it. Her body language was composed . Predictability of buttons can be improved.

Task:	Play music of your choice in the music function
Time (mi:ss)	<i>Observation/Comments/Notes</i>
02:02	Start of task Read task aloud.
02:05	Found the music feature on the homepage and clicked on it . Went through all the music choices .
02:10	Chose song.After choosing the song. She was slightly confused as she said “ it says press next but there was no next button”.
02:16	Clicked home button . Navigated back to the homepage
Music Feature summary observation	Easy task for user to do. Instructions should match buttons available.

Task:	Go into focus mode (locking out of phone) either from homepage or from the “Focus” function in the tab bar
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Time (mi:ss)	Observation/Comments/Notes
02:20	Start of task Read the task aloud
02:23	She navigated to lockout from the homepage.Clicked on it
02:30	Started lockout sesssion

Task:	Use the different themes, change music, and adjust your break and focus duration
Time (mi:ss)	Observation/Comments/Notes
02:35	Start of task Read Task aloud.
03:00	Quickly found themes on navigation bar . She changed the themes to the colours grey , green , pink . She commented “Ooo Nice” and was curious to try out the other colours as well . She enjoyed this function as she was playing around with it
03:30	Navigated to songs on navigations bar .Changed music successfully. She said “there is a typo
03:45	Navigated to focus period . She was able to almost immediately figure out how to increase and decrease the duration with the buttons . Showing good percievability in our app
04:18	Navigated to break . Successfully set break duration . She appreciates the intuitive thought of the break duration to be set . She said “which is a good feature” , “make sense”. She felt the feature was relevant to the context of our app

Task:	End your session. Aim camera at laptop for AR feature, to show points earned , Press home to return to homepage.
Time (mi:ss)	Observation/Comments/Notes
04:30	Start of task

	Read Task Aloud
04:36	"Aww no points earned
04:40	She was not sure what to do next / She was not able to find the home button at first but eventually found it as it was not very identifiable . She said "Home button cannot see maybe make it red"
05:05	successfully exited AR feature and navigated back to homepage
Lockout feature overall summary and observation	She was able to understand the different functions . Lockout exit is slightly unclear due to lack of instructions .

Task:	Go to "Friends" Feature. You will be asked to login/create an account.
Time (mi:ss)	<i>Observation/Comments/Notes</i>
05:10	Read Task Aloud.
05:13	Navigated to "Friends" function through homepage said " I guess I'll just log in".Body language seemed confident at this stage
5:15	Successfully Logged in

Task:	Add friend
Time (mi:ss)	<i>Observation/Comments/Notes</i>
05:17	Start of task Read Task Aloud
05:19	Was confused and unsure where to tap . Her brows were frowning as she could not figure out how to add a friend . Tapped wrongly and saw friends progress instead . At this point she was having difficulties and

	was lost and tried her luck with the search button .
06:00	Managed to add friend with difficulties , which took a long time . Since she had to try her luck , this shows predictability ,perceivability and learnability was lacking in the adding friends task as the buttons were not helping Ancey complete this task instead made it harder for her and she was not confident that she had completed the task.

Task:	View Friend's profile/progress and start a study session
Time (mi:ss)	Observation/Comments/Notes
06:03	Read Task aloud.
06:08	Easily located clicked on James to see progress . However this was only because she tapped wrongly in the previous task so she knew where the progress now would be . Lack of perceivability in finding progress .
06:30	Started study session
06:40	Ended study session , navigated back to homepage
overall summary of friends feature	User was confused while navigating this feature . There were many points of hesitations and doubts while trying to add friend and view friends progress.Many wrong assumptions were made due to the lack of clarity.

Task:	View your own progress, levels and duration
Time (mi:ss)	Observation/Comments/Notes
06:42	Read Task aloud
06:45	Navigated to progress feature from homepage

06: 46	"Ooo nice I like the details". She instantly pressed on the rectangles to see more details . Page had good perceivability .Appreciated different color text for weekend .
07:00	Completed Task went back to homepage
overall summary of progress feature	User had no problems with this feature .

Task:	Explore settings, change account name
Time (mi:ss)	Observation/Comments/Notes
07:04	Read Task aloud
07:08	Located settings on homepage .
07:09	Started with about us > fingerprint scanner "this phone does not have a finger print scanner" > changed password "Wah very long password"> Changed account name > deleted account > return to homepage
07:50	Succesfully carried out all tasks in settings
overall summary of settings feature	User completed all tasks with no difficulties. Feedback helped user complete all tasks indicating good learnability.

Carried out navigation prototype in **7mins 50sec.**

Pravin

Participant Name/ID:	Ravuthasamy Pravin/ 2228325
Date:	07/02/2023
<u>Project</u> Name:	Student+
Task:	1,2,3,4,5,6,7,8,9,10,11,12

Time	H:MM:SS	Observation/Comments/Notes
0.00.00		Permission to conduct the UT was given,he is smiling and looking very interested on the app
0.00.12		First task of navigating from the home screen to the to do list and insert a task with due date,task priority and category was given where the user was very focused and could find the buttons to do the task.
0.00.43		Task1 completed. Task 2 of going to today and completed in the calendar, at first, when i asked the user to go today , he was quite confused at first then when i asked him to go to completed he understood and figured out what i was asking him to do
0.00.57		Task2 completed. Task 3 of marking buying groceries completed,user was able to complete it without any signs of discomfort or confusion.
0.01.05		Task3 completed. Task 4 of playing music in the music function, task completed without any hesitation as user has seen the music function on the home page.
0.01.19		Task4 completed. Task 5 of Going into focus mode (locking out of phone), user raised a question on where the lockout mode was even though it was on the main page and he was currently on the main page, but was able to start lockout easily and there were no changes in the facial expression. I inferred that user could have missed it out.

0.01.28		Task5 completed. Task 6 of locking and before that changing themes, adjust break time and focus duration was quite easy for the user as he was able to do it all on 1 try and seemed pretty calm about it.
0.01.59		Task 6 finished, moving onto task 7 of ending the session by the AR feature to show points earned and return to home page, for this the user had no confusion and was clear of what he was doing and did the task simply.
0.02.17 co	Ta	sk7 completed.Next task 8 of going to the friends feature and logging in was easy for the user as he was ble to mplete it fast.
0.02.22		Task 8 completed. Next task9 of adding friend by searching seemed a bit thought for the user as he was struggling and was kind of waiting for my instruction each time before moving on to adding friends.
0.02.48		Task 9 completed. Task 10 of viewing friends was easy for the user as he did not seem to struggle or having any change in facial expression and did the task fast.
0.02.53 of	Ta	sk 10 completed. Task 11 of viewing the users own progress was confusing for him as he went to the profile instead my progress in the main page and had to receive further instructions from me to get there.
0.03.24		Task 11 completed. Task 12 of exploring settings and changing profile name was easy for the user to do as he was able to do asked to easily
0.03.34		Task 12 completd. End of UT

Recording Videos

Low Bao Tian

<https://youtu.be/1IZ0OC080VU>

Singh Sakshi-

<https://youtu.be/tVEr1rJHbYk>

Pravin-

https://youtu.be/-aPmf2jEP_8

References

Video editor- ClipChamp
<https://clipchamp.com/en/>

Figma