MindSet

FINAL REPORT

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

We created MindSet because we wanted to create a clean and simple application that helped college students stay on track of everything and complete tasks. There are other applications that have similar functions to ours but what makes MindSet stand out from the competitors is the combination of everything in one place. Our app allows users to access their to-do tasks, schedules for class and work and calendar events all in one location instead of having to use multiple apps or platforms. Procrastination and inability to keep track of everything going on in our busy lives is one of the biggest problems college students face day-to-day and we wanted our app to aid with that. With that being said, our application was targeted at college students however anyone could make use of this app. We designed a clean and stress-free interface that allows users to easily navigate between schedules, events and to do tasks while also quickly and easily being able to delete them or add more. Through usability testing, we were able to come up with a concept and layout that students confirmed would benefit them in their daily lives. Through prototype testing, we were able to ensure that our interface was self-evident, clean and rid of bugs. We present to you, "MindSet".

PROBLEM STATEMENT

College undergraduates seek an effective and focused way to keep track of and complete tasks in order to manage time and reduce procrastination.

RELATED WORK

Related Work #1: "You"

"You" is an online resource created by Colorado State University that provides students info on how to recognize mental health issues and resources on campus that might help them. Many other colleges have adapted this system as well. This platform addressed the design problem of giving students resources to managing their mental health similar to what we are doing with our app just specifically with stress and not all mental health problems even though stress tends to lead to others. Our application concept will be similar because we will also provide multiple resources/techniques. We also can adapt our app to be JMU based and put JMU resources on the app just like "You" did. The main difference between our applications is that ours is addressing mainly just stress while theirs was created to address all mental health problems.
Source: https://www.insidehighered.com/news/2018/10/05/colleges-turn-wellness-app-address-student-mental-health

Related Work #2: "Remember the Milk"

"Remember The Milk" is an app that helps students stay on track of their to-do-lists by building & prioritizing lists and sending you reminders to complete them. This app allows students to get reminded via email, text or Twitter notifications which is smart to do since college students are ALWAYS on their smartphones. You can also sort your to do lists and tasks by priorities, due dates, lists, tags and more. This application is similar to ours because our app will be used by college students to manage their studying/school work which could be utilized by a similar to-do list feature. We could also use the reminder feature to remind students to do things that will relieve stress such as a text notification telling you to take a walk or do a face mask. We could use this apps idea and combine other features in order to make a multi-use app that helps manage stress, prioritize work and study more efficiently.
Source:
https://blog.cengage.com/top-mobile-apps-for-college-student-research/

Related Work #3: Trello

This app is huge in the productivity field. Available for mobile and desktop, it makes prioritizing and organizing super easy, and enables users to implement a "workflow" from starts of tasks to the finishes. It solves the problem of "to-do" lists and prioritizing things, and offers a creative, visual solution to task management. Some admirable features of trello that are inspiring to our project include the kanban system when it comes to the "to-do" list, integrating tasks in a repetitive process that is almost meditative but also mindful in a sense that you watch tasks move from start to finish, and fulfil a "completion"
Source: https://www.tandfonline.com/doi/full/10.1080/1941126X.2016.1130464

RELATED WORK

Related work #4 | APP – Freedom.to

Freedom.to is an app for your digital devices-- from your phone to your computer, Freedom.to blocks certain tempting sites that detract from productivity. It helps address the problem of not being productive, but also the problem of not having mindfulness when completing tasks.

PROS: customizable block lists, syncing for block lists across all devices, scheduled blocks/recurring blocks, timer, lock

CONS: not-free, limited free-trial

Chris Bailey's book Hyperfocus identifies the importance of "flow state", in which one is fully and actively engaged in what they are doing. They are productive and mindful. Bailey also references the fact that multitaskers/distractions can set us back a whole 23 minutes before we are able to completely regain focus. Source: Bailey, Chris. Hyperfocus. 2018.

Related work #5 – APP – Headspace

This app seeks to solve the problem for those who don't think they have enough time in the day to meditate. It offers a wide variety of meditation sessions in a sleek interface that is very intuitive to use. Sessions are categorized by type, or "problem" you would like to address with meditation (ex. sleep deprivation, stress, sadness etc.)

PROS: sleek interface, neatly categorized, "singles" sessions (quickies/QuickStart), saved user history ("what did I do last time?"), creative/engaging animations for all ages, concise instructions, beautiful flat, geometric design

CONS: subscription rate, potential drawback of relying on tech to meditate (hence it's a beginner's meditation app?)

Studies show that those who meditate increase the presence of alpha waves in their brain which aid in helping the brain regulate its attention to outside stimuli, and helps you focus better. Source: http://news.mit.edu/2011/meditation-0505

USER RESEARCH

Users:

–JMU undergraduate students

–Various Majors

–Taking between 14–17 credit hours

–Various school years (Sophomore, Junior, Senior)

User 1	User 2	User 3	User 4	User 5	User 6
Junior	Sophomore	Junior	Junior	Junior	Senior
Studio Art	Computer	Health	English	Health	Health
15 Credits	Info Systems	Sciences	15 Credits	Sciences	Services
	15 Credits	14 Credits		16 Credits	Administration
					12 Credits

Process:

We conducted the interviews face to face. We recorded notes and responses on our computers throughout. It is easier to interview using a computer rather than pen and paper as we can type a lot faster and record more information as they are saying it.

Results and Analysis:

We decided to go with a closed sorting approach, as we already knew the categories into which we would place our questions and responses. To do this, we utilized a productivity team-building app called Trello to house all of our categories, questions, and the answers which we then sorted by "dragging" the cards into their correct spot/category for the best match of data. The optimal part about using Trello for this part of the data collection/sorting is that it was basically a virtual board of sticky notes– – each list, board, and card held their own pieces of data without us having to use a sheet of paper. Although the demographic of our participants was rather similar, our findings were interesting, in that we discovered that each responder had a slightly different way of approaching managing their tasks.

USER RESEARCH

Research Questions:

SCHOOLWORK
What's your major?
Can you describe projects and exams?
How many credits are you taking?
Do you feel like your workload is high?

___

TIME
How much time do you feel like you spend on school work vs. social media?
How much time do you feel like you have for yourself?
How many hours of sleep do you get a night?

___

STUDY HABITS
How do you study? Describe how you study or a typical study session.
What do you think is the hardest part about studying?
How much time do you spend studying?
Do you listen to anything when you study?
How do you manage tasks?
What materials do you study with (tech or otherwise)?

___

TECHNOLOGY
Where do you put your phone when you study?
How many devices do you use on a day to day basis?
What kind of device(s) do you have? List them:
Do you use any existing organization/productivity apps? If so, which?

___

STRESS
Have you had any "mental breakdowns" recently? If so, when was it? What caused it? Can you describe it? What led to it?
Describe your stress level?
What do you think causes your stress?

___

MISC.
Do you participate in any extracurriculars? If so, what? And how much time put aside for those activities?

PERSONA 1: JOHN

Name: John Miller
Year: Sophomore
Major: Business - Finance
Average Stress Level: Medium
Technology Level: High, uses phone daily but uses it for basic needs, is not familar with many applications

"I wait till the last minute to do everything because I honestly just forget."

Background / Study Style

John Miller is a very easy going, laid back type of guy. As a sophomore, he feels like he has gotten the hang of college. Although his grades are mildly average, he doesn't think they're bad enough to make a change. He's a smart kid who has been doing well in his business and general education courses but he does not have good time management or organizational skills. He doesn't get stressed out too by the difficulty of his course load but rather than the stress of never knowing when to work on his schoolwork and always completing things last minute.

John doesn't spend much time in the library. He does most of his work at home in his living room or in his bed typically the day of or the day before it is due. He doesn't necessarily try to procrastinate, he simply just doesn't keep track of his schoolwork and due dates. He thinks planners are "too girly" for him to use. Instead, he used to log his homework into the "Notes" app on his I-phone but then after forgetting to check it multiple weeks in a row, he gave up.

When it comes to schoolwork, his biggest need is something to remind him what his assignments are and when they are due.

Frustrations & Goals

John gets frustrated by how badly he manages his time and how often he forgets about assignments. Although he is quite "school-smart", he has a very bad memory. He relies on his memory of assignments/due-dates and then gets stressed about when he forgets about them until the day before they are due. He is used to all nighters trying to get his work done in time which has really messed up his sleep schedule therefor adding to his stress. He also has missed lots of other events and classes due to having to spend the time studying last minute for the test he forgot he had.

The goal of our application for students like John would be to relieve their stress by helping them time manage, prioritize, and remember their school work with the use of the to-do list feature. John and similar users can enter in every assignment or test they have with the due date and the application will send them notification reminders to complete the work in a specific order. These notifications can be sent as email, text or push notifications therefor John, and others, who use their phone daily will consistently be reminded of the work they need to complete.

PERSONA 2: KATIE

Name: Katie Smith
Year: Junior
Major: Health Sciences - Pre PT
Average Stress Level: High
Technology Level: High, is constantly getting distracted by her phone, very active on social media, uses a variety of apps for different things

"How am I supposed to handle grad school when I am already so stressed out as an undergrad?!"

Background / Study Style

Katie Smith relies heavily on her phone for everything. She is a very social and involved person both on campus and online. She is very smart and organized. She uses a planner and colored pens to keep track of all of her homework, tests, job shifts and social events for her sorority. Yet, she often feels like she has too much on her plate and is always being distracted by texting or social media.

You can always find Katie in the library on campus if she is not at work or in class. She has already prioritized and scheduled her work in her planner and goes through the list checking them off as she completes them. However, it takes her a lot longer than she plans to as she keeps switching back and forth between school work and Twitter. Her roommates hardly see her because she is at the library for long hours because she can't stay focused then comes home and stresses out in her room alone.

When it comes to school, Katie knows how to stay organized and prioritized. Her biggest need is a way to stay off her phone while doing work and to relieve stress that comes from her busy life.

Frustrations & Goals

Katie gets frustrated by how busy she always feels. She will spend extra hours at the library and not get that much work done because she spends most of the time checking her phone notifications or being stressed out. She knows if she stayed focused, she could easily keep up with her busy life and work load. Her roommates have noticed how stressed out she gets yet Katie hardly participates in any stress relieving activities.

The goal of our application for users like Katie would be to help users stay focused on their work through the use of the "No Distraction" feature and to relieve stress through the use of many features. Our application features a meditation follow-along, relaxing study playlists, automatic "take a break" timers and a stress tracker feature in order to try to alleviate some of the stress from studying and doing work. The "No Distraction" feature will not only block texts and calls but also not notify you with social media alerts as well.

SCENARIO

Katie has three exams and two papers due this coming week and she feels an overwhelming amount of stress because there is just so much to do. She has already started planning out what she is going to do in what order. She goes into the library and finds a seat. As she unpacks and places her laptop, notebooks, textbooks, and her phone down on the table she gets a notification from Twitter. She sits and scrolls through her Twitter feed for 20 minutes before remembering that she has a lot of work to do. She places her phone back down this time with the screen face down so she won't get distracted. She starts going through her notes and textbook for about 10 minutes when her phone starts buzzing. She tries to ignore it and go back to studying but now all she can think about is what the notification is. She gives up and picks up the phone, and the next thing she knows she has spent an hour scrolling on her phone. Now she is even more stressed and frustrated knowing that she just lost an hour of studying. She decides to download this app called MindSet. She easily sets up a study timer with no distraction mode turned on in the app. She selects the apps that distract her the most, such as Twitter, Facebook, and Instagram and starts her timer to study for an hour with 20-minute breaks. As she is studying her phone no longer buzzes every time she gets a notification from the apps that distract her, and she is able to study for an hour with no disruption. She gets all her work done earlier so she is not stuck in the library forever, and now she can go home and destress with her roommates.

She then decides to make her to-do list for the week. After studying for an hour, her head is cloudy and she finds it hard to focus. She pulls out her planner but the messy array of assignments and due dates she's written down makes her feel discouraged. Her physical planner is cluttered, unorganized, and overwhelming. She also doesn't like that she writes stuff down in her planner but also ends up putting things on her calendar. She decides to open the "TASKS" features within MindSet to help her sort her commitments and projects by their priority levels. The TASKS has an option to sync with her calendars, so she doesn't have to write things down twice! She can have notifications turned on when things are upcoming or due. After sorting her tasks by the due dates, Katie realizes she's been staring at a screen all day and desperately wants to unwind. She decides to take advantage of MindSet's "MINDFULNESS" section in the app, which features different types of meditation recommendations/apps, as well as some wellness tips. She embarks on a meditation session that leaves her feeling fresh and rejuvenated, and ready to return to her study session.

STORYBOARD 1

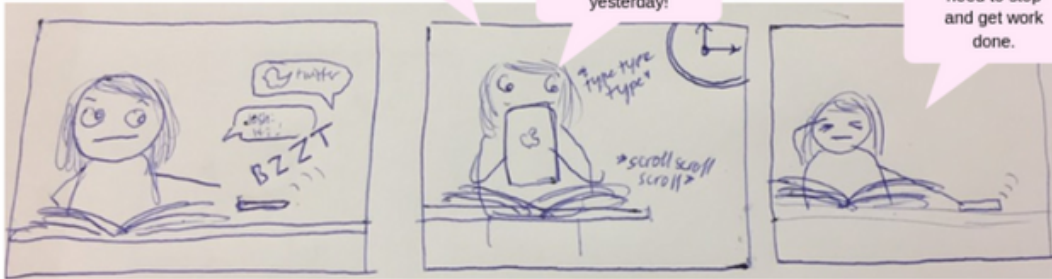Katie likes going to the library to study and get work done. She has a lot due in

She goes into the library and finds a seat, and gets settled.

Just as she's starting to get work done, she gets several notifications from her

She tries to keep studying, but a little while later feels compelled to check her phone, because all she can think about is the notifications.

When she picks up her phone, she ends up scrolling for about an hour.

She catches herself mindlessly scrolling and realizes that something has to give.

Out of frustration but also searching for a solution, she decides to download an app called MindSet.

She opens the app and clicks on the "STUDY" feature, which lets her set a goal timer for the amount of time without distraction she will study for, and lets her select the ambient sounds/music to help her study.

She can also select the "DO NOT DISTURB" option, which goes beyond her phone's settings to silence notifications from her favorite distracting apps.
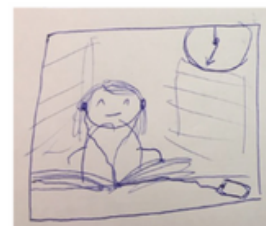
She is now able to get into the zone, studying away to ambient jams while her phone is silenced from distraction so she can reach her studying focus goals. She feels happier and productive!

STORYBOARD 2

Katie is swamped in schoolwork. She keeps a planner, but sometimes she gets distracted and doodles in it. It's hard for her to prioritize things on paper.

She wants to remember what things are due when, but it's a lot of information to keep straight in her head and she just wishes she could have a reminder of when the most important things are due, and what is due first.

She gets an idea and decides to download the app her friend told her about-- MindSet!

She opens the app, and makes use of the "TASKS" section/button/function on the homescreen. It is here where she can see an overview of her to-do list for the week and for the month-- this feature connects with her existing calendars if she wants it to, and she can switch notifications for upcoming tasks on and off.

Inside "TASKS", she is able to sort by importance, type of task, and due date, and can have the satisfying experience of "Checking" stuff off by deleting tasks/swiping them away.

Now that she's organized her tasks and has a better idea of what she needs to get done, she heads over to the "MINDFULNESS" section of the app, which recommends some meditation apps and routines for her to de-stress before she sets out to study for the day.

She stumbles upon a few different meditation sessions and browses through a couple of "self-care" tips that the app offers.

She decides to pick a meditation session and gets started, knowing she has her priorities straight and that she is one step closer to calming her mind before a session of focused study.

DESIGN REQUIREMENTS

1 This app should have a to-do list that allows users to organize the tasks based on different categories such as: priority, category or deadlines so every that no task will be forgotten.

2 This app should also be able to connect to existing calendars/schedules to import events, tasks, and assignments that the user has already made.

3 The to do list should have options to delete/complete/edit a task that was entered so users can properly keep track of what they still need to do.

4 The app should feature a calendar feature that shows events users import as some things are important and need to be remembered even if they are not a direct task that needs to be done.

5 This app should use direct push notifications to alert the users when things are coming up within their tasks.

DESIGN SOLUTIONS
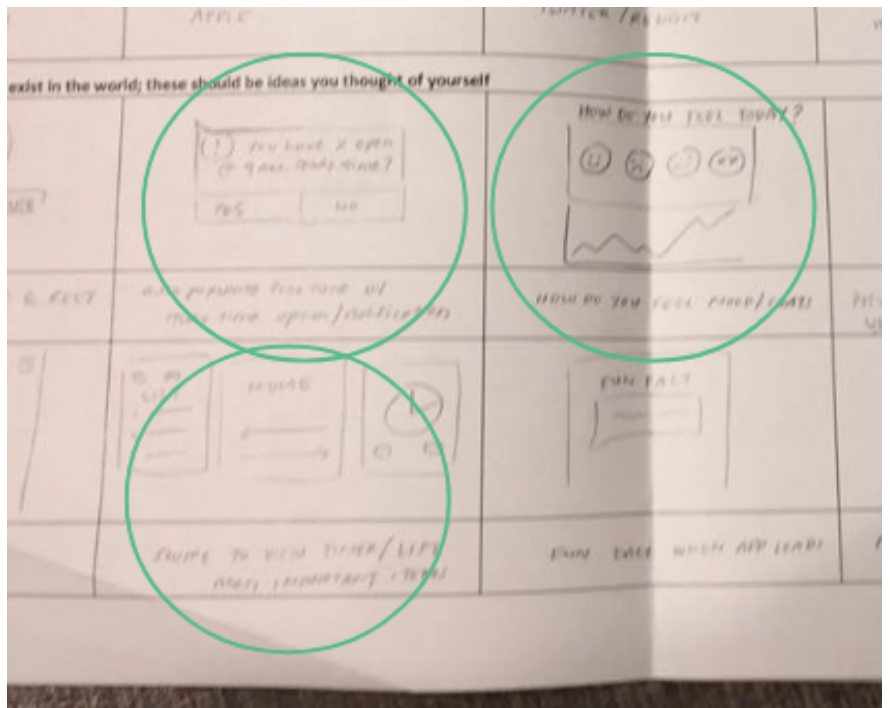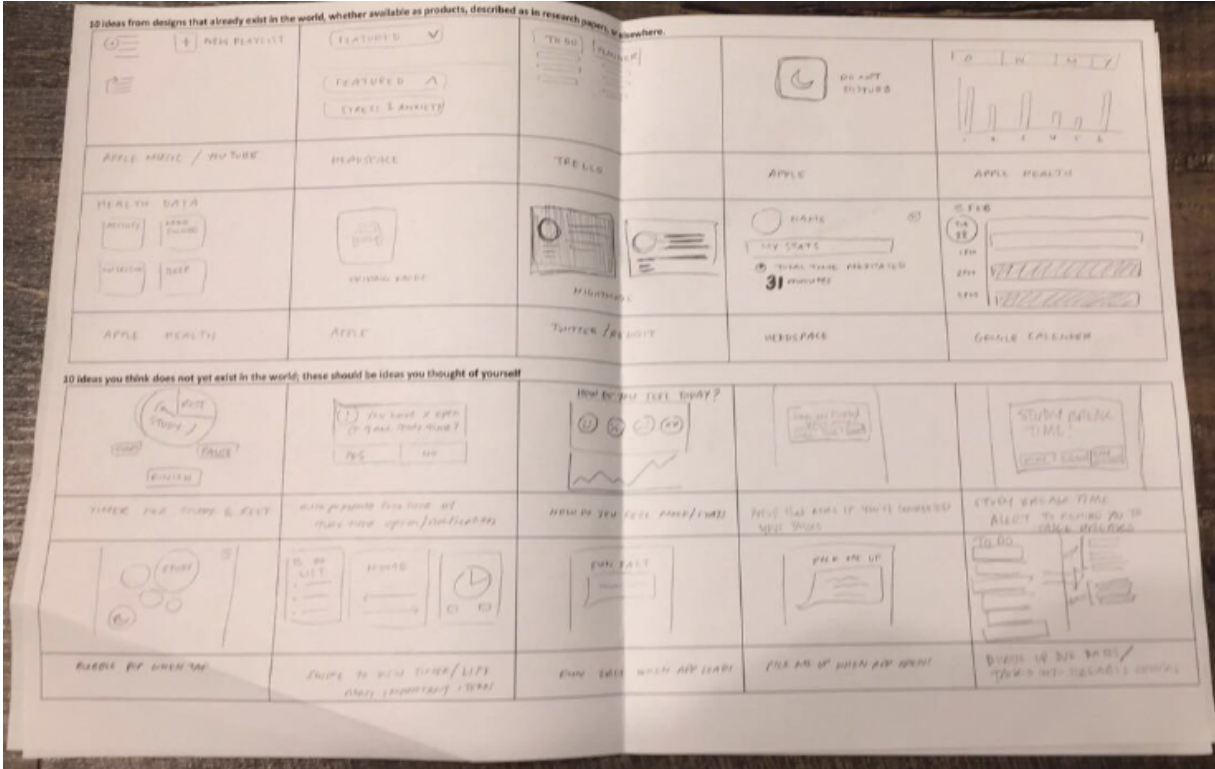
3 BEST CONCEPTS

Using the NUF strategy, we came up with the following 3 concepts for an application:

- Custom, Notification Based, To Do List App

  Sends you notifications & implements the autopopulate free time

- Stress Management Based App

  Notifies you each day "How do you feel today?" and provides stress relief options (music, yoga, readings, etc)

- Customizable menu application that combines everything

  The bubbles would be the features on the app you use the most

PAPER PROTOTYPE
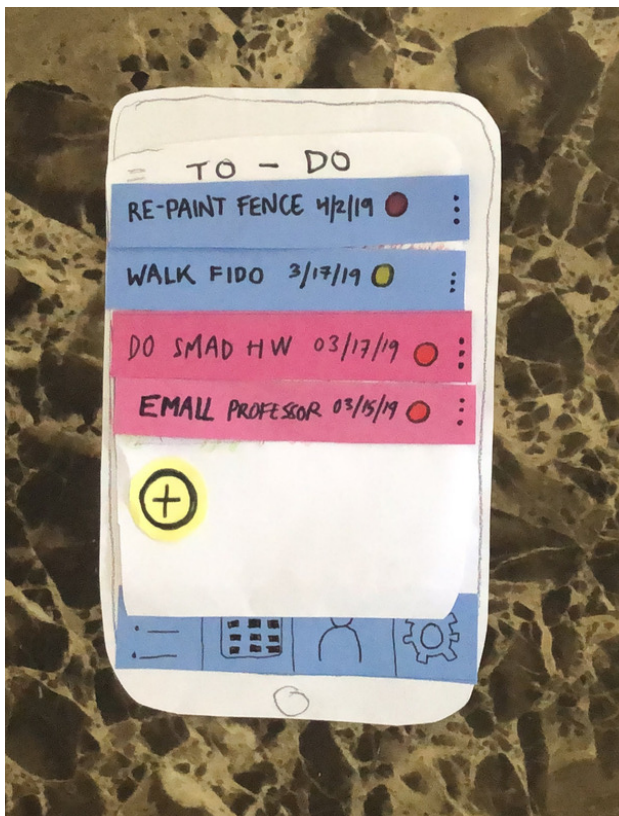
PAPER PROTOTYPE

Script ———

"Thank you for testing MindSet today. You will be completing 5 tasks today. This test will take approximately 10 mins. I will be facilitating this test, [NAME] will be recording, and {NAME} will be acting as the human computer. That is, she will be moving elements on the prototype to reflect your actions. Touch paper elements to simulate a tap, and use sliding motions to simulate sliding of elements. Our human computer will do their best to indicate what elements are movable. We encourage you to speak your thought process aloud! This will help us understand what you're thinking as you go through, as well as help us identify any issues you may have. However, we will not be able to offer you answers / solutions through the testing process. You will follow the instructions for the task until it is complete, and then we will move on to the next one. If you cannot complete the task, please let us know."

Tasks

Task 1: Register
Task 2: Syncing calendar/enter schedules
Task 3: Add to do item
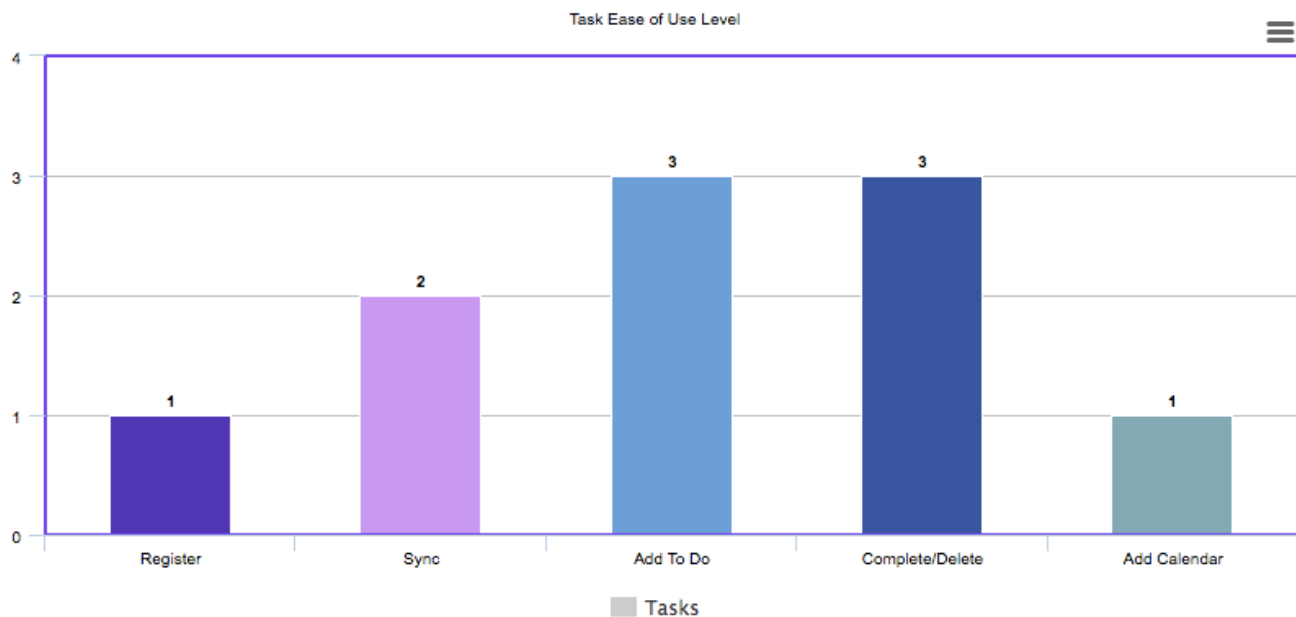Task 4: Complete and Delete to do list item
Task 5: Add an event to the calendar

Testing Procedure ———

First, we told each user an overview of what the app is and what they will need to do during the test as well as what each of us will be doing during the test. We then asked each user a series of user demographic questions. After asking those questions we started our tasks. We would tell them what the task is and then set it up for them. After completing each task, we would ask them questions about each task, and whether or not it was easy to complete. After completing all 5 tasks, we ended by asking some post-test questions.

Conclusion ———

Overall, the testing went well! We noticed that the users were good with sharing their thought process aloud, and that they interacted with the prototype rather well. Tasks 1, 2, 4, and 5 seemed pretty simple for all of our users. They were able to complete the first 2 tasks in under a minute. Task #3 was a bit more difficult for our users as they generally had trouble understanding the color features, and the difference between priority coloring and card color-coding. We also noticed that the users all stayed within the screens of the tasks, and didn't try to go anywhere else really, outside of the menus within which we were conducting testing. We especially noticed this with the bottom navigation––those icons were not clicked on at all. During the testing session, we noticed it was a little hard to refrain from giving tips and hints when it came to task completion, however it was interesting to see how the user persisted even though they could not understand some functions at first. We wanted to have our follow-up questions happen between tasks (so the user could have the task still fresh in their mind) however, this made us aware that we were not testing the "in-between" paths between tasks, which would have been really useful to see how users go from one function to another, and how they find their way between different parts of the app.

PAPER PROTOTYPE

Task Ease of Use Level

Conclusion

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PAPER PROTOTYPE

Prototype Iterations and Modifications:

Tutorial function for slide/jiggle moving functions – One thing we noticed as the users went through the testing is that functionality was not always super explicit. Like with many apps nowadays, when you first open them and go through, they have a brief tutorial screen that shows you how to operate something, if something is slightly unexpected or if the user is totally new to the app. This would have been especially useful on the TASKS screen, where the user could swipe to delete or complete a task.

Clear priority/colors – We noticed that the users conveyed a bit of confusion when it came to the color coding of the priority and the color of the card. Our prototype lacked some color in the priority "circle" lights, which undoubtedly led to some of the confusion. We would like to do a better job of making clear the division between "priority" color and card/task color (which would be used to sort by type of task, if the user so desired). To distinguish this, we may add labels for categories in addition to the colors for cards.

Confirmation screens to show user did something correctly – During the testing, we noticed that sometimes the users were not provided adequate feedback from what they had done in the app, and so we would want to add pop-ups or screens that indicated a user's success, whether that was creating a task successfully, creating a calendar event successfully, completing a calendar sync successfully, etc.

Escape options from the "sync/add/" menu – During the testing, we noticed that some of the users got a bit lost within the "sync/add" feature, and would want to implement a "Cancel" or an "X" that gives them a way out.

Correction features for accidentally deleting – We want to be able to give the user a couple of seconds to realize they didn't mean to do that, and still have the option available for them to "undo" the action.

Consistent buttons/icons – We noticed throughout the testing that some icons/functionality was not consistent throughout the app itself. We would like to develop a standard set of icons/symbols/text patterns to make the user more aware of where they are, and have it be a streamlined process that is full of consistency.

Reminders feature – We want the user to remember what tasks they have coming up, and would like to implement an option to turn on reminders for tasks and events.

LOW FIDELITY PROTOTYPE
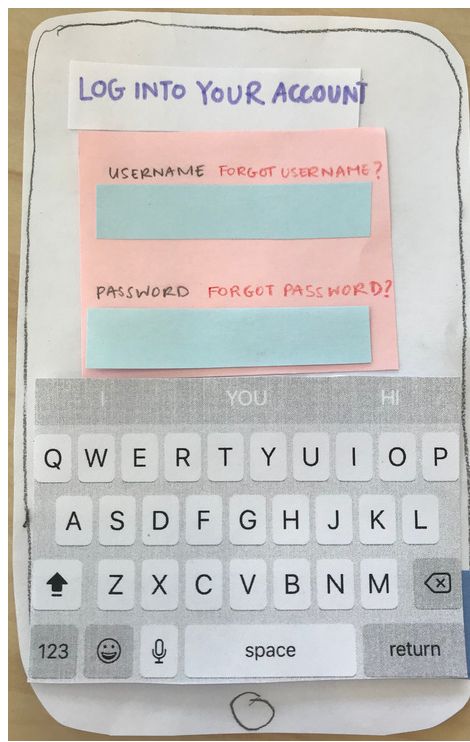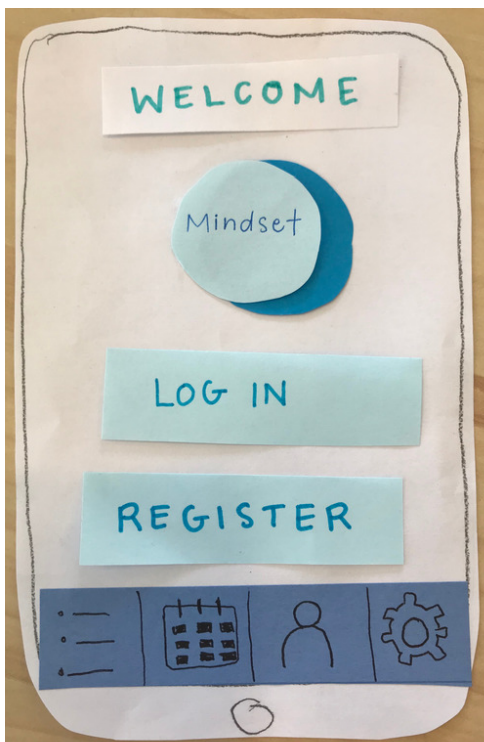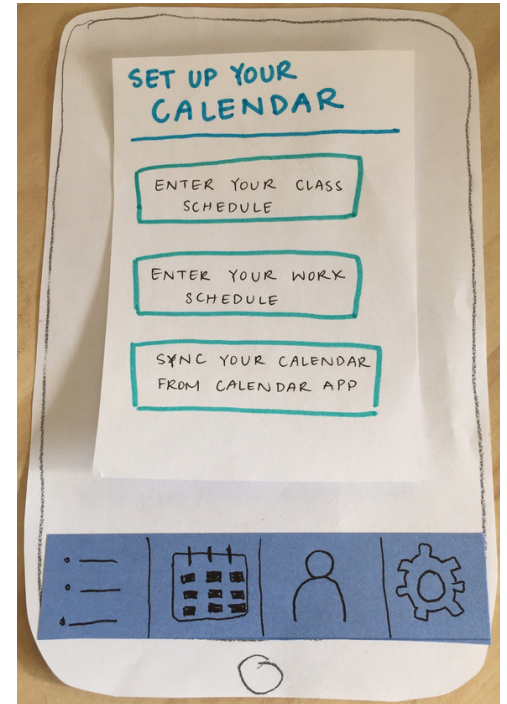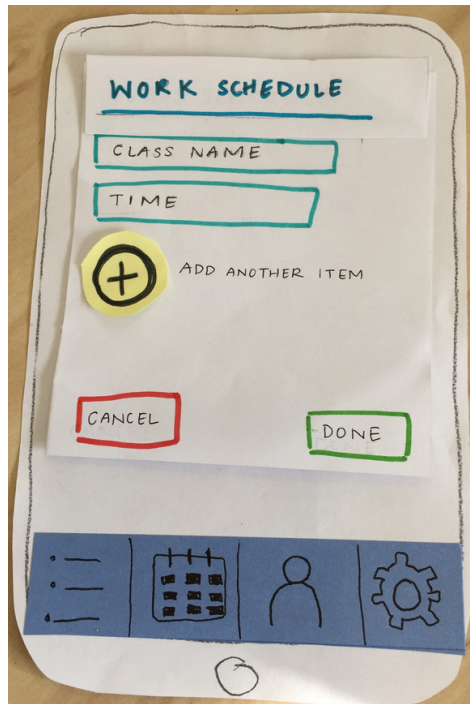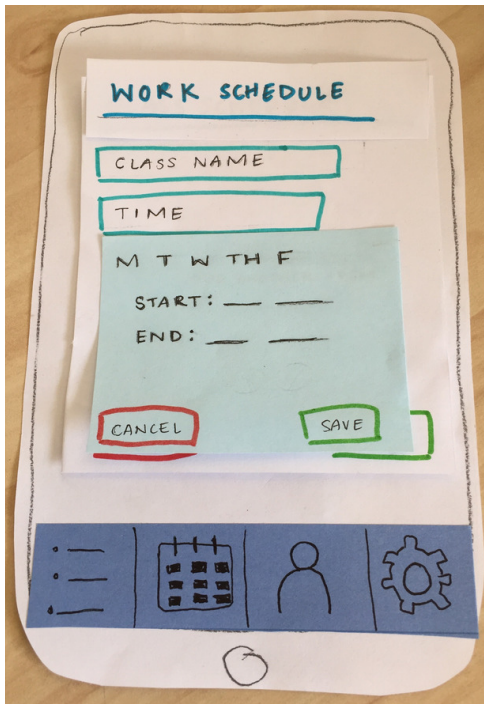
HIGH FIDELITY PROTOTYPE
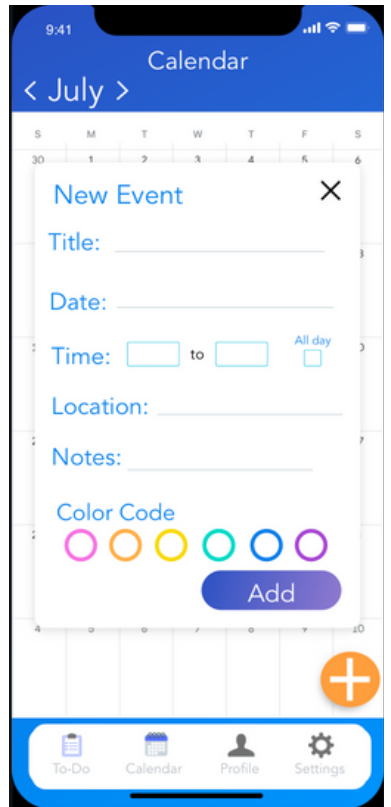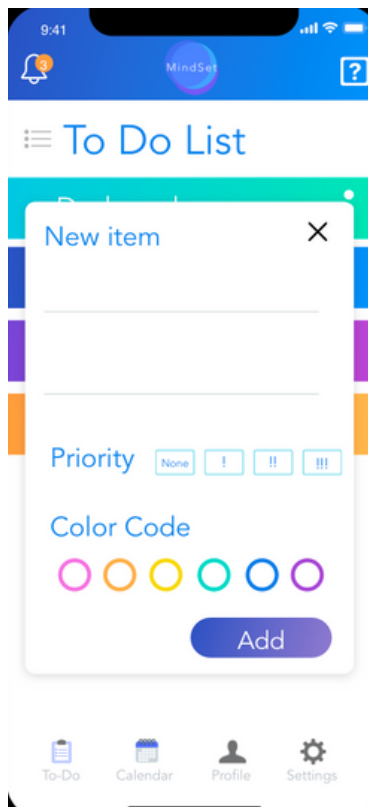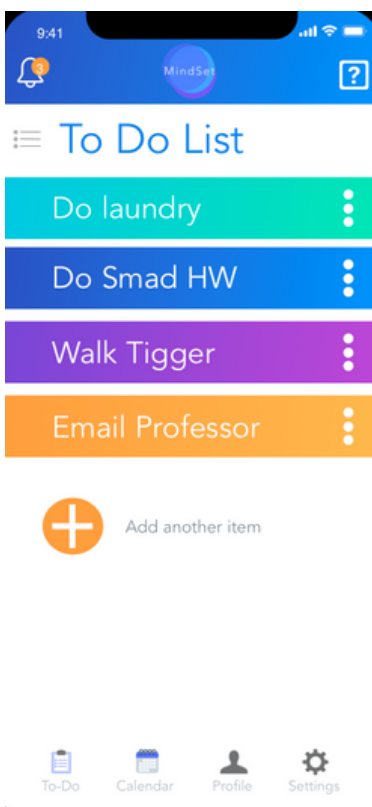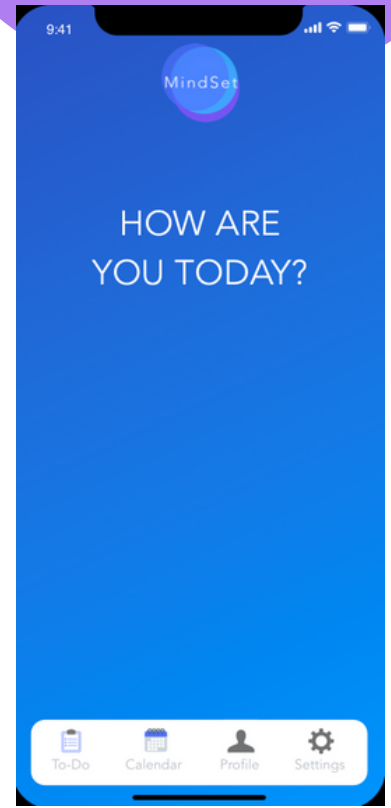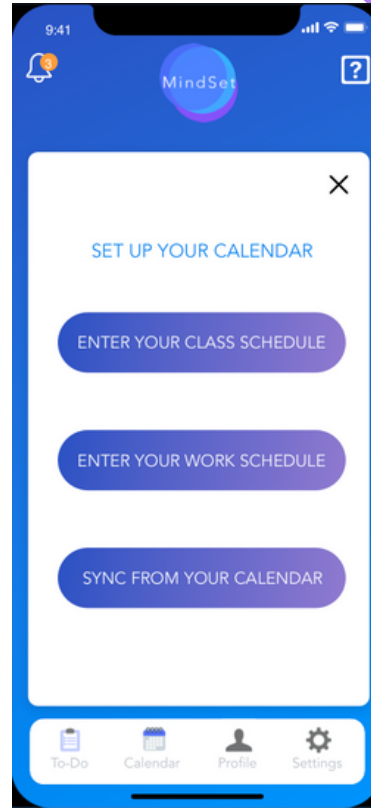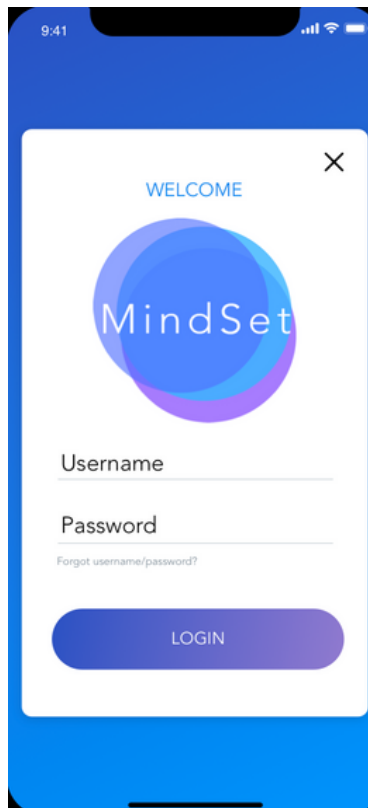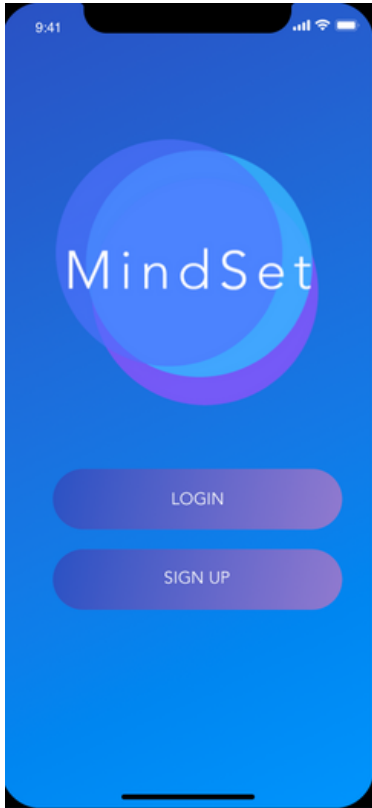
CONCLUSION

Throughout this semester, our group has worked hard together to turn a concept into a reality. We did lots of brainstorming and researching and refining to come up with our final concept of MindSet. We interviewed students to learn more about our users and their needs and wants. We used our user research to come up with personas, scenarios and storyboards portraying how this mobile application could help our users. We then used craft supplies to create paper prototypes of each screen in our application and used them to test how our users interact with our application to complete different tasks. We then took the complaints, observations and suggestions from the user testing to develop a digital prototype using Axure RP and Sketch. After completing our first digital prototype, we did more user testing. We then used those complaints, observations and suggestions to tweak our prototype to create our final high fidelity prototype. This project has taught us so much about the entire user experience process from research to prototypes. We are so proud of our application, "MindSet", and we cannot wait to use what we learned in the real world one day.

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