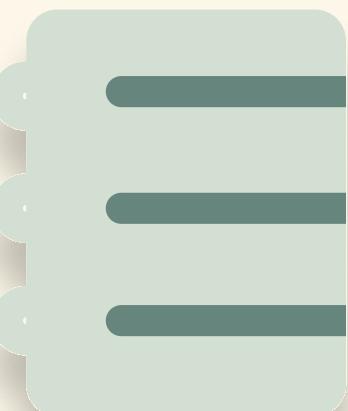


APRIL 2025

BookWorm App Case Study

ALLISON LEE

ARTG2401 • INTERACTION DESIGN PRINCIPLES TOOLS • SPRING 2025



AGENDA

Case Study Contents

- 
1. Project Introduction
 2. Design Process
 3. Visual Style
 4. User Testing & Feedback
 5. Iterations
 6. Future Steps
 7. Takeaways

PROJECT INTRODUCTION

BookWorm is an academic app designed for students

An all-in-one app that tracks assignments, integrates with Canvas and Drive, and provides timers for studying.



DESIGN PROCESS

Research & Ideation

Problem: Create a central space to help students organize files and manage time.

Solution: Workspace that utilizes calendars and to-do lists to keep track of things, as well as integrating school-based platforms.

A screenshot of a Notion workspace titled "Assignments". The sidebar on the left includes "Search", "Notion AI", "Home", and "Inbox". Under "Private", there are sections for "Style", "Assignments" (which is selected), "Course Information", "Calendar", "Settings", and "Templates". The main area displays a table of assignments:

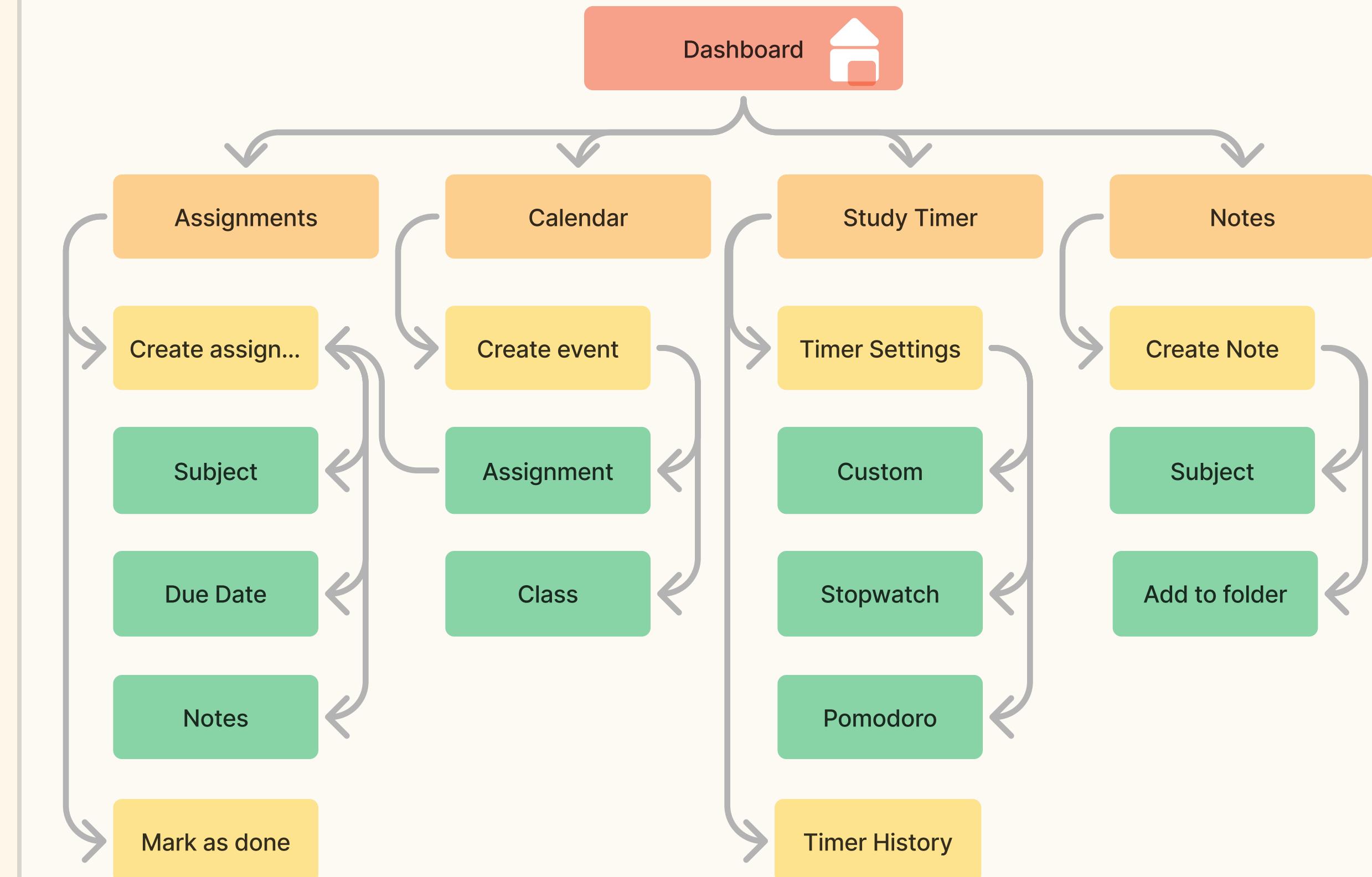
Todo	Name	Class	Notes	Due Date
<input checked="" type="checkbox"/>	Listening Ex. 1	ARTF1240		September 15, 2024
<input type="checkbox"/>	MVC and introducing the model	CS3500		September 16, 2024
<input checked="" type="checkbox"/>	HW 1	CS3500	++ Self Eval due 17th	September 16, 2024
<input checked="" type="checkbox"/>	Readings & Reflections	ARTF1250	4 hrs (start 9/11)	September 17, 2024
<input type="checkbox"/>	The Builder pattern	CS3500	Lec	September 19, 2024

A screenshot of a desktop environment showing multiple windows. On the left, a "Drive" window shows a "My Drive" folder highlighted. In the center, a "Dashboard" window from "Khoury Student Services" displays two cards: "2023-2024 Khoury First Year Experience" and "Khoury Student Services". On the right, a "To Do" list window contains several items:

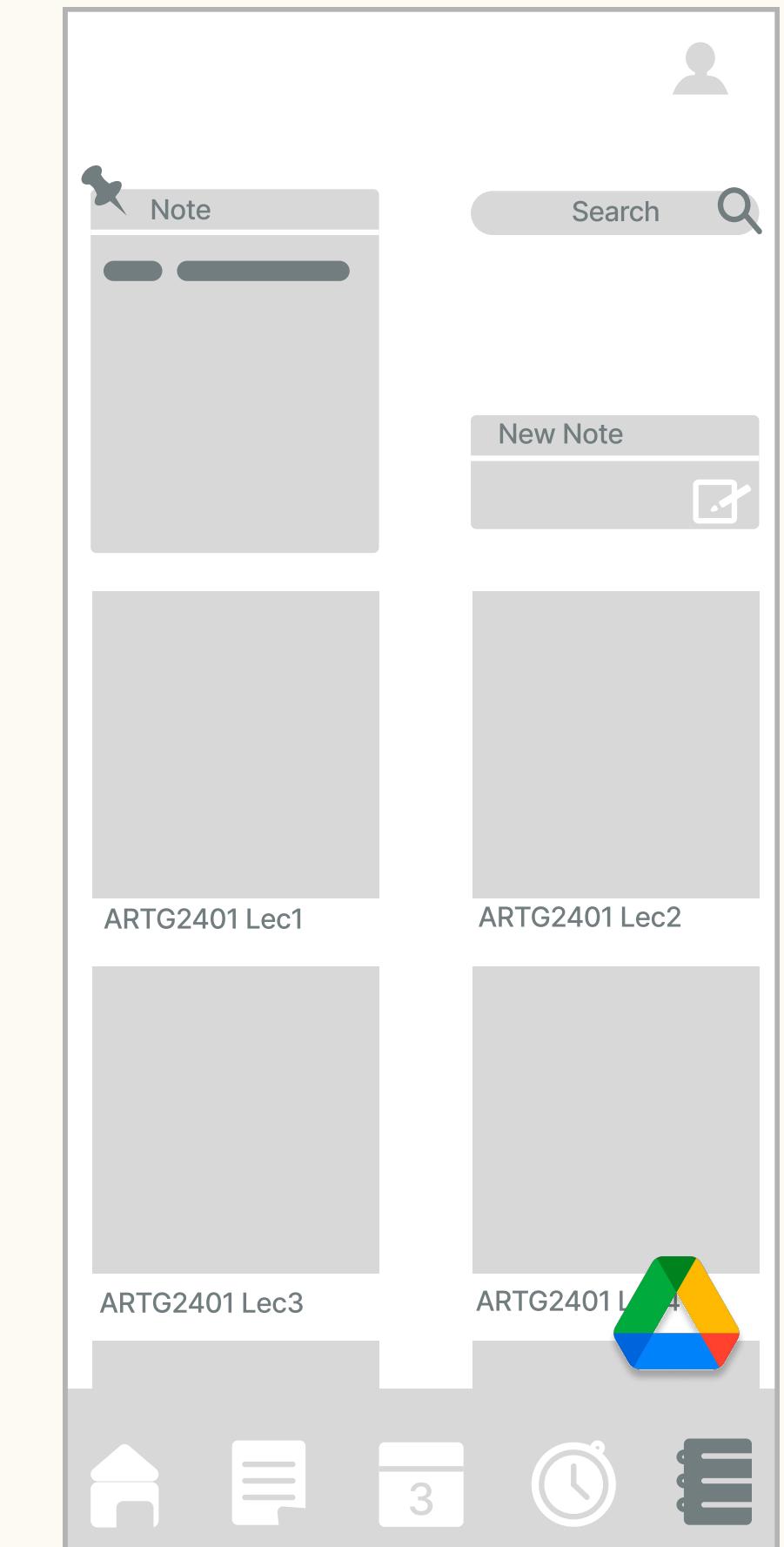
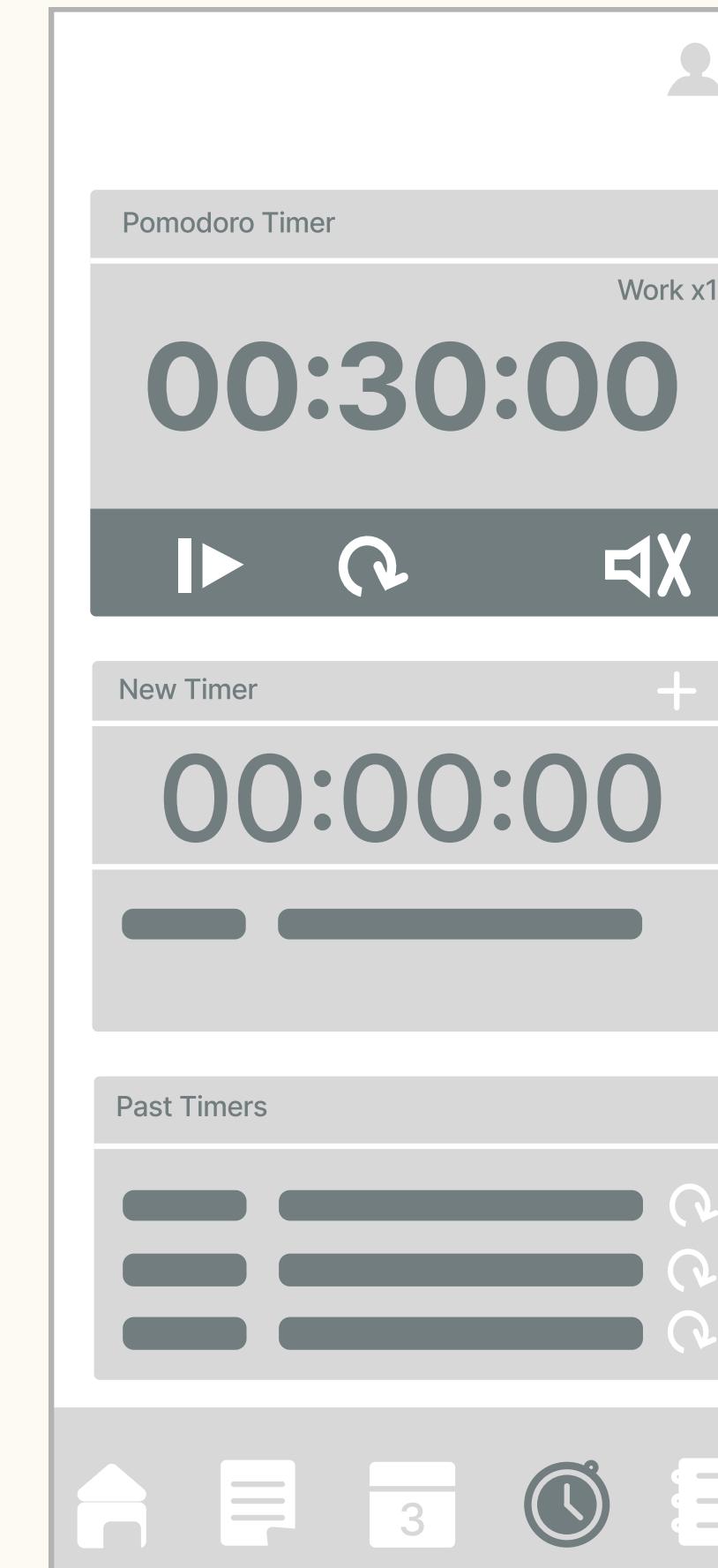
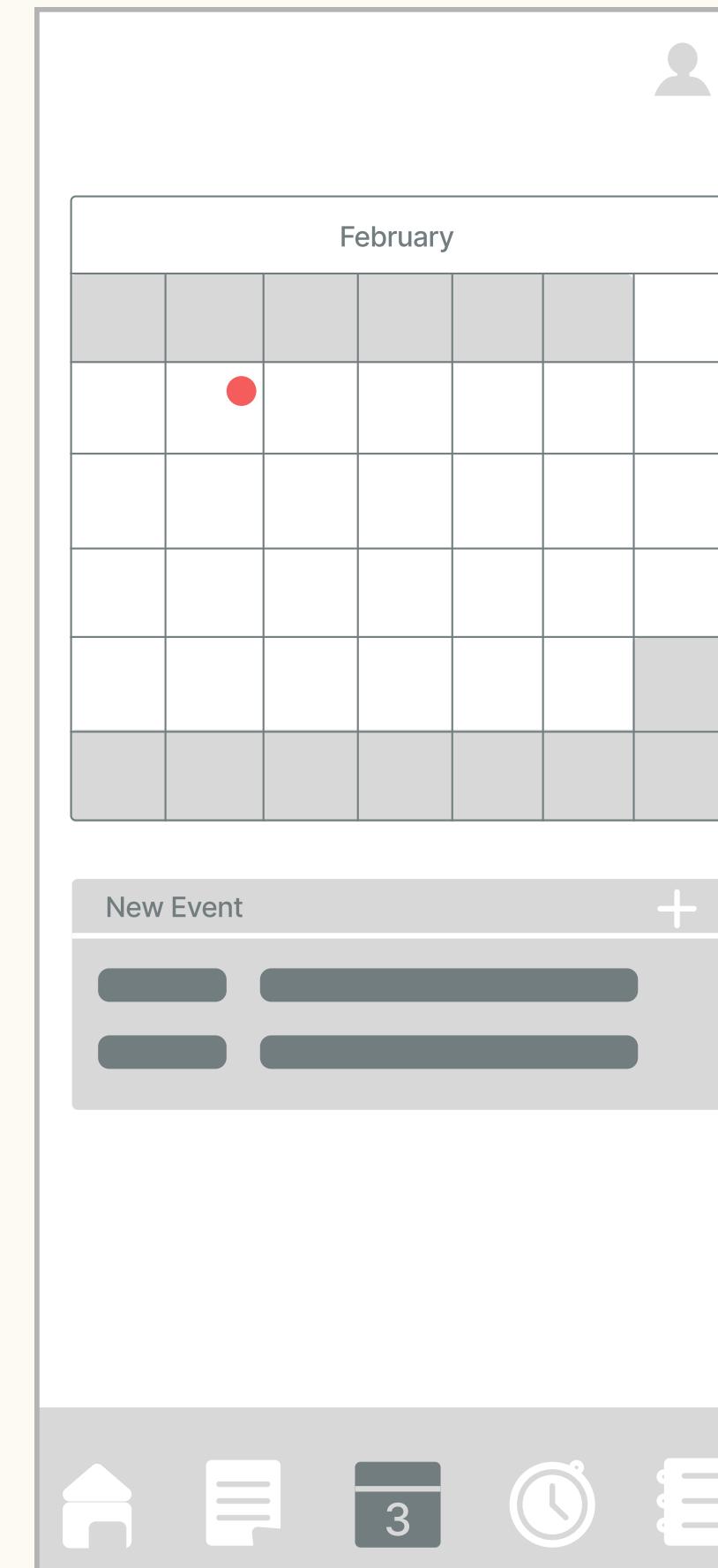
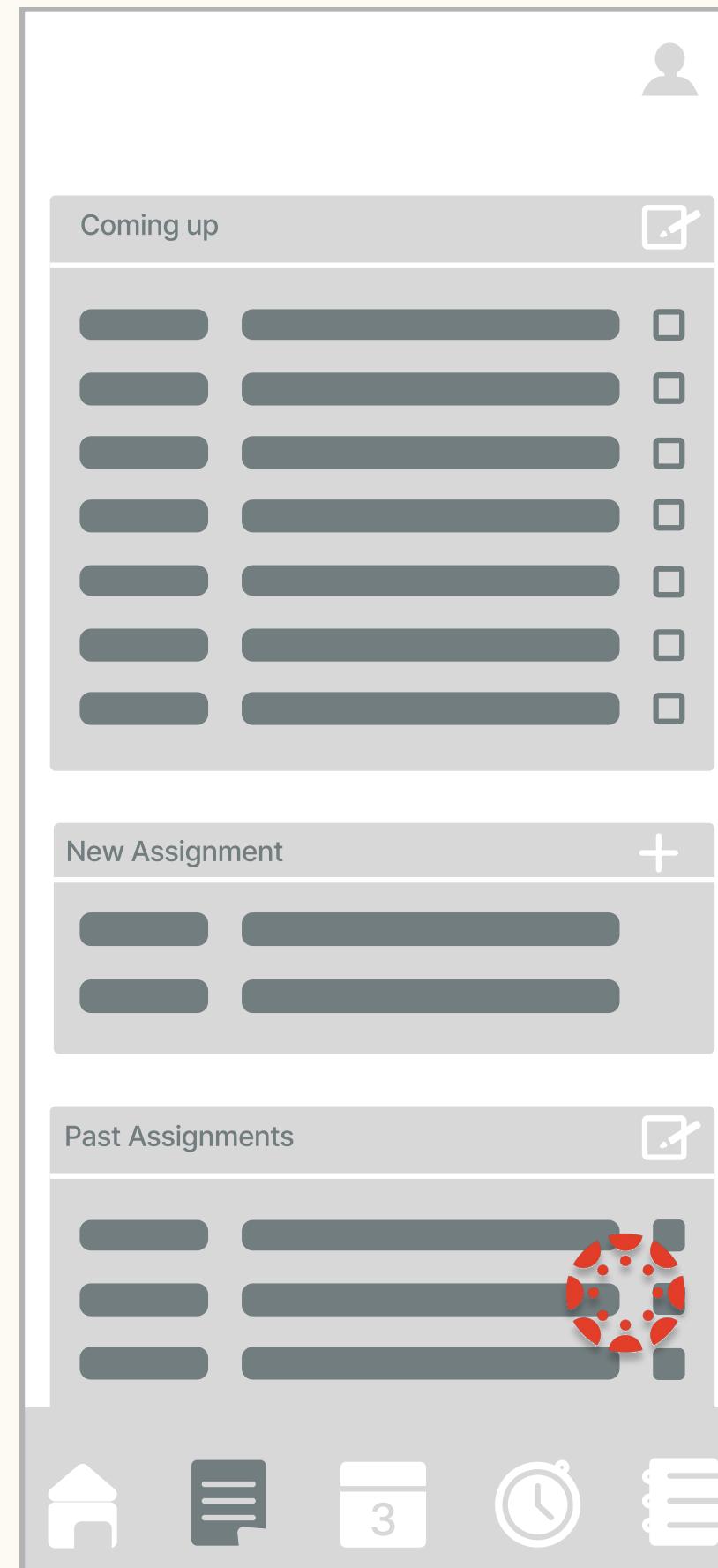
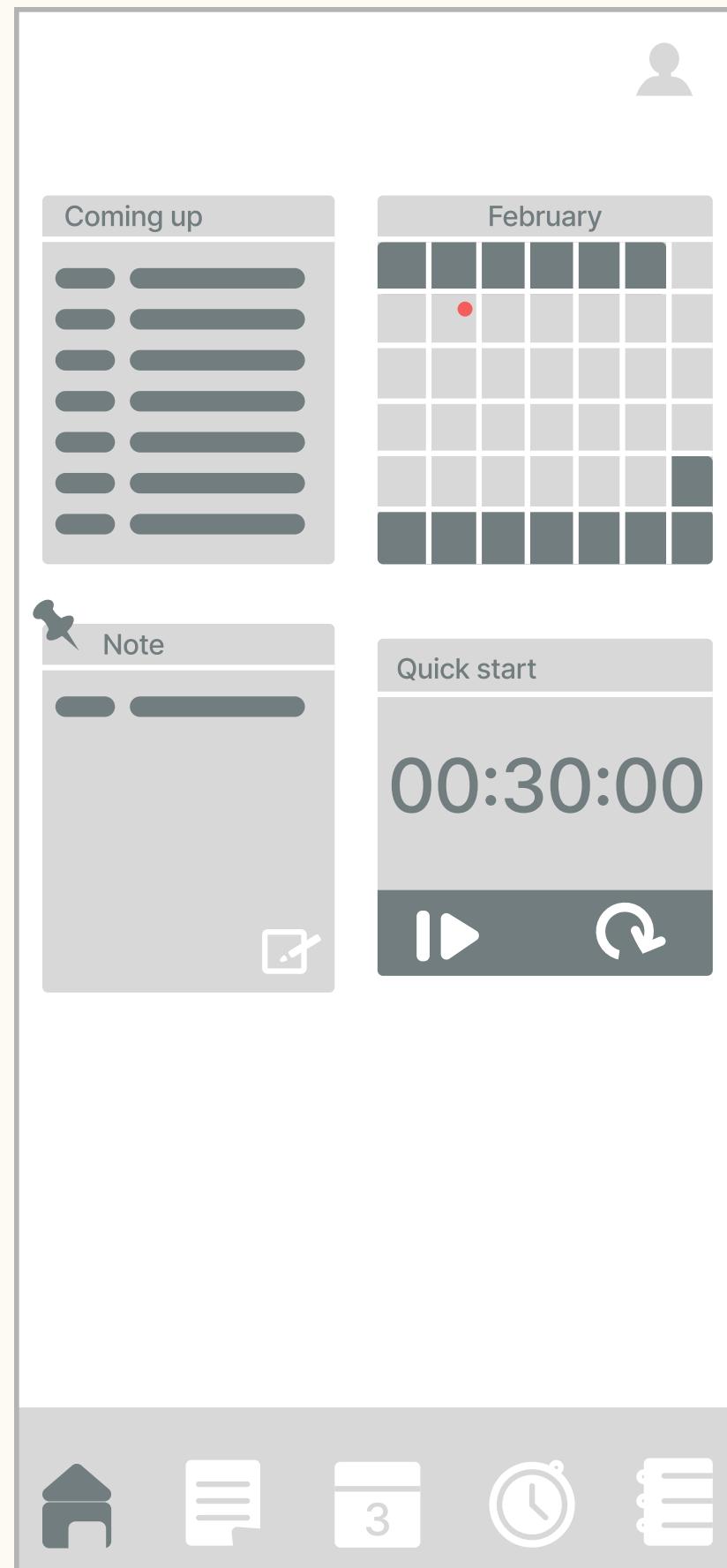
- Virtual Drop-In Hours today 1:30-2:30 CS1210 30305 Professional Development Co-op SEC 02 Spring 2025 [VTL-OL] Apr 7 at 9:56am
- Feedback for day #2 presentations (due Tuesday 12pm) IS4300 34192 Human Computer Interaction SEC 02 Spring 2025 [BOS-1-TR] Apr 7 at 4:27pm
- I2 Citations Revise and

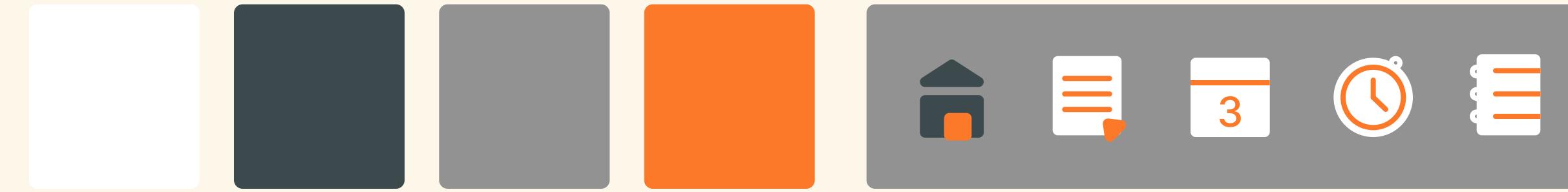
Sitemap

Features: Four tabs with essential study-gear functions



DESIGN PROCESS • WIREFRAMES





Visual Design

Design Q: Does it fit the posture?

Considerations: Contrast, aesthetic, accessible, fun?



Match industry standards



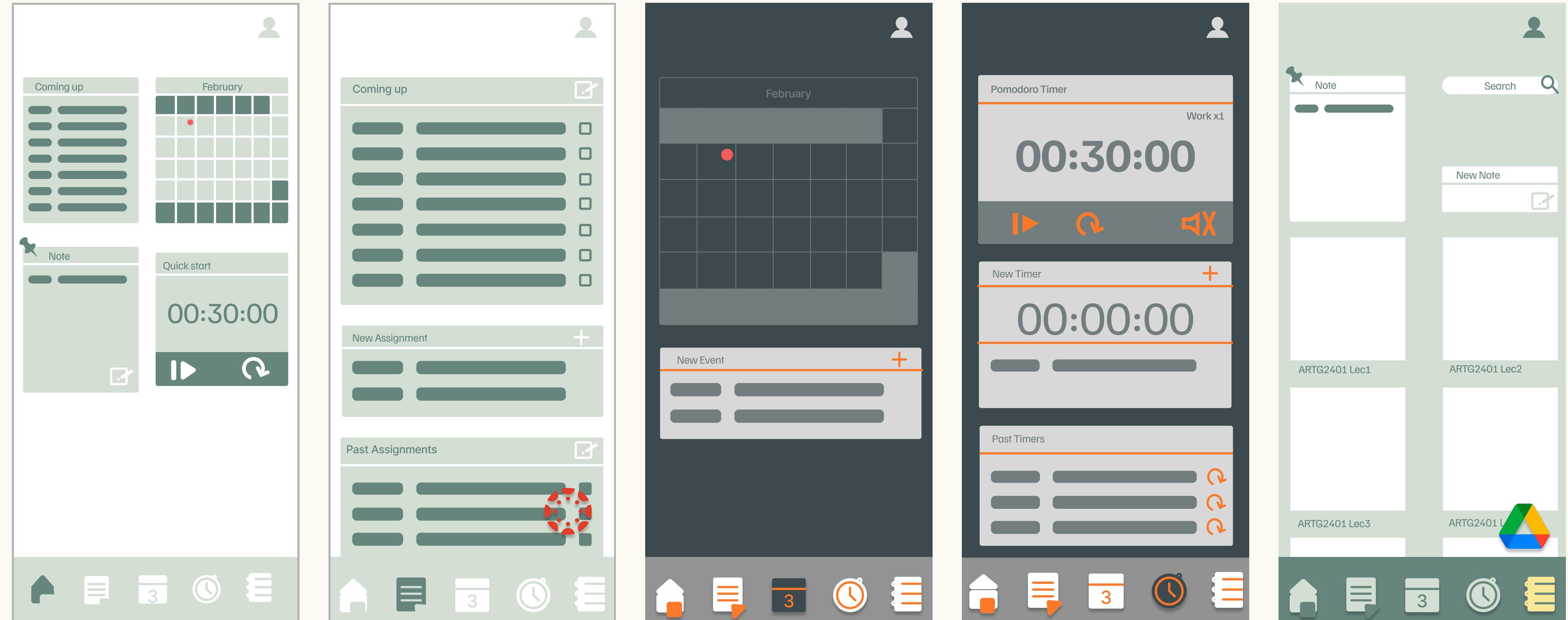
OPTION 1



Typeface 2:
Grandstander

OPTION 2

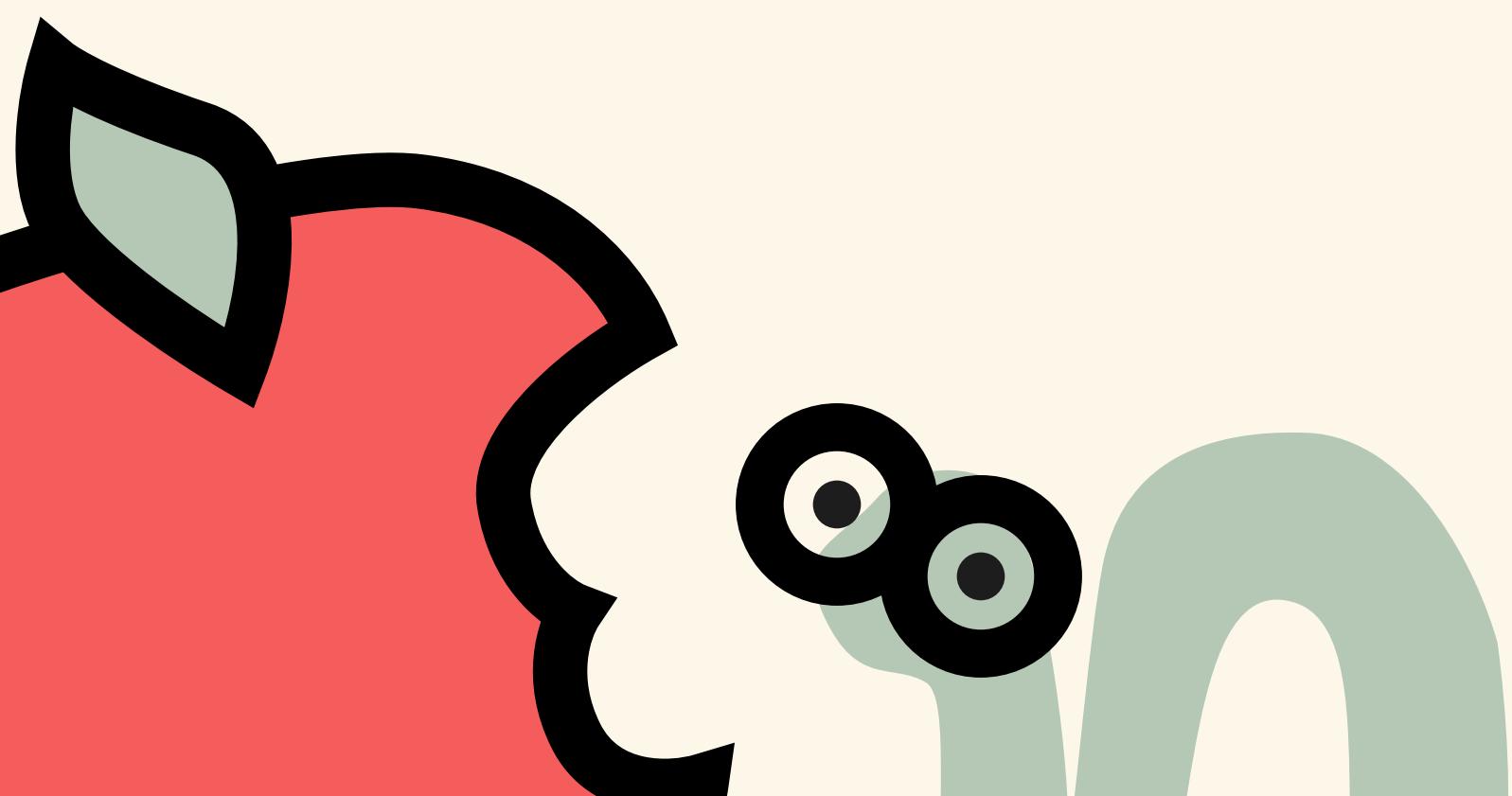
VISUAL STYLE



Questions

Asked three potential users about their exploratory experiences

- How did using the app (BookWorm) **make you feel** about staying on top of homework?
- What were the **pain points** in the app's tasks and processes? What changes would have made them **easier**?
- How **often** would you use BookWorm once fully developed? (Why, why not)
- If there were any **additional features** or changes that BookWorm made, what would you like to see?



Insights

A few categories of user behavior in feedback:

- Personal **motivators** and patterns of behavior.
- Individual needs sometimes held tension, where they had different **study habits**.
- **Aesthetic** feedback.

“

I would be motivated to use this app because of the worm.

— TEST USER

“

It was a bit hard to read at times.

— TEST USER

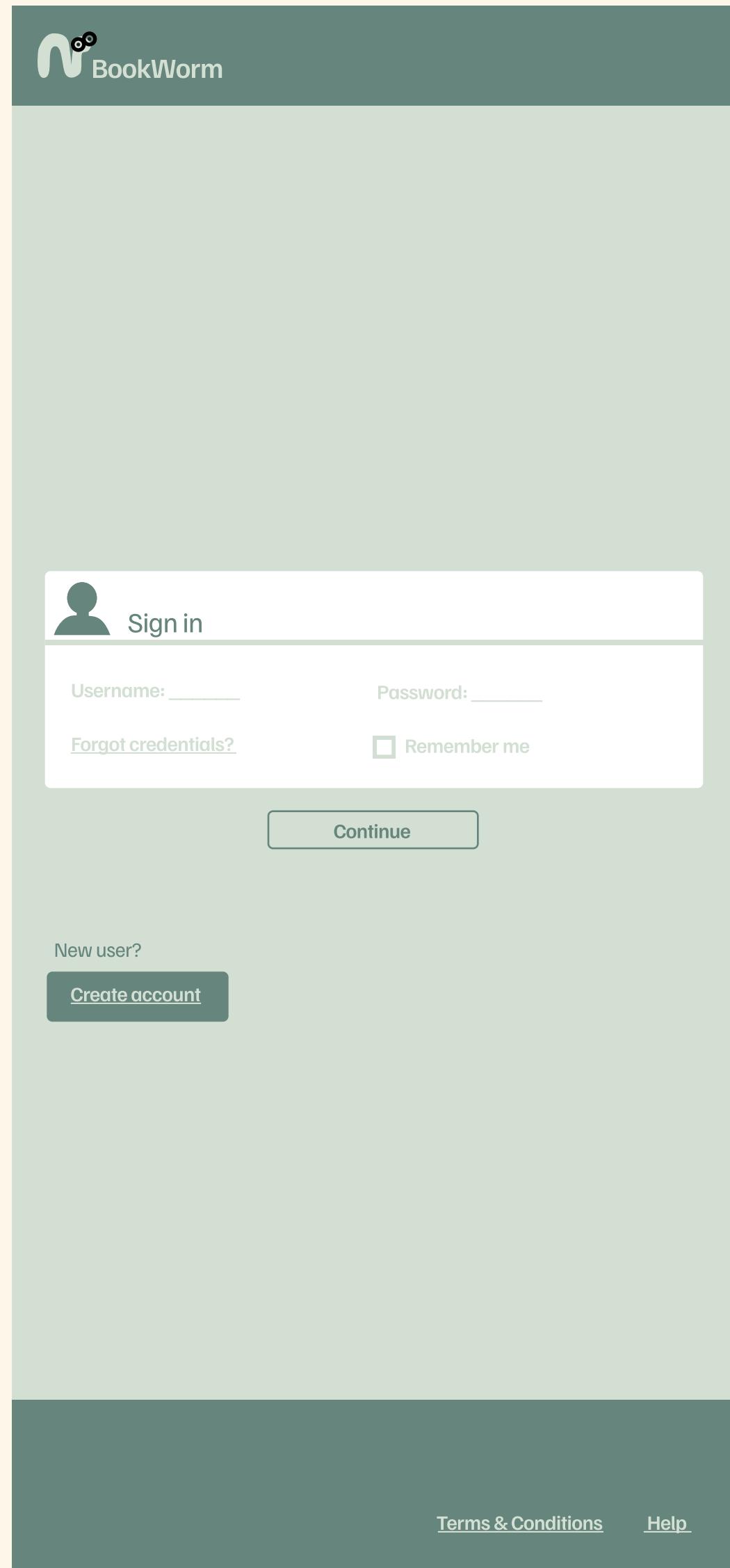
“

What if there was a reward?

— TEST USER

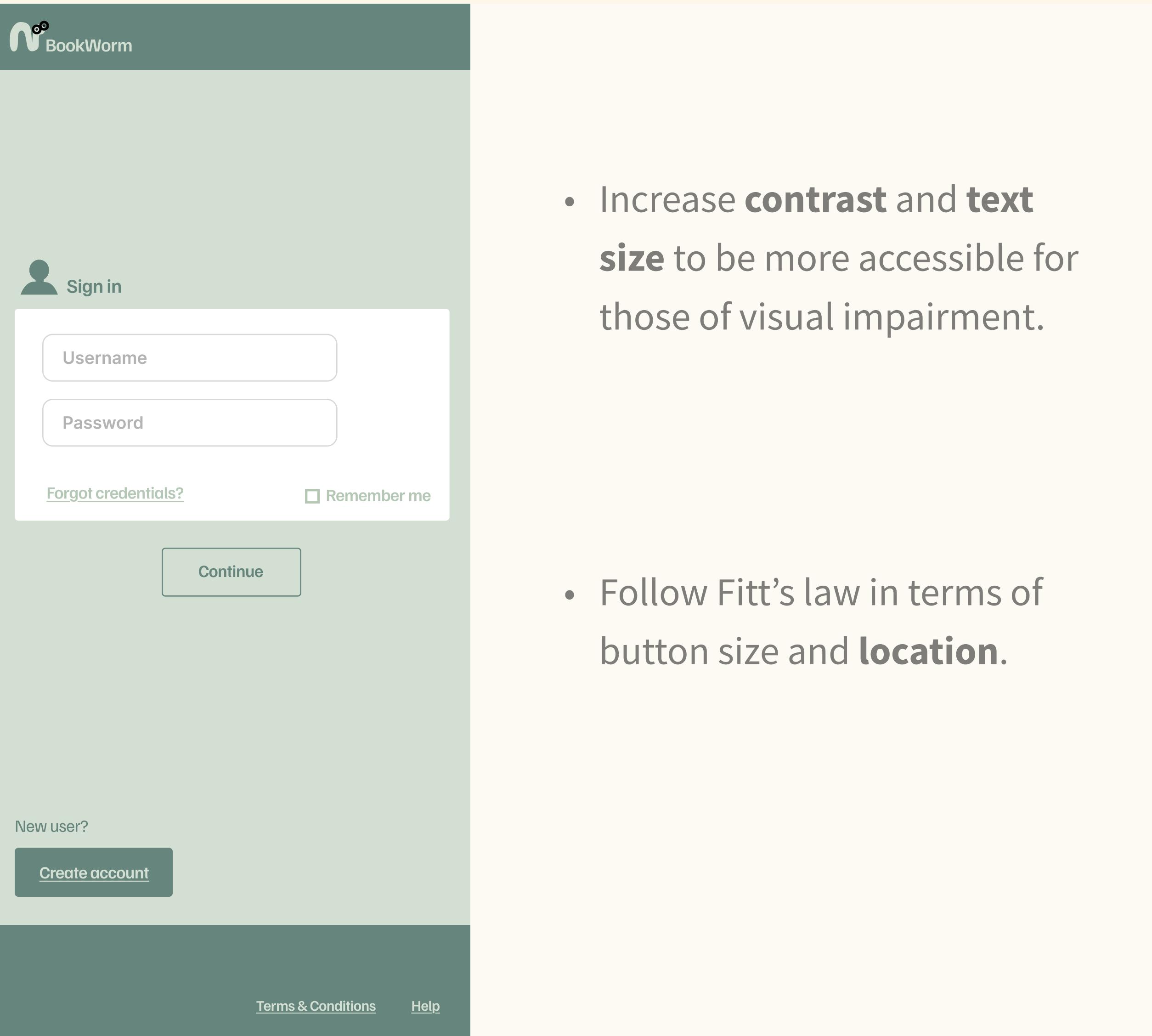
Iterations:
How the design evolved based on testing and
feedback

BEFORE



The 'Sign in' form is located at the top center of the page. It features a white header bar with a user icon and the text 'Sign in'. Below this is a light gray input field containing two text boxes: 'Username:' and 'Password:', each with a placeholder. To the right of the password box is a 'Remember me' checkbox. At the bottom of the input field are two links: 'Forgot credentials?' and 'Create account'. A large green 'Continue' button is centered below the input field. At the very bottom of the page, there is a dark green footer bar with the text 'New user?' and a 'Create account' button.

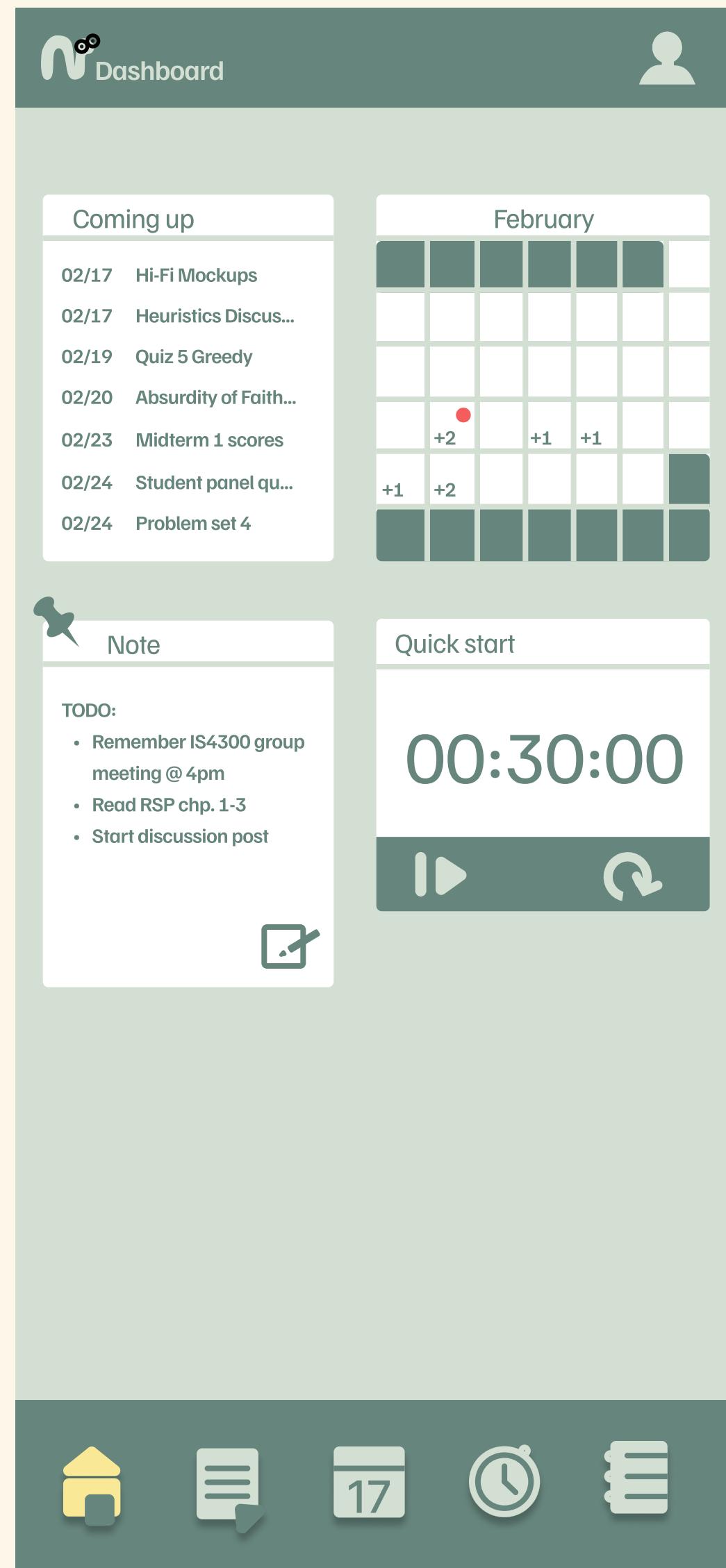
AFTER



The 'Sign in' form has been updated with a more modern design. It now includes a larger user icon and the word 'Sign in' above the input fields. The input fields are enclosed in a white rounded rectangle. The 'Forgot credentials?' and 'Create account' links have been moved to the bottom of the input field area. The 'Remember me' checkbox is now positioned to the right of the password input. The 'Continue' button has been reduced in size and moved to the bottom of the input field. The overall layout is cleaner and more accessible. The 'New user?' link and 'Create account' button remain in the dark green footer at the bottom of the page.

- Increase **contrast** and **text size** to be more accessible for those of visual impairment.
- Follow Fitt's law in terms of button size and **location**.

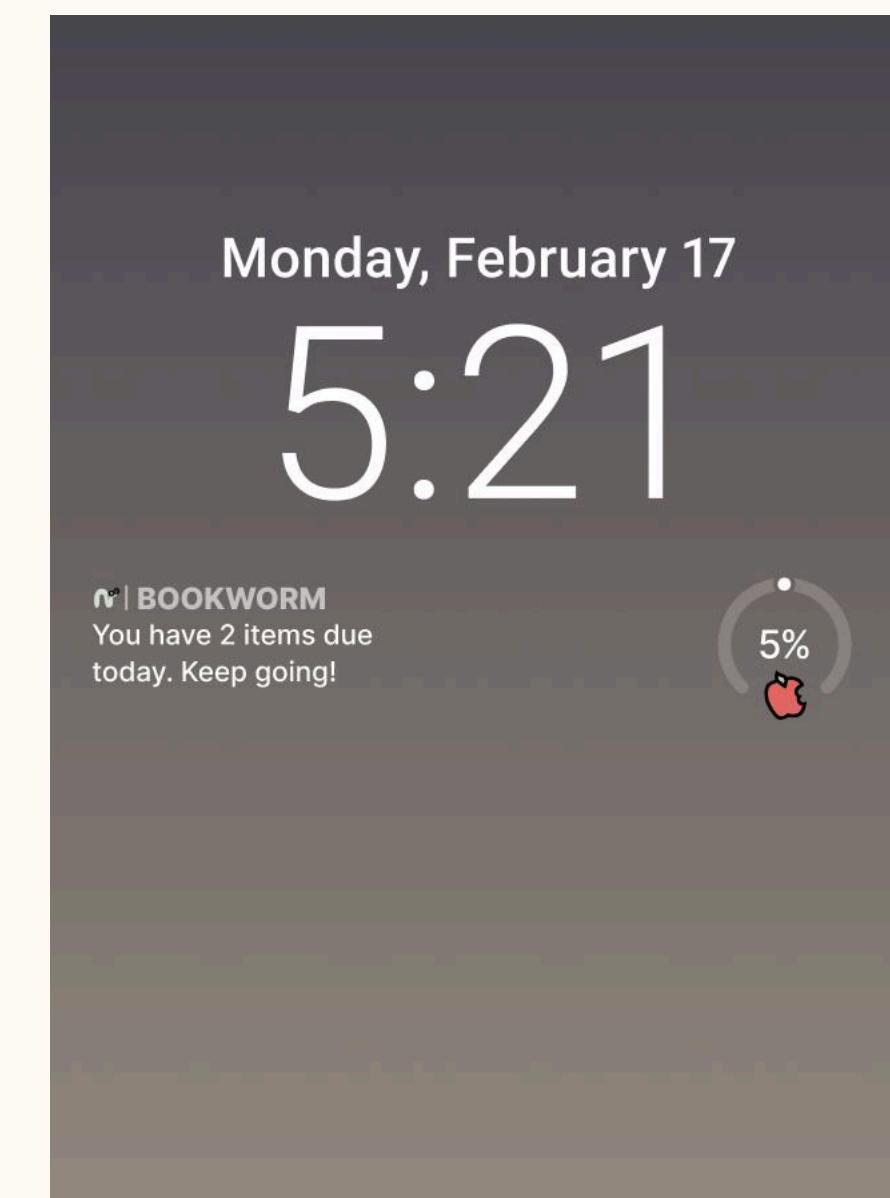
BEFORE



AFTER



- Gamification; I learned that a **reward system** would be a motivator. Also expressed desires for something of **visual interest**.



BEFORE

The 'Assignments' app interface is shown in its original state. At the top, there's a header with the 'Assignments' logo and a user icon. Below the header is a toolbar with buttons for 'Coming up', 'All', 'Sort', and a search/filter icon. The main area displays a list of assignments under the heading 'Coming up'. Each assignment row includes a date, course number, name, and a checkbox. A 'New Assignment' button is at the bottom of this list. Below this is a section for creating new assignments with fields for 'Due Date' (MM/DD) and 'Course Number', and an 'Add' button. The bottom part of the screen shows a list of '50 Past Assignments' with similar columns: date, course number, name, and a small circular icon. A navigation bar at the bottom features icons for Home, Chat, Calendar, Clock, and Lists.

AFTER

The 'Assignments' app interface is shown after a redesign. The header and toolbar remain the same. The 'Coming up' list has been replaced by a modal dialog titled 'New Assignment'. This dialog contains fields for 'Assignment Name' and 'Course Number', with a 'Due' section showing 'Feb 17, 2025' and '9:40 AM'. It also includes 'Cancel' and 'Add' buttons. Below the modal is a simplified 'Post 50' toolbar. The 'Past Assignments' section is now a smaller list at the bottom of the screen. The navigation bar at the bottom is identical to the 'Before' version.

- Refine some of the UI design to be more **minimalist** and aesthetically pleasing.
- Make clear the **affordances** of each item.

ITERATIONS • HI-FI MOCKUP OVERVIEW

Dashboard

Coming up

- 02/17 Hi-Fi Mockups
- 02/17 Heuristics Discussion Post
- 02/19 Quiz 5 Greedy
- 02/20 Absurdity of Faith Reading
- 02/23 Midterm 1 scores
- 02/24 Student panel questions
- 02/24 HW: Problem set 4

Note

February

+1	+2	+1	+1
+1	+2		

Keep going!
5% work done



Quick start
00:30:00

Icons: Home, Chat, Calendar, Clock, Lists

Assignments

Coming up

- ARTG2401 Hi-Fi Mockups
- IS4300 Heuristics Discussion Post
- PHIL1130 Quiz 5 Greedy
- PHIL1130 Absurdity of Faith Reading
- CS3000

New Assignment

Past 50

- IS4300 G2-Team Interviews
- PHIL1130 Written Exam
- PHIL1130 Quiz 5 Greedy
- PHIL1130 Absurdity of Faith Reading

Icons: Home, Chat, Calendar, Clock, Lists

Calendar

Year **Month** (Selected) **Week** **Day**

February 2025

New Event

Assignments

Today **All** **Sort** **Edit**

- ARTG2401 Hi-Fi Mockups
- IS4300 Heuristics Discussion Post

Icons: Home, Chat, Calendar, Clock, Lists

Clock

Pomodoro Timer
Work x1
00:30:00

New Timer
00:00:00

Label: _____ **Time Set:** _____ : _____ : _____
Repeat: Y/N **Preset:** None

Assignments

- 30min Preset - Pomodoro
- 1hr20min Practice Test
- 10min Break

Icons: Home, Chat, Calendar, Clock, Lists

Notes

Search

Note

- Remember IS4300 group meeting @ 4pm
- Read RSP chp. 1-3
- Start discussion post

New Folder

New Note

Sort by oldest

ARTG2401 Lec1

ARTG2401 Lec2

Icons: Home, Chat, Calendar, Clock, Lists

Profile

StudyBug's Info:

User Stats:

- 23 hr Logged in study timer
- 300 Assignments completed
- 5270 wrd Typed in notes
- 1 yr 3 days Since joining BookWorm

Settings

Display mode: Light

Text size: Medium

Linked accounts:

Email: s*****12@gmail.com

Google: s*****12@gmail.com

Canvas: m*****s@northeastern.edu

Delete Account **Sign Out**

Icons: Home, Chat, Calendar, Clock, Lists

FUTURE STEPS

If I had more time...



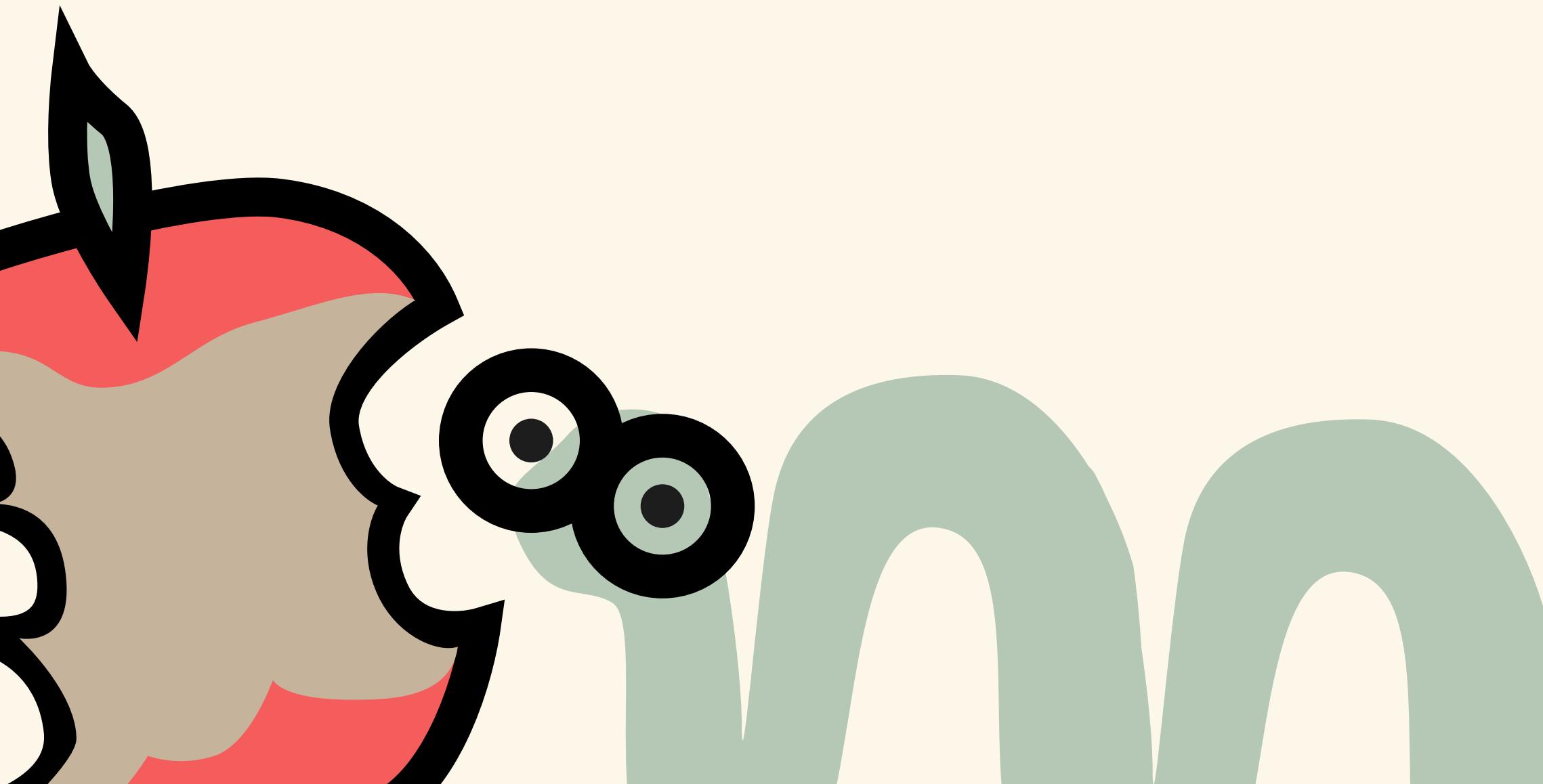
I would...

- Implement a better reward system (gamify)
- Streamline the UI
- More user tests (**Iterate**, iterate, iterate)
- Differentiate between other apps (make unique)
- Flesh out all interactions

TAKEAWAYS

What I learned

In the process from initial research through iterations



How to:

- Discover **needs**
- Create sitemaps and **wireframes**
- Determine **style guide** requirements
- Create **components** and **micro-interactions**
- Respond to **feedback**

CONCLUSION

Explore the prototype:

Workflow 1: Create a new assignment

Workflow 2: Explore the interface

<https://www.figma.com/proto/kUQKiky9S9Q5vGCkcEFh3Q/StudyAppWireframe?node-id=170-5410&t=82aHsKyjml9AG5v-1&scaling=scale-down&content-scaling=fixed&page-id=68%3A1249&starting-point-node-id=170%3A5410&show-proto-sidebar=1>

