Yoonsoo Jaine Shin
Rahul Kapoor
2026. 02. 06.

# THESIS 2

## Design Research Sprint

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# Project Overview

**69%** of remote workers report burnout from digital tools, with professionals logging extended hours due to **blurred boundaries**.

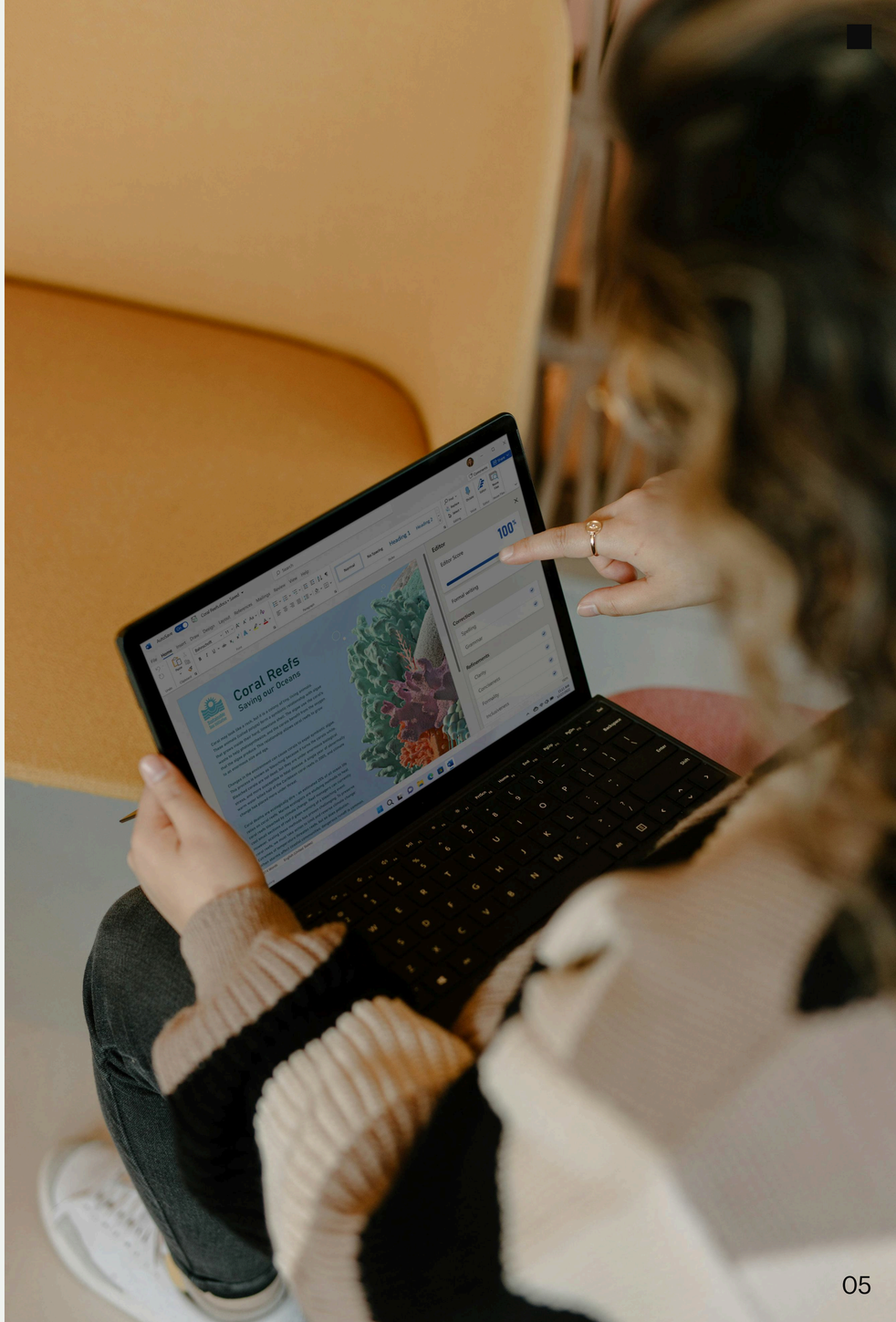
(Forbes Advisor)

# **72%** of remote/hybrid workers use their **bedroom or living room** for work.

(TINYpulse)

However, according to TINYpulse, 72% of remote or hybrid workers use their bedroom or living room as their workspace. This finding highlights a major issue in remote work: the problem of **limited physical space.**

Therefore, there is an opportunity for design intervention: **to create a clear boundary between work and personal life within *digital spaces,*** helping users stay focused and establish environmental triggers for their brains.



# **Small rituals** *(e.g., physical transitions, sensory shifts)* reduce stress and improve performance by up to **30 percent.**

(Coachbit)

According to Coachbit's research, rituals can reduce stress and improve performance by **up to 30 percent**. Transition rituals act as predictable bridges between activities, easing cognitive load and reducing emotional resistance to change.

This supports my hypothesis that remote workers need small rituals to **help them switch contexts** and that **lacking these rituals becomes one of the key obstacles they face.**

*How might we...*

incorporate **physical cues** to help users

switch seamlessly between work and personal **modes**

in digital spaces for better **work–life balance**?

# Methods overview

| | | |
|---|---|---|
| **Week 01** | Take-home | Research Planning |
| **Week 02** | In-class | Assumption / Risk Mapping |
| **Week 02** | Take-home | Card Sorting |
| **Week 03** | In-class | Low-Fi Prototype |
| **Week 03** | Take-home | Scenario Walkthrough |
| **Week 04** | In-class | Synthesis / Insight Framing |
| **Week 04** | Take-home | Concept Testing |
| **Week 05** | In-class | Prepare for Mid-Fi |

# Assumptions

From the assumption mapping, I identified three key assumptions to validate in Project 2:

- macOS Shortcuts **can reliably perform** the required actions.
- **Small rituals can help users** switch contexts.
- Remote workers **want support** to stay productive after work.

Since my product aims to help remote workers work more effectively while **maintaining a healthy work–life balance**, these assumptions became the core focus of Project 2.

# Research Goal

1

## Technical Feasibility

To evaluate whether macOS Shortcuts can reliably execute mode-switching actions (e.g., opening and blocking apps) in real remote work settings.

2

## Behavioral Impact

To validate whether if small physical or digital rituals help remote workers smoothly transition between work and personal modes.

3

## User Value After Work

To understand whether remote workers perceive post-work activity recommendations as supportive rather than cognitively demanding, and whether these features help sustain productivity after work.

# Main Insights

# Insight 01 — Four Recurring Keywords: Task List · Reward · Memo · Time

During the *interviews*, I noticed **four recurring keywords** when I asked participants how they currently manage their struggles with staying focused.

Afterward, I analyzed the interview scripts and grouped the responses by similarity *(Affinity Mapping)*. This revealed that users typically **rely on four main strategies:** organizing their **task lists**, **rewarding** themselves after achieving goals, using **sticky memos** to offload and store ideas, and using time-limit or distraction-blocking apps to **support their time management.**

Through the *user needs statement* activity, I was able to clarify the underlying motivations behind these behaviors. It became clear that users are not only trying to stay focused, but also **seeking clearer boundaries** between work and personal time, **more intentional break structures**, **tangible transition cues**, and **support for sustaining productivity** even after work.

## How they're dealing with

**Task List:** Organize their tasks using a to-do list or planner

**Reward:** Rewarding themselves after achieving goals

**Memo:** Use sticky memos to offload and store ideas

**Time:** Using time-limit or distraction-blocking apps

# Invalid

From the Popular Media Scan in Thesis 1, the idea of **creating a supporting tool** was one of the most important points for me. However, the prototype I created for Thesis 1 had too many features at the same time, which **caused frustration and felt overwhelming** for users, rather than functioning as a supporting tool.

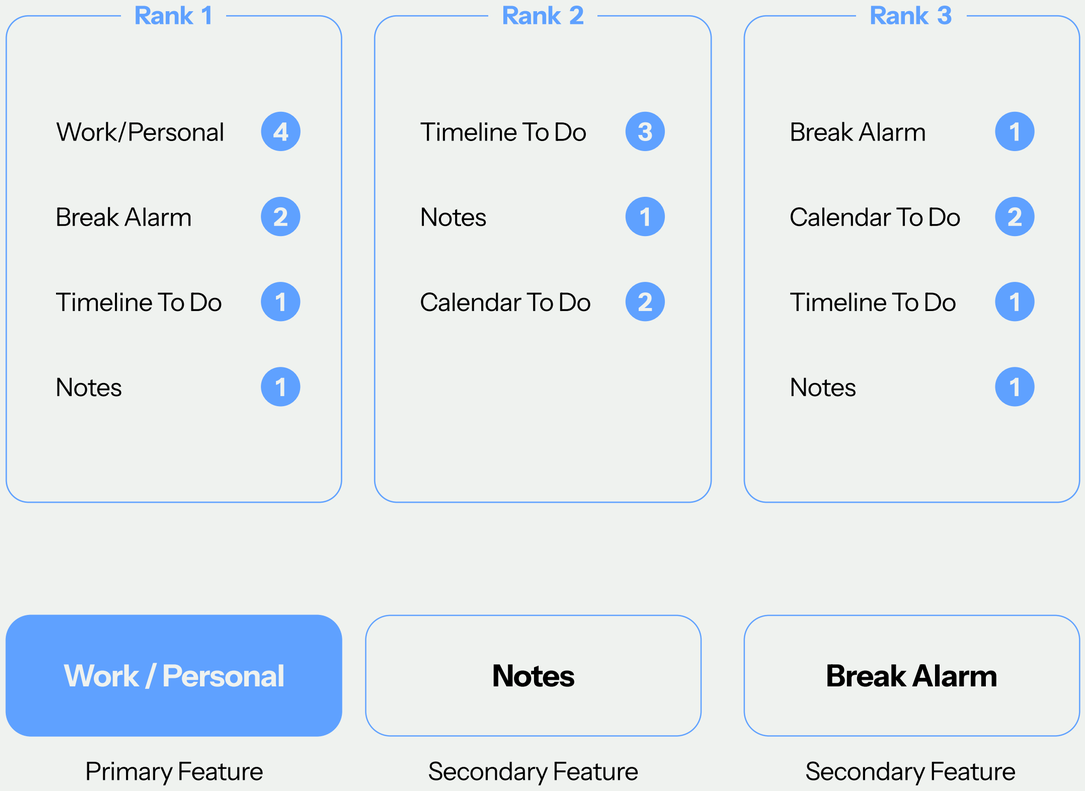
Therefore, after conducting assumption and risk mapping, I decided to **design an experience for remote workers that supports switching between two different modes**: work mode and personal mode. Through this process, I was able to clarify my assumptions and rethink the project from the early stages, helping me better align the product with the real needs of the target audience.

# Insight 02 —
# Importance of Proper Break Time

My research also revealed the **importance of taking proper breaks.** At first, I did not consider break time as a major focus, as my product was primarily leaning toward digital space separation. However, during the interviews, all participants **emphasized how essential proper break time** is, and **how difficult it is to take meaningful breaks** while working from home.

This result surfaced again during the affinity mapping activity, reinforcing the importance of break structures. Based on this insight, I **incorporated a Pomodoro-based break alarm** feature into my initial wireframes.

The ranking test further validated this decision. One participant shared, “I’ve found Pomodoro effective because it helps me use my time more efficiently despite getting easily distracted. Including this feature would benefit users who struggle with time management.” Additionally, t**hree out of five participants** ranked the break alarm as the most important feature.

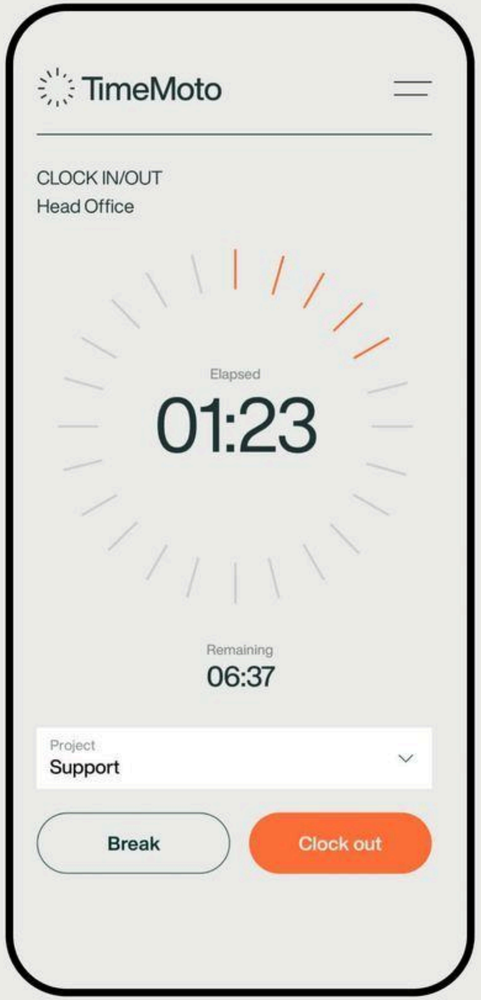


# Valid

I created a flow for the onboarding session and added a Pomodoro feature to understand how users feel about it; whether they consider it an **essential feature** and whether it is **visually attractive** to them.

One participant in the concept testing mentioned, “When I was working as a remote worker, it was hard to take proper breaks due to inconsistent work hours.” This highlights that **providing sufficient break time is important for remote workers** to build a routine and achieve better work–life balance.

Additionally, another participant shared, “I think it is important to choose the right way to visualize your work status, because it affects your mindset.” Although most participants preferred a compact button style for the Pomodoro timer settings, **I plan to add visual elements to better illustration of the working status.**

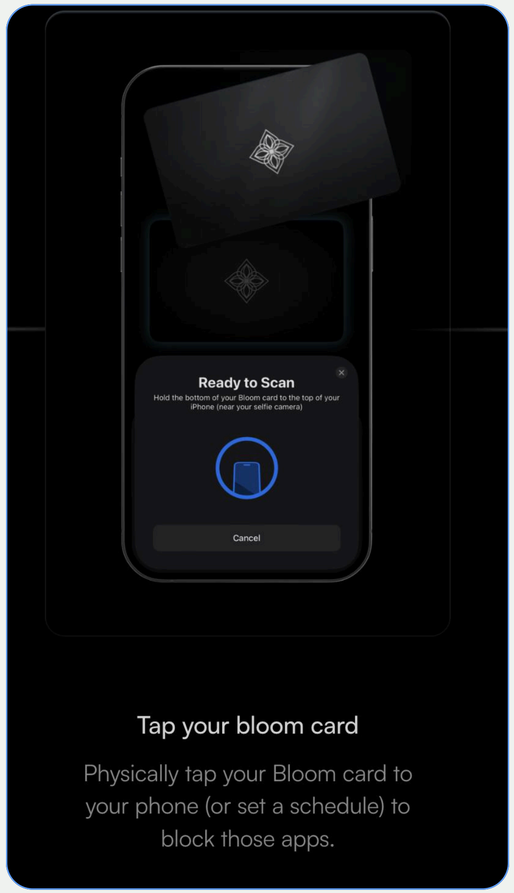


# Insight 03—
# Positive Feedback on Physical Transition

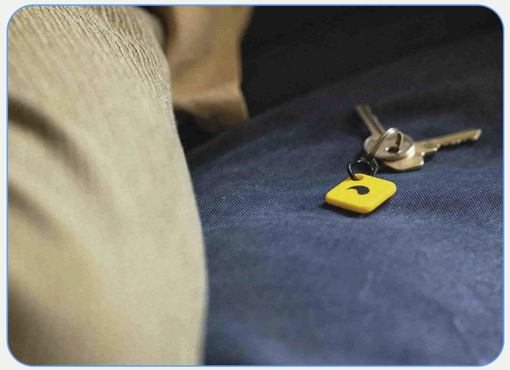
The Popular Media Scan revealed that providing support through **physical elements is highly effective and widely appreciated.** This activity also helped me realize that many remote workers already feel satisfied with their current work setup compared to in-person work, which shifted my direction toward **designing something that supports their experience rather than solving a major pain point.** At this stage, reviewing competitor feedback became valuable: I discovered that **many users responded positively** to physical NFC tags because they offered a clear sense of separation.

Following this insight, I sought additional feedback during the interviews. All participants reacted positively to the idea of a physical element; however, a few (2 out of 5) expressed a desire for **something more than a simple action,** suggesting features like built-in speakers or shortcuts.

This preference also appeared in the co-creation activity. Participants frequently incorporated **physical transitions or tangible elements in their sketches**, emphasizing the potential of a physical component within the solution.



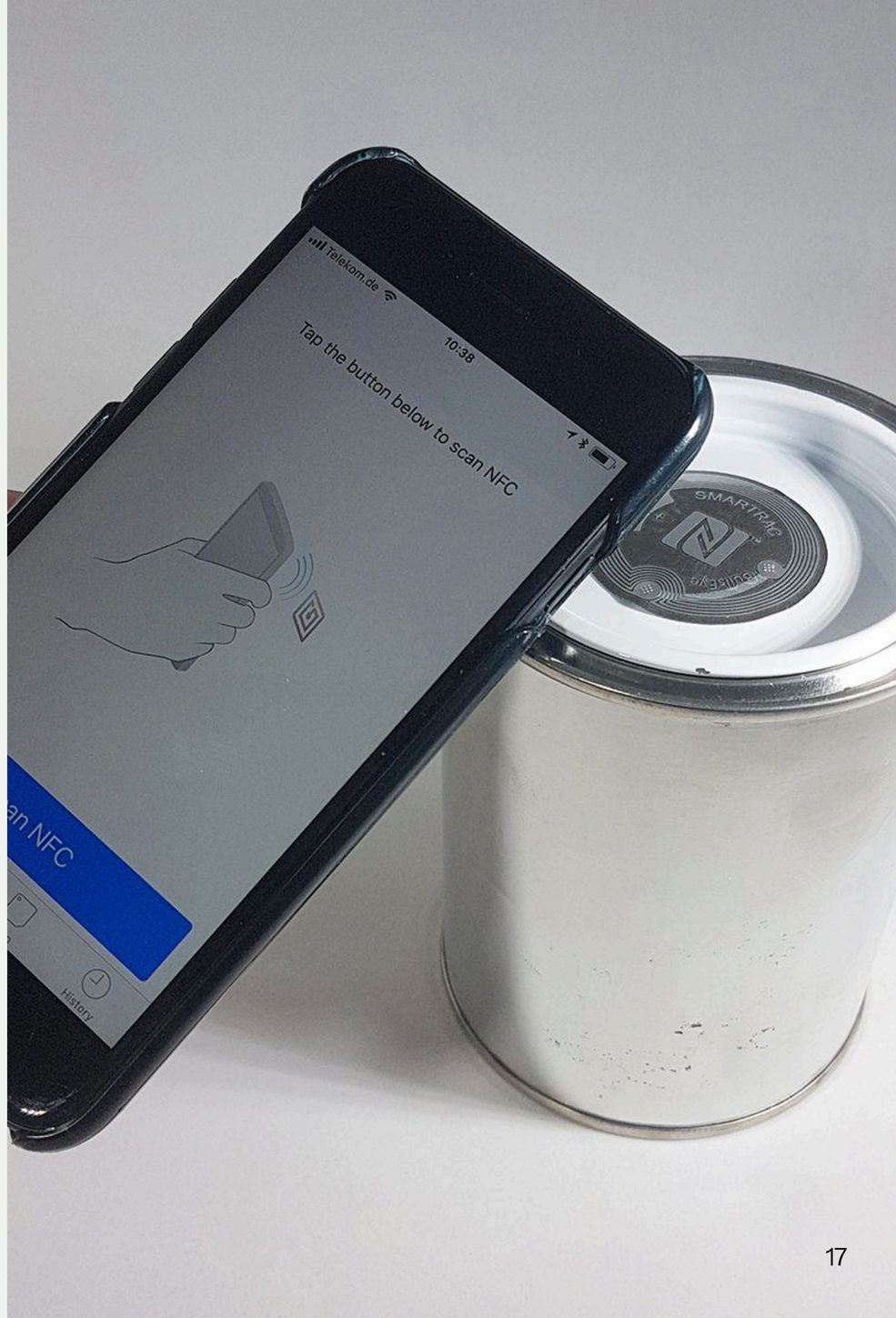




# Valid

There was a concern about using a physical item and action identified during the assumption mapping: **What if users do not want to use a physical item, or what if they find it tiresome?** Therefore, during the scenario walkthrough and concept testing, I asked all participants about their opinions on using a physical element. The questions included: “Do you think NFC tagging is helpful for switching your mindset?” and “Do you think performing a small physical action would help you transition between modes more smoothly?”

All five participants responded that **it would be helpful for switching their mindset.** One participant mentioned that she had never used an NFC tag before and was more familiar with using QR codes, which made the experience feel new and somewhat unfamiliar to her. However, she also noted that using a physical artifact to support a mindset shift was an interesting approach, and emphasized that physical actions could be effective in helping change one’s mindset.

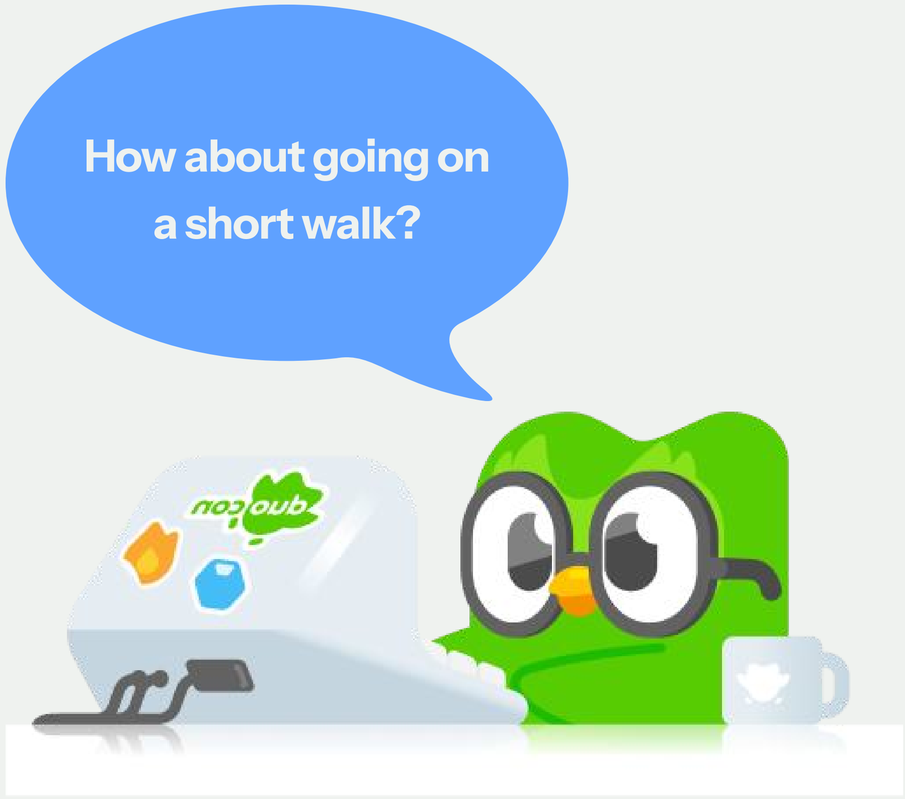


# Insight 04—
# Desire to Stay Productive After Work

From the interviews, 4 out of 5 participants said they usually lie in bed and doomscroll after work. At the same time, 3 out of those 4 expressed **a desire to stay productive after work.** For example, doing laundry or going for a walk instead of immediately lying down.

This pattern also appeared in the co-creation activity. Three participants illustrated a Duolingo-style task recommendation feature **to help them engage in small, productive actions after work.** One participant shared, “And I feel like what if we could I guess after work do some kind of gamifying task?” and added, “I think that (lying on the bed) can be solved or work towards a better direction is what I think. So maybe doing some sort of things like that could help you better focus your time after.”

Based on these insights, I incorporated two different UIs in my initial wireframes: a To-Do task list for work mode and a task recommendation interface for personal mode. In the ranking test, **4 out of 5 participants selected this dual-mode UI as their top feature.**



*Key Insights — Scenario Walkthrough, Concept Testing, Assumption Mapping*

# Valid

Currently, my product has two main modes: work mode and life mode. Reflecting on the interviews I conducted for Thesis 1, I decided to **incorporate a way to support users in being productive after work.** This led me to add activity recommendations that appear after their work session ends.

However, through assumption mapping, I realized that this feature might also require additional cognitive input, which could eventually cause users to stop using it. To validate this hypothesis, I asked participants about this feature during the scenario walkthrough. Most participants responded that **they would continue using it because it allows a high level of customization and functions more as a reminder rather than forcing them to take action.**

Therefore, I decided to keep this idea while adding more motivational elements to encourage post-work activities. For example, the feature can include actions such as linking to maps or guiding users toward activities in a gentle way—supporting transition without pressure, but in a smooth and natural manner.

1

## Freedom vs Accountability

During the scenario walkthrough, a participant noted that **app blockers are easy to bypass**, which often leads users to ignore them. She preferred the concept that required physically separating the phone from the workspace. However, since my product aims to **support remote workers' flexibility**, this insight highlighted the need to balance freedom with accountability.

2

## General Activity Sets

Since one of the key problem spaces was supporting productivity after work, I decided to **recommend activities when users transition into personal mode.** To determine what activities to suggest, I conducted a card-sorting activity to understand which activities users prefer based on their energy levels: high, mid, and low.

3

## Needs of Onboarding

Throughout the process, the need for a clear onboarding experience became evident. Since the core function of the app involves customizing which apps are allowed or blocked in work mode, it was essential to **include this setup in onboarding**. Participants were also curious about how activity recommendations would be generated based on energy levels and **emphasized the importance of customization due to different lifestyles.** Therefore, I designed an onboarding flow for the mid-fi prototype and tested it during concept testing.

# Next steps / Design Decisions

# Explain how your research findings directly led to your next design choices.

Through these research findings, I was able to clarify the overall product flow and prioritize the core and desirable features. Each research method directly informed specific design decisions in the following ways:

- **Assumption / Risk Mapping** → This helped me identify what needed to be validated in Project 2. It clarified the key technical, behavioral, and user-need assumptions, which guided the direction of my research and shaped the overall design flow.

- **Card Sorting Test + Insight Framing** → The card-sorting test enabled me to define activity sets based on users' energy levels. These insights became the foundation for the activity recommendations and provided contextual content to integrate into the product during development.

- **Low-Fidelity Prototype** → By exploring macOS Shortcuts through a simple low-fi flow, I evaluated technical feasibility. This process helped me understand how Shortcuts work and gave me confidence to integrate them into the product more effectively in the next stage.

- **Scenario Walkthrough** → The scenario walkthrough allowed me to validate whether the combined ideas from the card-sorting test and low-fi prototype made sense as a cohesive experience. Based on participant feedback, I decided to use NFC tagging for both check-in and check-out actions.

- **Concept Testing** → Concept testing helped validate the onboarding flow and the initial setup process, which emerged as a core personalization feature. I identified where personalization was essential versus where general settings were sufficient—for example, allowing personalized app-opening settings while keeping app-blocking settings more standardized.

- **Prepare for Mid-Fi** → By synthesizing insights and feedback from all previous research methods, I refined the design decisions and prepared a clearer direction for the mid-fidelity prototype.

# Appendix

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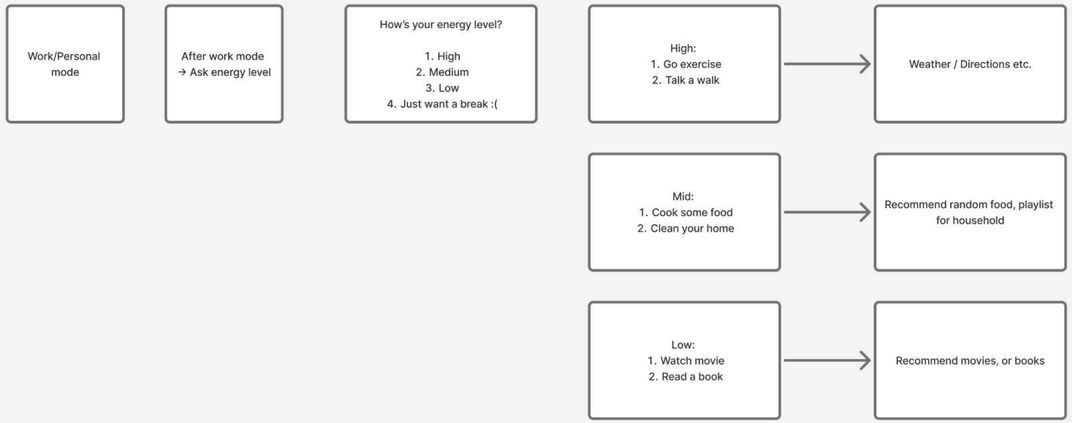
**Contents**

# **Wk(01) Take-home method** Research planning

Link 🔗

| | in-class method | take-home method |
|---|---|---|
| wk01 | - | Research Planning |
| wk02 | Assumption Mapping / Risk Mapping | Card Sorting |
| wk03 | Scenario Walkthrough | Synthesis / Insight Framing |
| wk04 | Low-Fi Prototype | A/B Testing or Concept Testing |
| wk05 | Prepare for Mid-Fi | Mid-Fi Prototype |

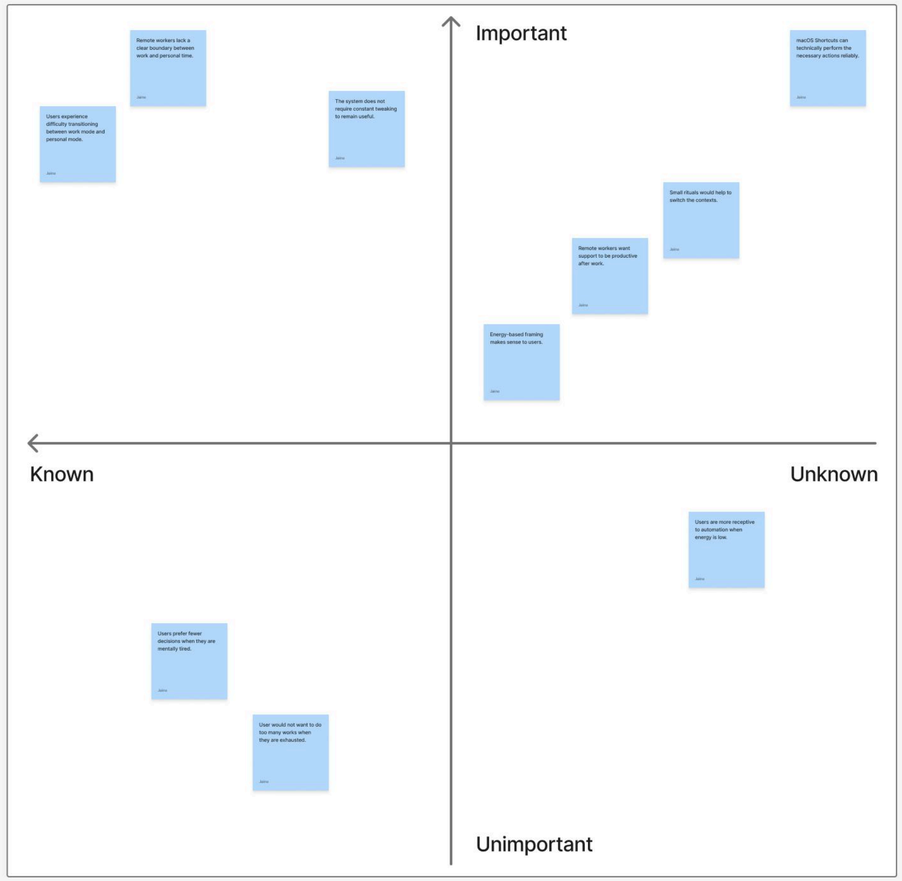

| | in-class method | take-home method |
|---|---|---|
| wk01 | - | Research Planning |
| wk02 | Diary Study | Card Sorting |
| wk03 | Scenario Walkthrough | Low-Fi Prototype |
| wk04 | A/B Testing or Concept Testing | Mid-Fi Prototype |
| wk05 | Usability Testing | - |



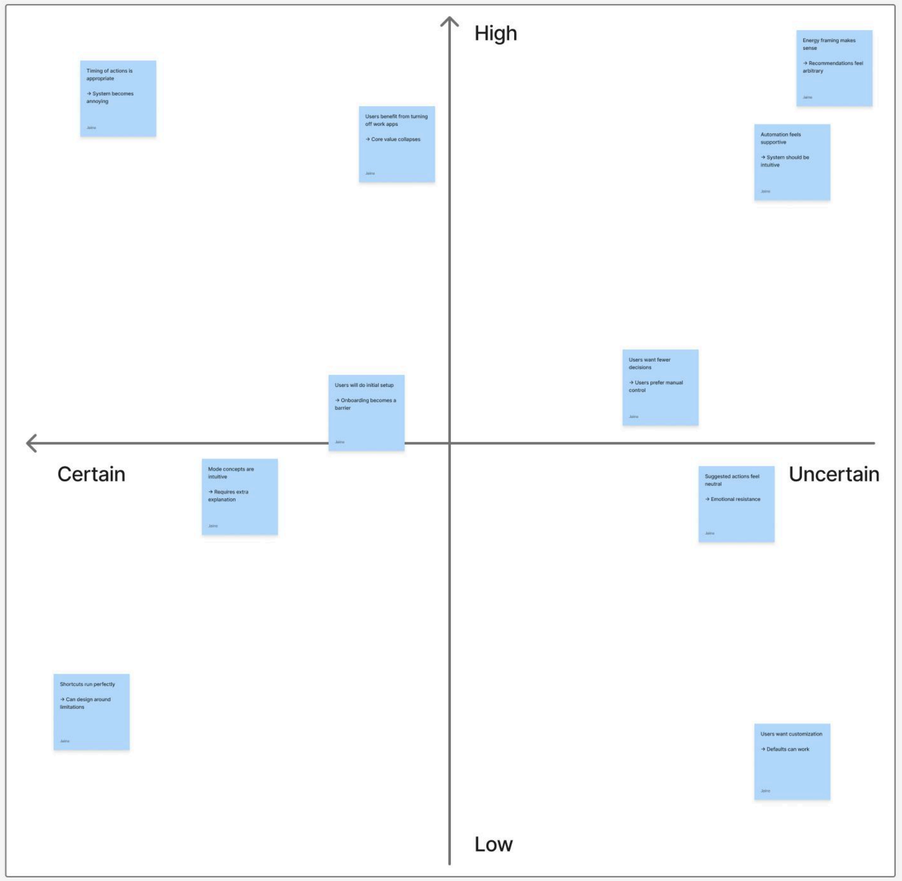

# **Wk(02) In-class Method** Assumption / Risk Mapping

Link 🔗

## Assumption Mapping

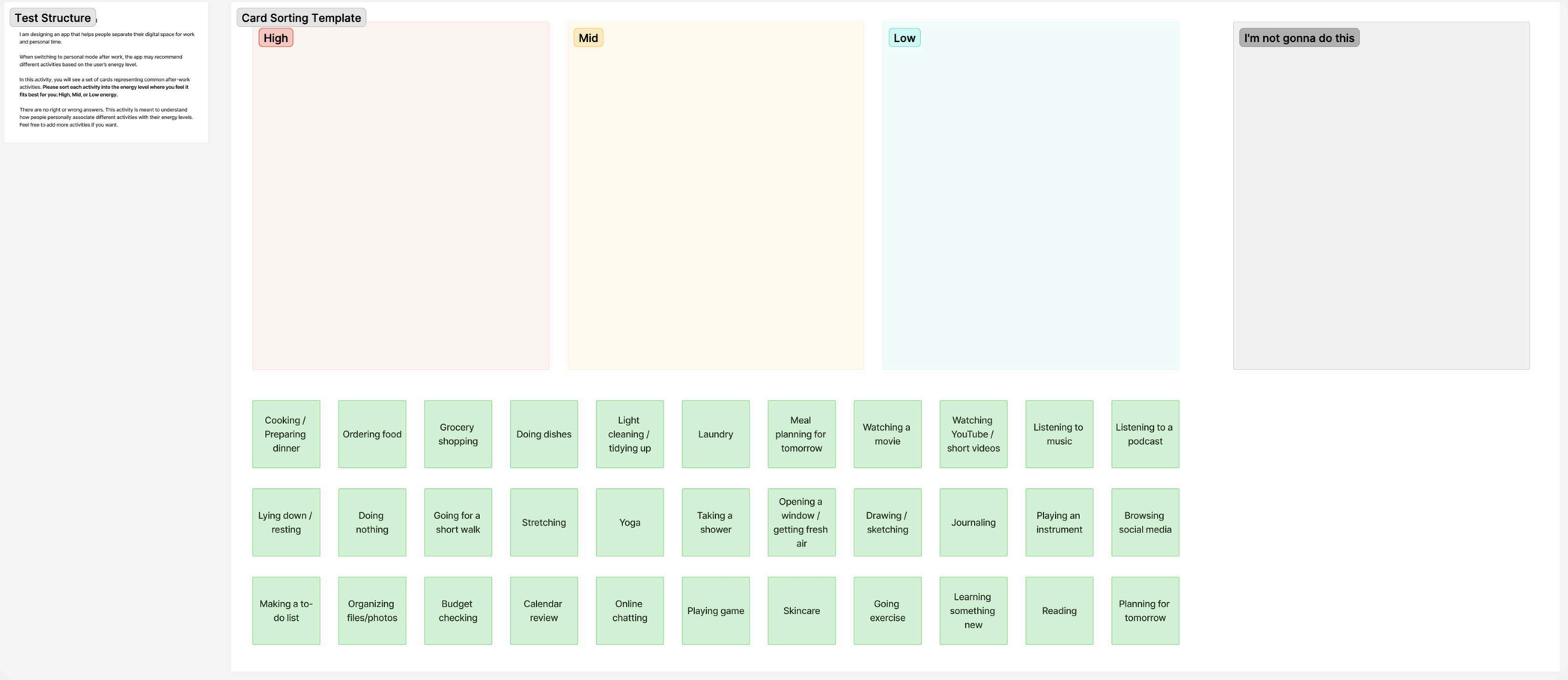



## Risk Mapping



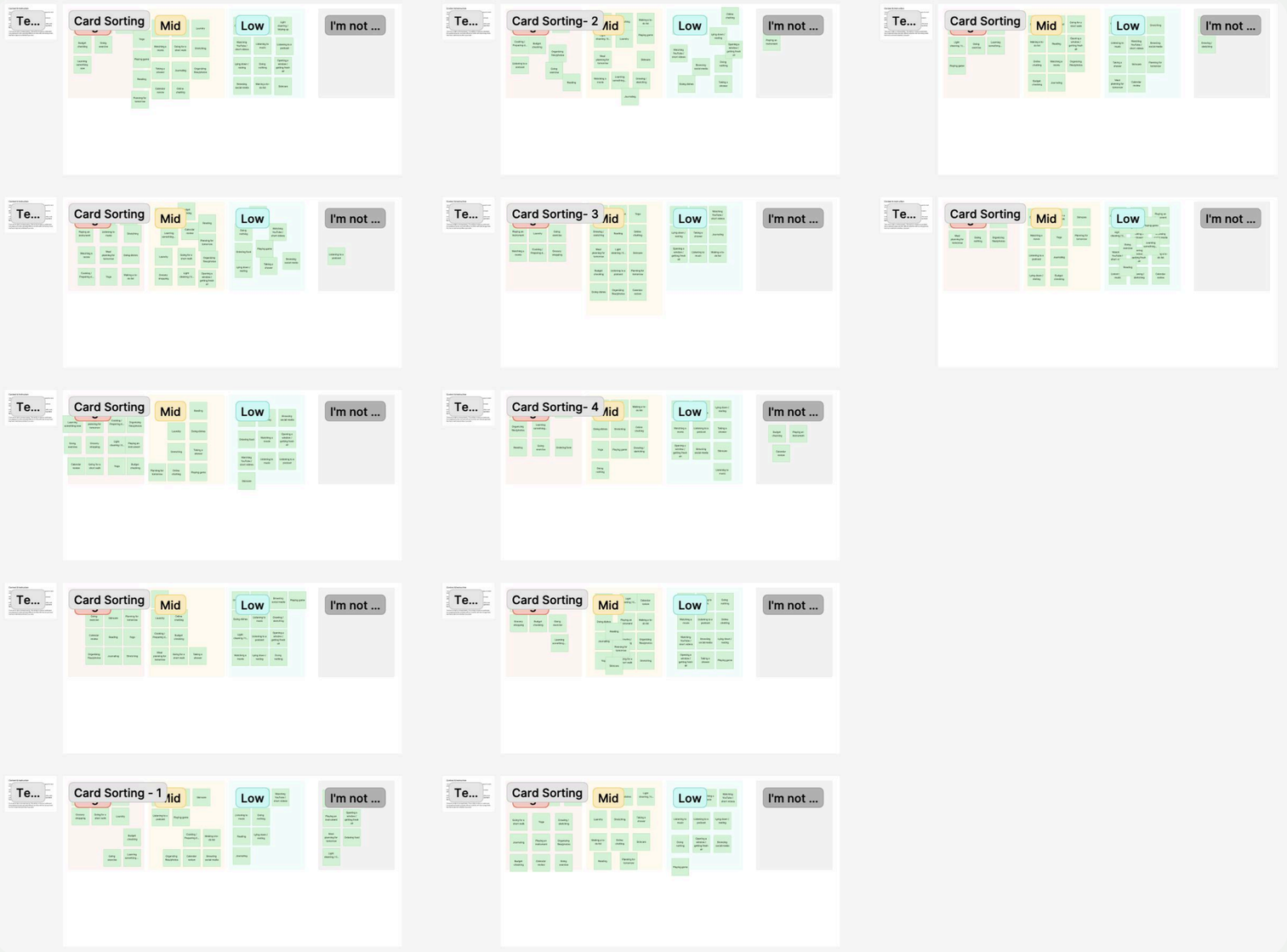
# **Wk(02) Take-home Method** Card Sorting

Link 🔗



# **Wk(02) Take-home Method** Card Sorting

Link 🔗



# **Wk(03) In-class Method** Low-Fi Prototype

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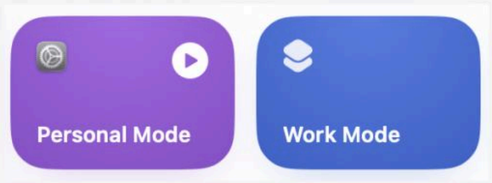
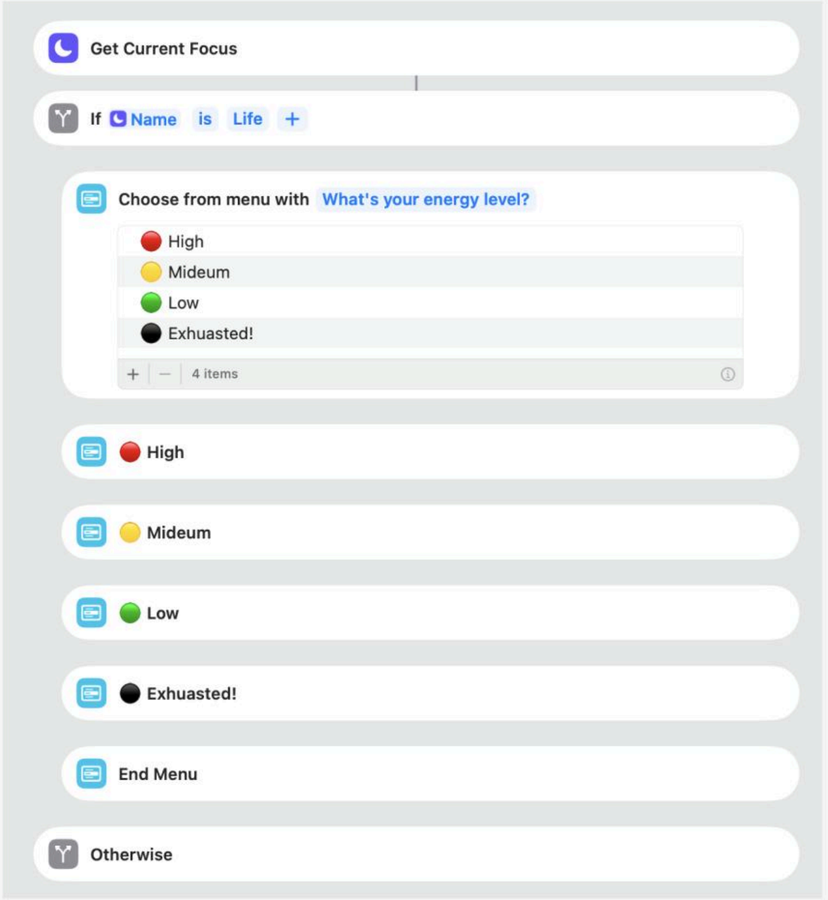
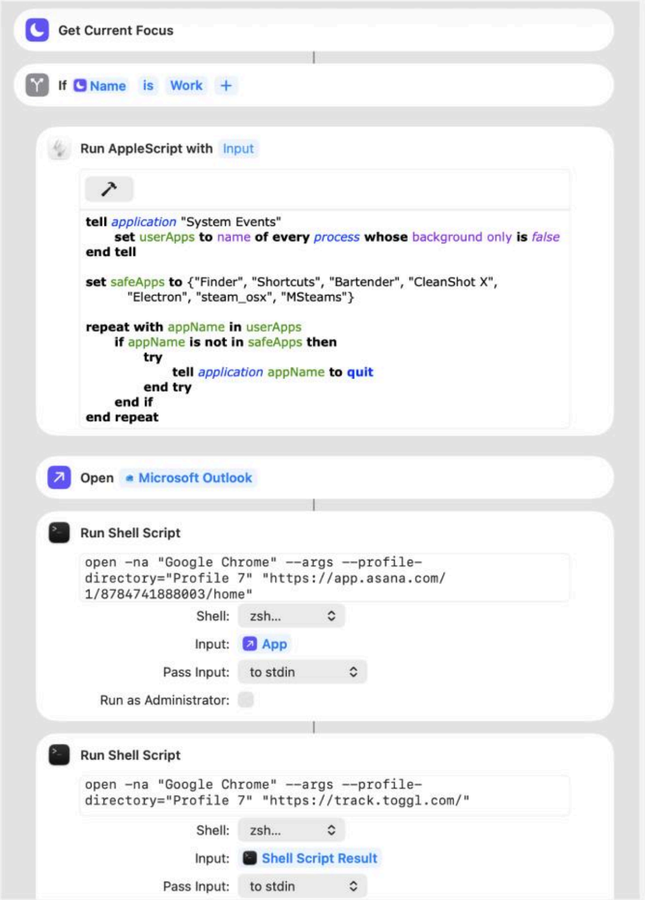


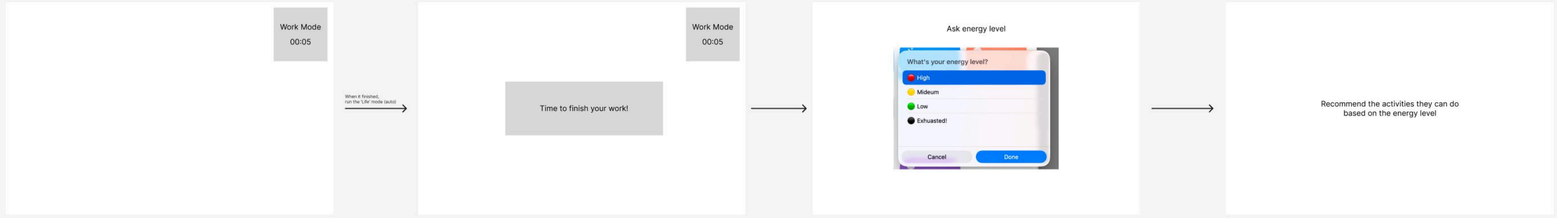



# **Wk(03) Take-home Method** Scenario Walkthrough

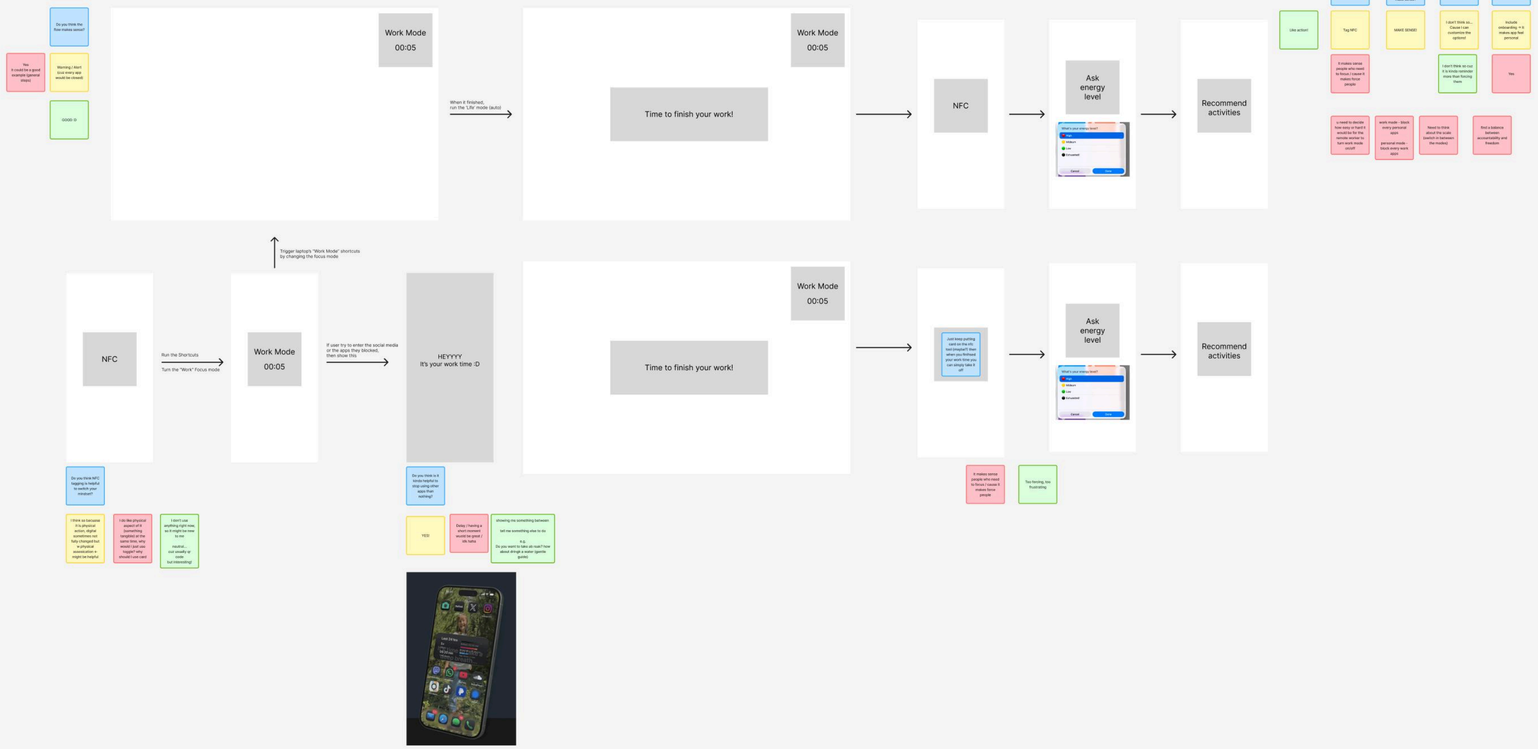
Link 🔗

Scenario Walkthrough / Week 03 Take-home

## Version 1

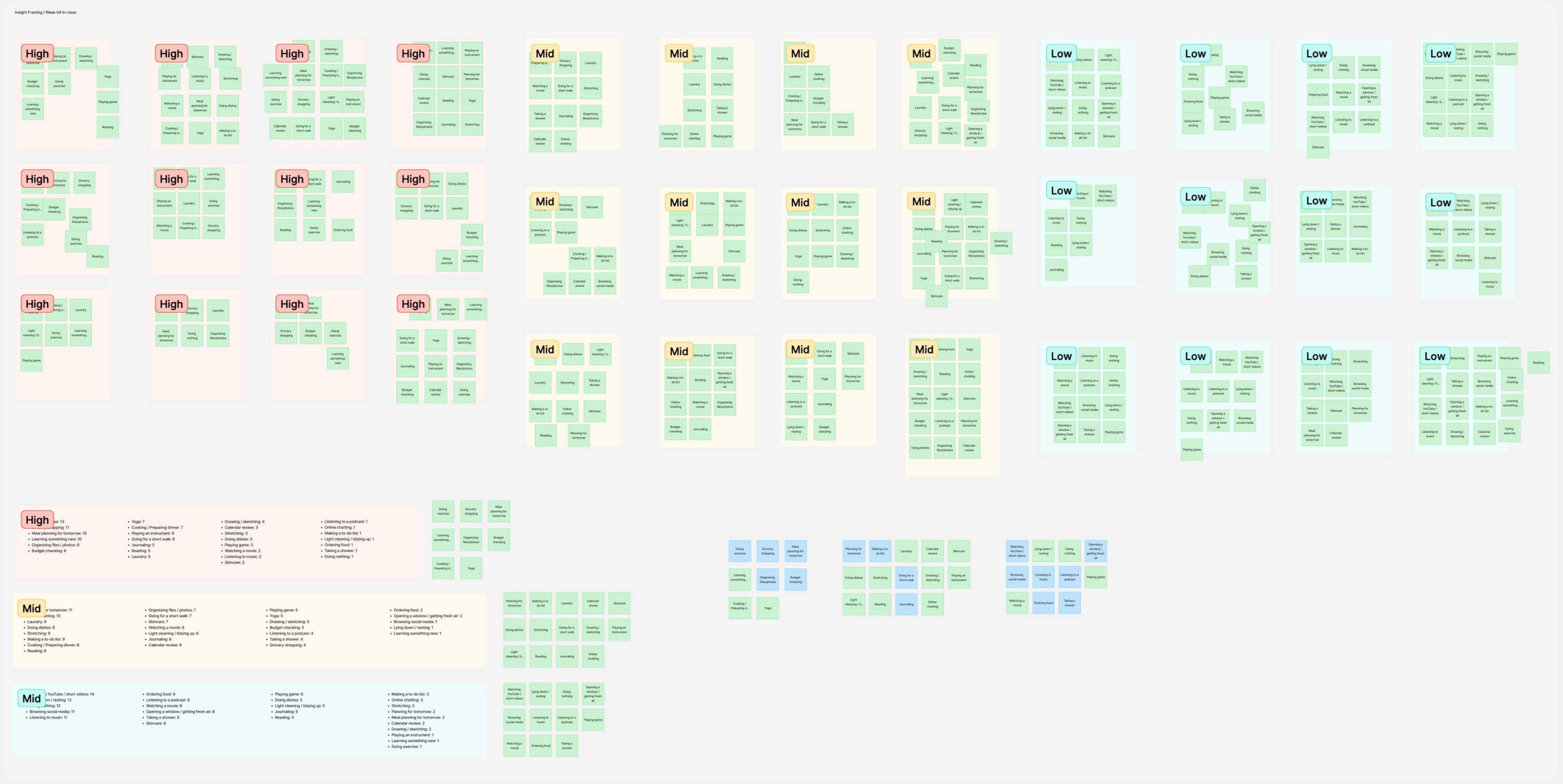



## Version 2



# **Wk(04) In-class Method** Synthesis / Insight Framing

Link 🔗

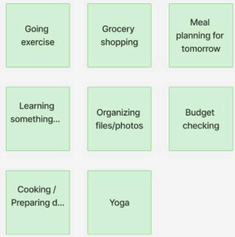


# **Wk(04) In-class Method** Synthesis / Insight Framing

Link 🔗

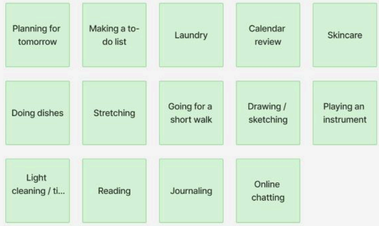
**High**

- Going exercise: 13
- Grocery shopping: 11
- Meal planning for tomorrow: 10
- Learning something new: 10
- Organizing files / photos: 9
- Budget checking: 8
- Yoga: 7
- Cooking / Preparing dinner: 7
- Playing an instrument: 6
- Going for a short walk: 6
- Journaling: 5
- Reading: 5
- Laundry: 5
- Drawing / sketching: 4
- Calendar review: 3
- Stretching: 3
- Doing dishes: 3
- Playing game: 3
- Watching a movie: 2
- Listening to music: 2
- Skincare: 2
- Listening to a podcast: 1
- Online chatting: 1
- Making a to-do list: 1
- Light cleaning / tidying up: 1
- Ordering food: 1
- Taking a shower: 1
- Doing nothing: 1




**Mid**

- Planning for tomorrow: 11
- Online chatting: 10
- Laundry: 9
- Doing dishes: 9
- Stretching: 9
- Making a to-do list: 9
- Cooking / Preparing dinner: 8
- Reading: 8
- Organizing files / photos: 7
- Going for a short walk: 7
- Skincare: 7
- Watching a movie: 6
- Light cleaning / tidying up: 6
- Journaling: 6
- Calendar review: 6
- Playing game: 5
- Yoga: 5
- Drawing / sketching: 5
- Budget checking: 5
- Listening to a podcast: 4
- Taking a shower: 4
- Grocery shopping: 4
- Ordering food: 2
- Opening a window / getting fresh air: 2
- Browsing social media: 1
- Lying down / resting: 1
- Learning something new: 1

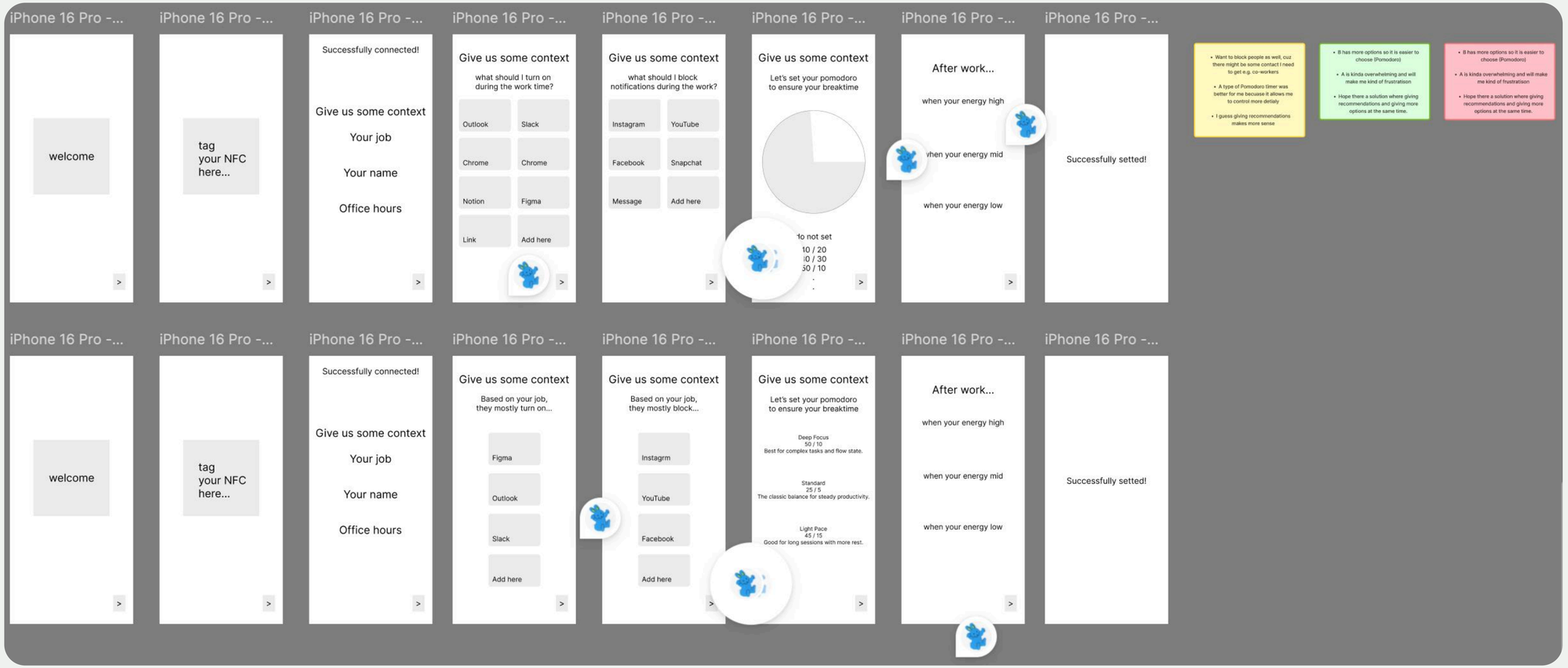



**Mid**

- Watching YouTube / short videos: 14
- Lying down / resting: 13
- Doing nothing: 12
- Browsing social media: 11
- Listening to music: 11
- Ordering food: 9
- Listening to a podcast: 8
- Watching a movie: 8
- Opening a window / getting fresh air: 8
- Taking a shower: 8
- Skincare: 6
- Playing game: 6
- Doing dishes: 5
- Light cleaning / tidying up: 5
- Journaling: 5
- Reading: 4
- Making a to-do list: 3
- Online chatting: 3
- Stretching: 3
- Planning for tomorrow: 2
- Meal planning for tomorrow: 2
- Calendar review: 2
- Drawing / sketching: 2
- Playing an instrument: 1
- Learning something new: 1
- Going exercise: 1

# **Wk(04) Take-home Method** Concept Testing

Link 🔗



# **Wk(05) In-class Method** Prepare for Mid-Fi

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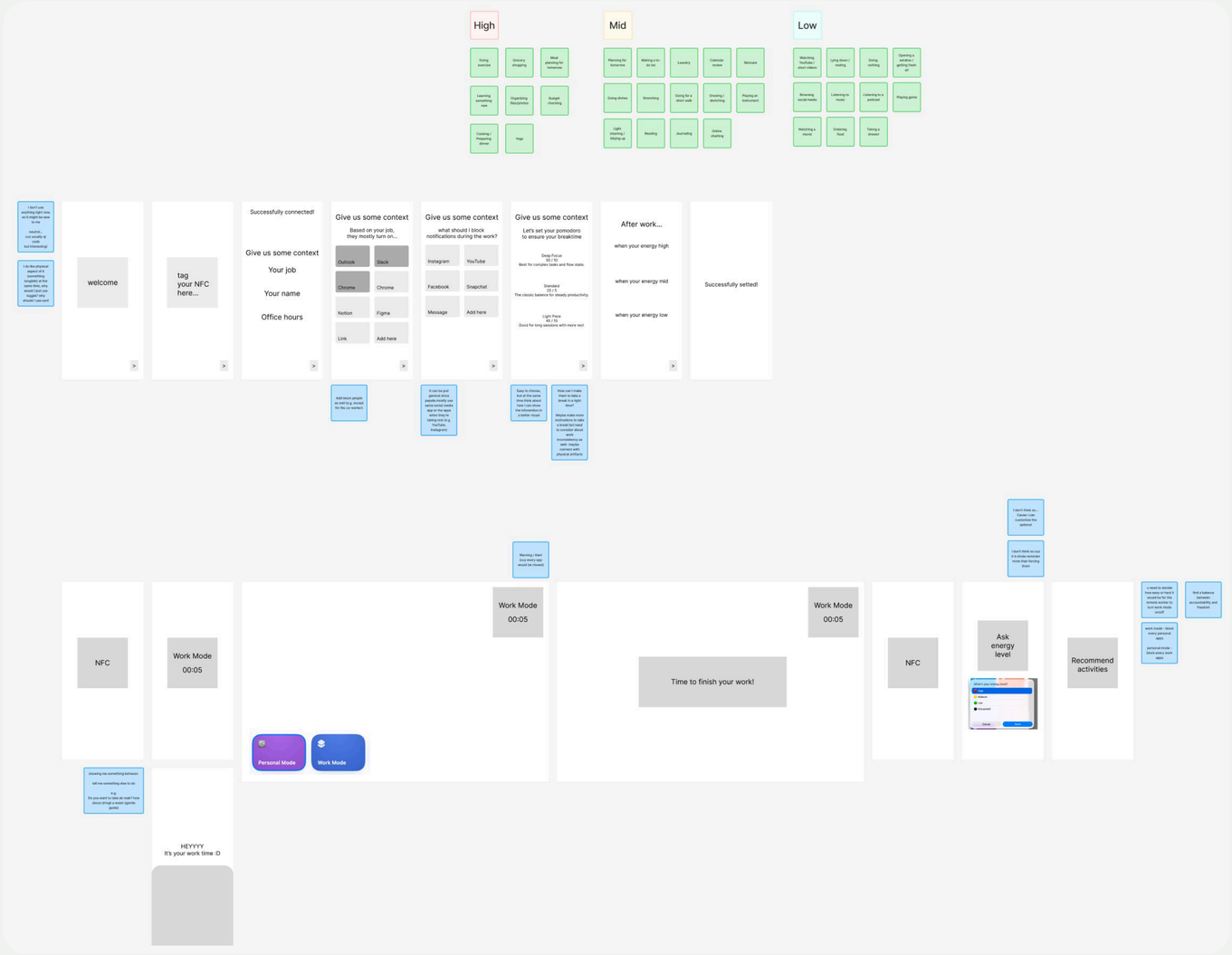
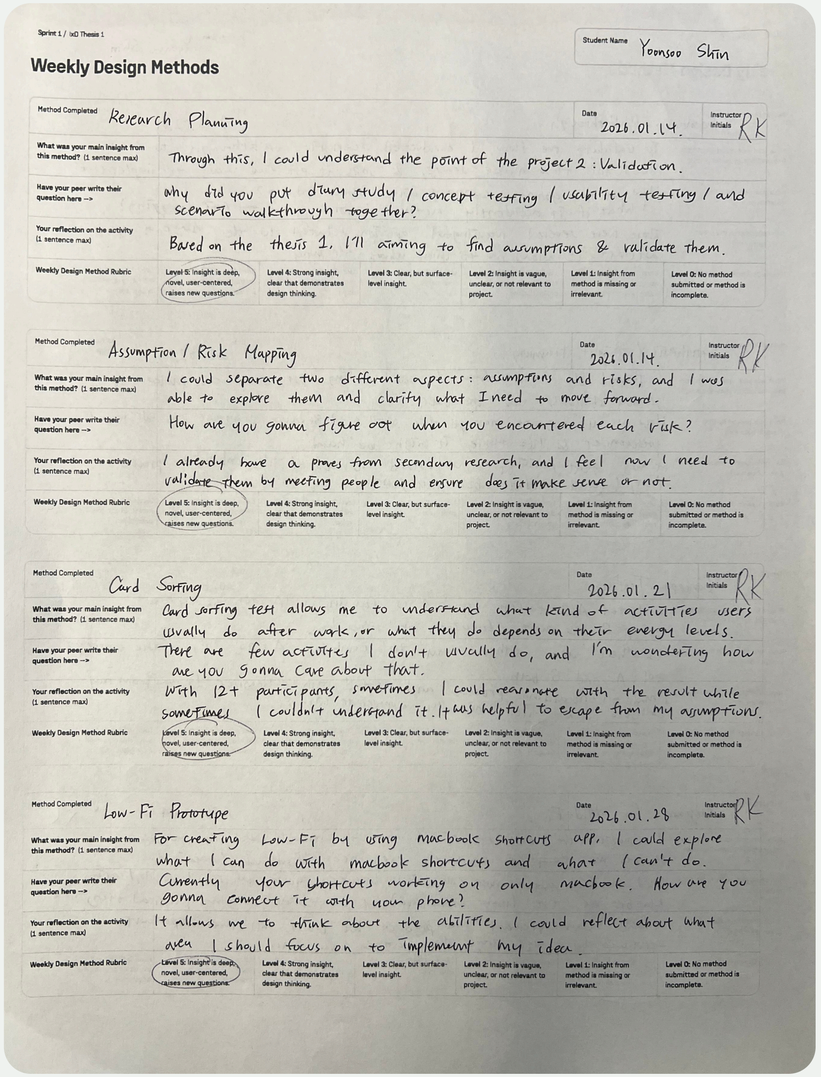


# Weekly Design Methods



Sprint 1 / IxD Thesis 1

Student Name: Yoonsoo Shin

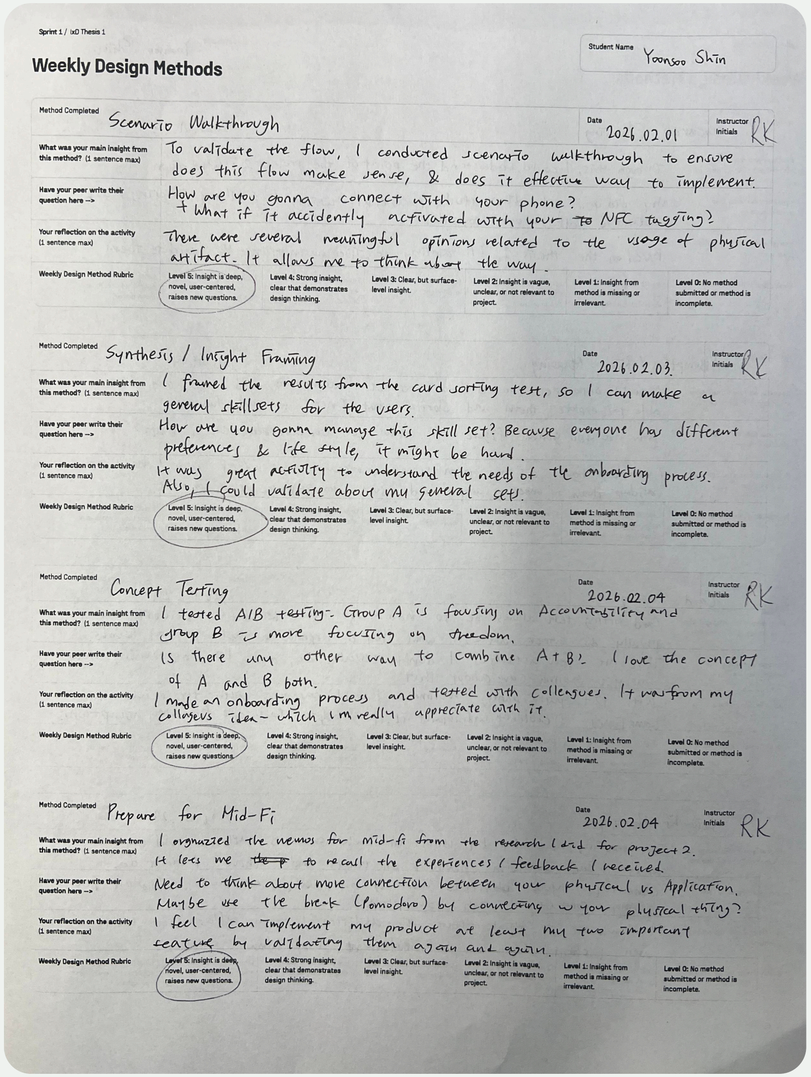
## Weekly Design Methods

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Completed | Research Planning | | | | Date: 2026.01.14. | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | Through this, I could understand the point of the project 2 : Validation. | | | | | |
| Have your peer write their question here --> | Why did you put diary study / concept testing / usability testing / and scenario walkthrough together? | | | | | |
| Your reflection on the activity (1 sentence max) | Based on the thesis 1, I'll aiming to find assumptions & validate them. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Completed | Assumption / Risk Mapping | | | | Date: 2026.01.14. | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | I could separate two different aspects : assumptions and risks, and I was able to explore them and clarify what I need to move forward. | | | | | |
| Have your peer write their question here --> | How are you gonna figure out when you encountered each risk? | | | | | |
| Your reflection on the activity (1 sentence max) | I already have a priors from secondary research, and I feel now I need to validate them by meeting people and ensure does it make sense or not. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Completed | Card Sorting | | | | Date: 2026.01.21 | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | Card sorting test allows me to understand what kind of activities users usually do after work, or what they do depends on their energy levels. | | | | | |
| Have your peer write their question here --> | There are few activities I don't usually do, and I'm wondering how are you gonna care about that. | | | | | |
| Your reflection on the activity (1 sentence max) | With 12+ participants, sometimes I could resonate with the result while sometimes I couldn't understand it. It was helpful to escape from my assumptions. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Completed | Low-Fi Prototype | | | | Date: 2026.01.28 | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | For creating Low-Fi by using macbook shortcuts app, I could explore what I can do with macbook shortcuts and what I can't do. | | | | | |
| Have your peer write their question here --> | Currently your shortcuts working on only macbook. How are you gonna connect it with your phone? | | | | | |
| Your reflection on the activity (1 sentence max) | It allows me to think about the abilities. I could reflect about what area I should focus on to implement my idea. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |



Sprint 1 / IxD Thesis 1

Student Name: Yoonsoo Shin

## Weekly Design Methods

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|---|---|---|---|---|---|---|
| Method Completed | Scenario Walkthrough | | | | Date: 2026.02.01 | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | To validate the flow, I conducted scenario walkthrough to ensure does this flow make sense, & does it effective way to implement. | | | | | |
| Have your peer write their question here --> | How are you gonna connect with your phone? + What if it accidently activated with your ~~to~~ NFC tagging? | | | | | |
| Your reflection on the activity (1 sentence max) | There were several meaningful opinions related to the usage of physical artifact. It allows me to think ~~about~~ the way. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Completed | Synthesis / Insight Framing | | | | Date: 2026.02.03. | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | I framed the results from the card sorting test, so I can make a general skillsets for the users. | | | | | |
| Have your peer write their question here --> | How are you gonna manage this skill set? Because everyone has different preferences & life style, it might be hard. | | | | | |
| Your reflection on the activity (1 sentence max) | It was great activity to understand the needs of the onboarding process. Also, I could validate about my general set. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |

| | | | | | | |
|---|---|---|---|---|---|---|
| Method Completed | Concept Testing | | | | Date: 2026.02.04 | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | I tested A/B testing. Group A is focusing on Accountability and group B is more focusing on freedom. | | | | | |
| Have your peer write their question here --> | Is there any other way to combine A+B? I love the concept of A and B both. | | | | | |
| Your reflection on the activity (1 sentence max) | I made an onboarding process and tested with collegues. It was from my collegues idea - which I'm really appreciate with it. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |

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|---|---|---|---|---|---|---|
| Method Completed | Prepare for Mid-Fi | | | | Date: 2026.02.04 | Instructor Initials: RK |
| What was your main insight from this method? (1 sentence max) | I organized the memos for mid-fi from the research I did for project 2. It lets me ~~the~~ to recall the experiences / feedback I received. | | | | | |
| Have your peer write their question here --> | Need to think about more connection between your physical vs Application. Maybe use the break (Pomodoro) by connecting w your physical thing? | | | | | |
| Your reflection on the activity (1 sentence max) | I feel I can implement my product at least my two important feature by validating them again and again. | | | | | |
| Weekly Design Method Rubric | Level 5: Insight is deep, novel, user-centered, raises new questions. | Level 4: Strong insight, clear that demonstrates design thinking. | Level 3: Clear, but surface-level insight. | Level 2: Insight is vague, unclear, or not relevant to project. | Level 1: Insight from method is missing or irrelevant. | Level 0: No method submitted or method is incomplete. |

## Citations

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Unsplash. Unsplash, https://unsplash.com/. Accessed 4 Feb. 2026.

## Use of AI

AI has been used for:

- Received support in defining stakeholders, risk management, and technology requirements
- General proofreading of my written work throughout the report