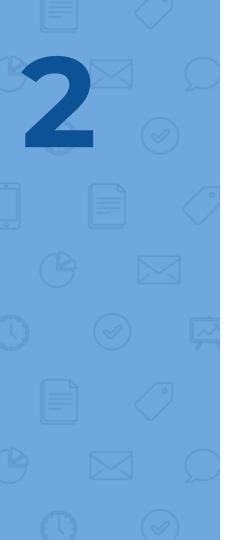# STUDY BUDDY

DRP 10 Ryan, George, Steven, Leonard

2

Meet Alex

3

Procrastination

Time crunch

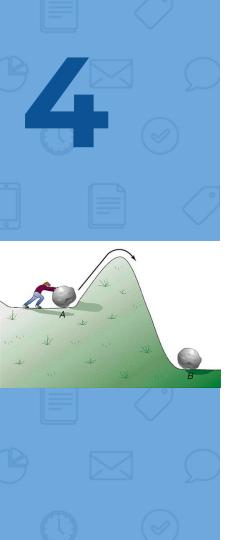Stress

"It's a vicious cycle. I'm behind because of the stress from falling behind last coursework"

Activation Energy & Momentum II

"Activation energy" - the effort required to start a task.

Once you've started, it takes far less effort to keep going, and the momentum can keep you going. Once you start making progress on a project, you actually want to work on it, which decreases the "activation energy".
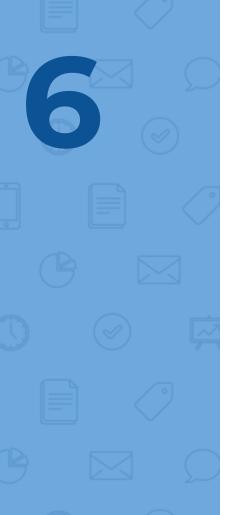
One of the core reasons for procrastination is avoiding paying this "energy".

Activation Energy & Momentum II

The reason procrastinators often start working so close to deadlines is because the activation energy of working becomes lower, but only indirectly.

As the deadline looms, the activation energy of doing anything else becomes drastically higher until working is the only viable option.

5

The Scale of the Issue

6

Estimates indicate that 80% to 95% of college students engage in procrastination, and almost 50% procrastinate consistently and problematically.

Procrastination has been shown to correlate with higher levels of depression, anxiety, and stress.

Our Stakeholders

7

- Students have high levels of procrastination
- "Delayed consequences"
- Unstructured time
- Large groups with similar work
- Small workload can be easily tracked in an app

8

"As a student with a lot of unstructured time, I want to have tangible external pressure on tasks rather than abstract deadlines so that I can be motivated to get it done"

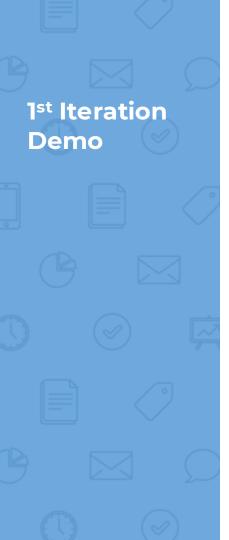*"It's always difficult to get started, but once I have, It's not that hard to keep going"*

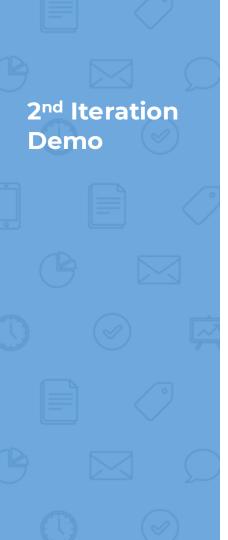*"I feel a positive pressure to contribute when I'm working in a group"*

*"How might we help students build **meaningful structure** and **motivation** in their daily lives, so that they can **get started** and **maintain their momentum**"*
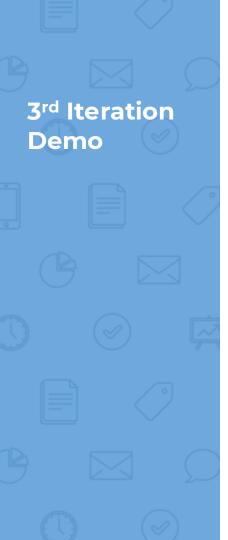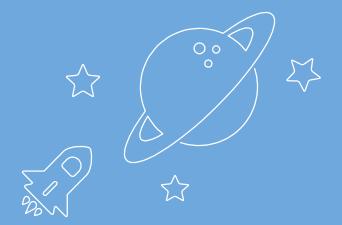
Live Demo

Task List

Buddy System

Active Accountability

What does our app do?

Tech Stack

Front-end

React

Reusable UI components

Efficient state management

Virtual DOM

Tailwind CSS

Utility-first approach

Fast prototyping with minimal CSS

TypeScript

Add static typing to JavaScript

Catch errors

Improves maintainability

Progressive Web App

Native app-like experience

Back-end Firebase

Scalability

Easy to integrate

Firebase Authentication

Google Sign-In

No username and password

Cloud Firestore

Real-time, NoSQL cloud database

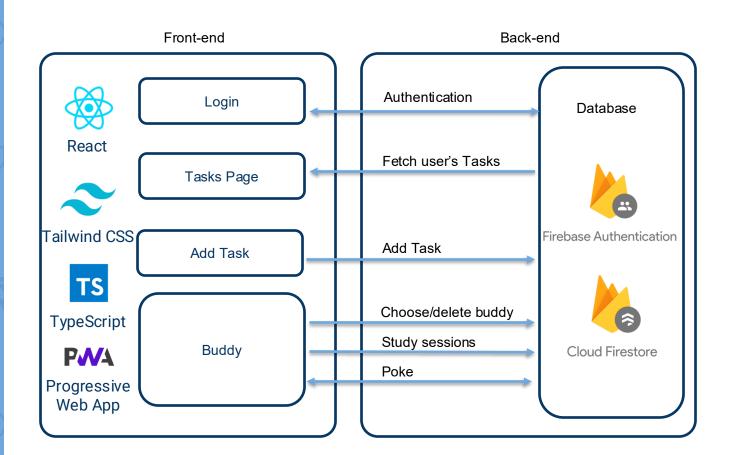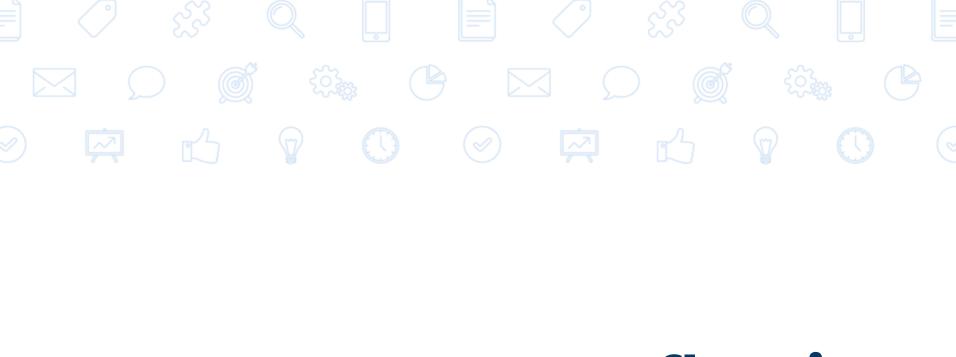Easy to sync across user and devices

Deployment

Free student credits

Well documented

CICD supports

Webpack

Optimize frontend assets

Fast load times

Hot module replacement

System Architecture Diagram

Reflection

over this 4-week project

What went well?

✓ Using Trello, we kept development organised by working on multiple small, focused tasks in parallel

✓ Keep the MVP simple but focused

✓ Maintained a clear UI, reduced friction

What would we do differently?

?   Use more open-ended questions early on, instead of MCQs

✓   Validate assumptions early

⧗   Start trial earlier, pattern takes time to reveal

Direct Impact

We reduce procrastination by encouraging **accountability** and **shared responsibility**

I am more aware of the tasks I am adding since only my buddy can tick it off.
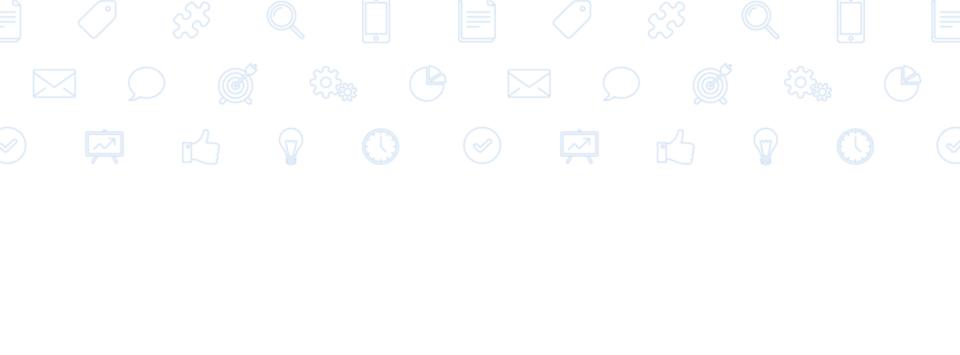
Promote mindful task management

"Getting started" and "momentum"

Wider Impacts on institutions

- ▶ Embed Study Buddy into individual courses / academic cohorts
- ▶ Scale peer support efficiently across modules
- ▶ Encourage collaboration throughout the term, instead of last minute cramming during deadlines
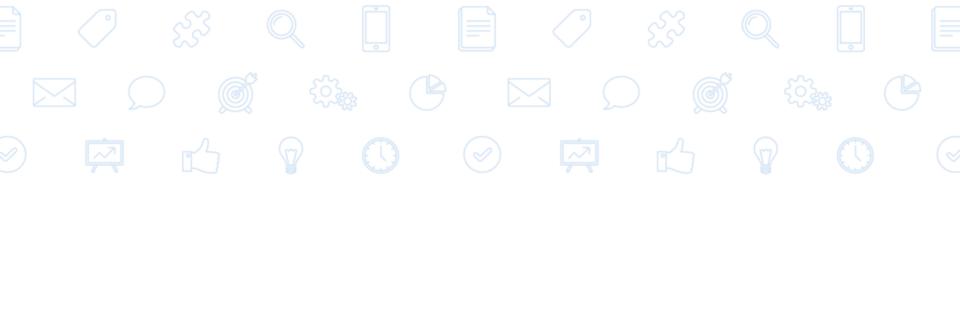
THE FUTURE

Proving system, building a wider supportive community

"How do I verify my buddy did their task if I don't understand their subject?"

Building a wider supportive community

▶ Procrastination is a shared struggle

▶ From 1-1 pairings, to small groups, to local communities

▶ Creating a safe space for growth and support

Thank you!

DRP10

Motivational theory:
- Behavioural Science:
    - The Zeigarnik Effect (Once you start, your brain wants to finish)
    - Activation Energy (Peer pressure and immediate consequences lowers activation energy)

Estimates indicate that 80% to 95% of college students engage in procrastination, … ,and almost 50% procrastinate consistently and problematically (Steel, 2007). Cited from [The Nature of Procrastination: A Meta-Analytic and Theoretical Review of Quintessential Self Regulatory Failure].

Procrastination has been shown to correlate with higher levels of depression, anxiety, and stress (Johansson et al, 2023).
[**Associations Between Procrastination and Subsequent Health Outcomes Among University Students in Sweden**]