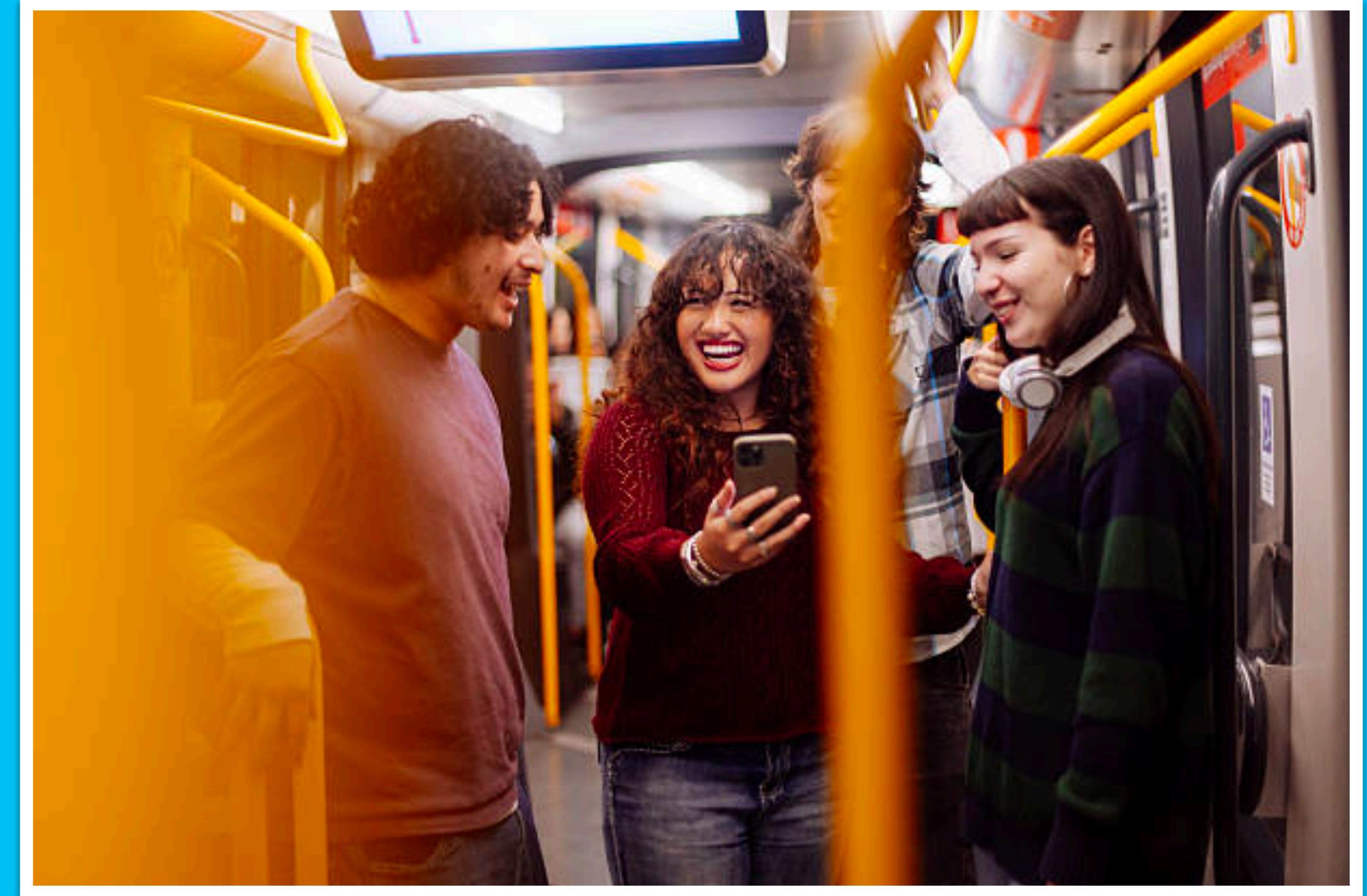


# CALMUTE

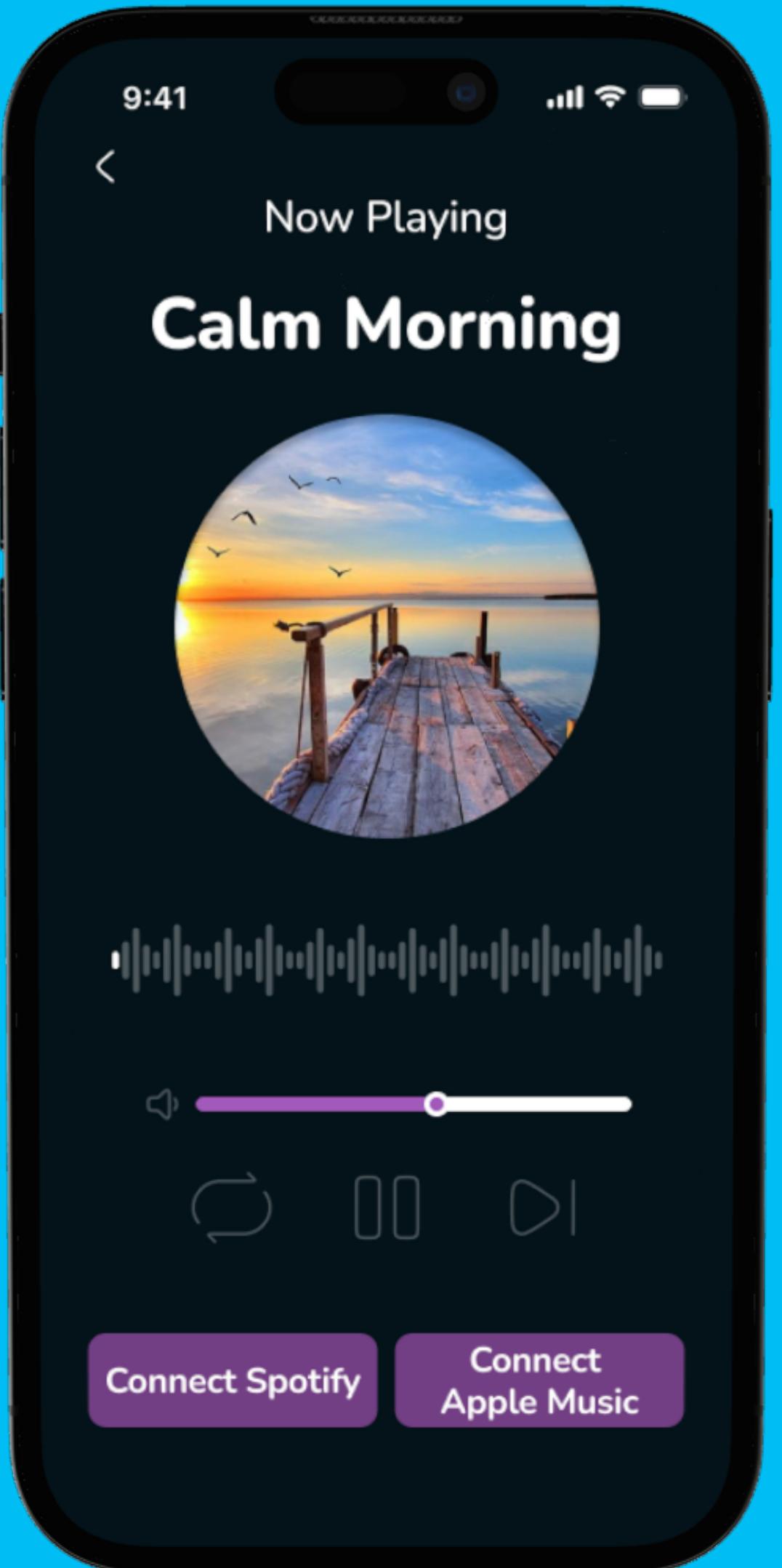
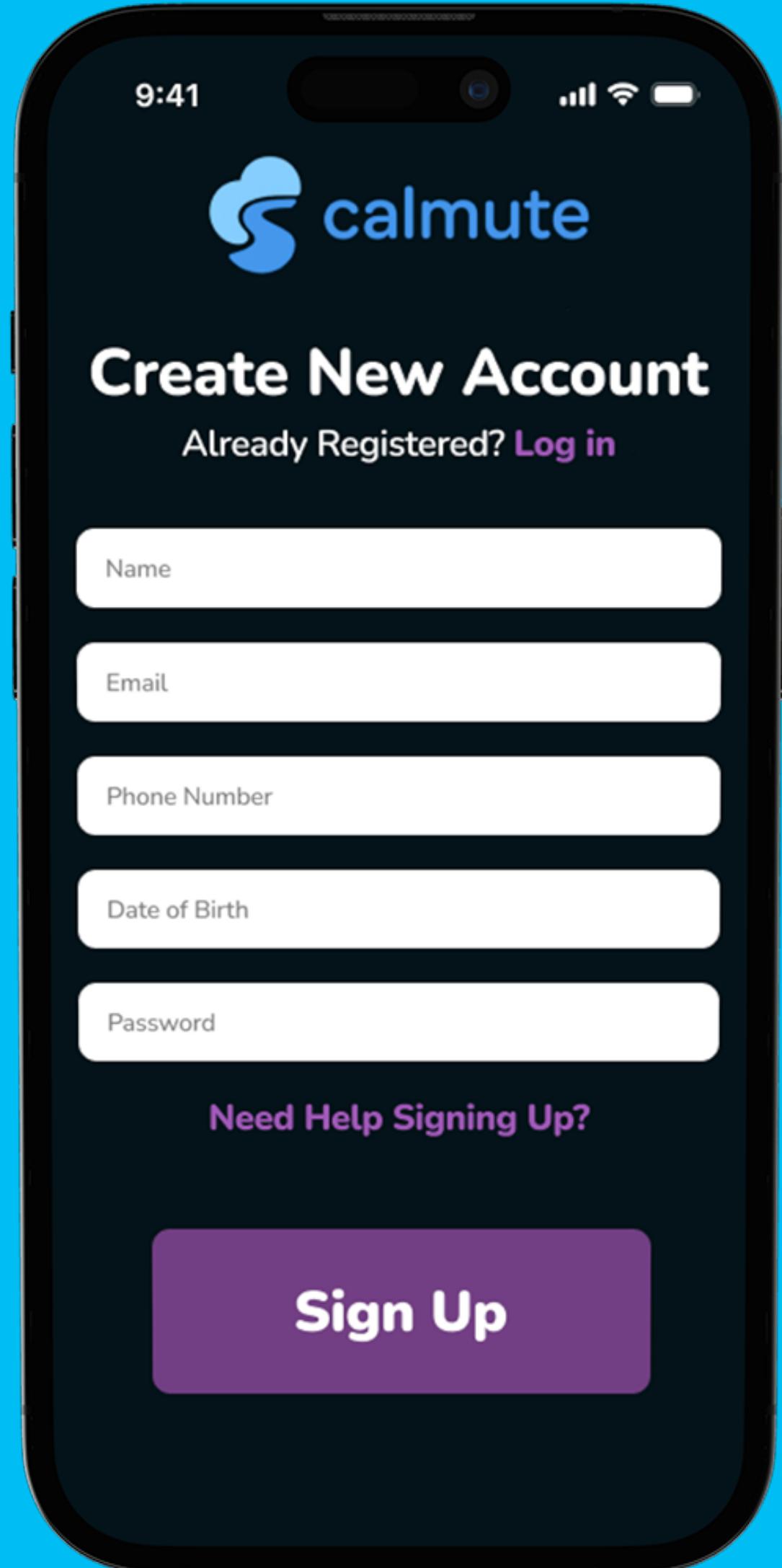


Project for UTS Advanced Interaction Design Group Assignment  
Presented by Robert Xu

August 2025 - November 2025

# PROJECT SUMMARY

Calmute is a mindfulness app designed to support students during stressful commutes by offering quick mood tracking, calming soundscapes, and guided breathing exercises. Created for real-world transit use, the app enables users to reset mentally in just a few taps, helping them arrive at class feeling calmer and more focused.



# ROLE AND RESPONSIBILITIES

**ROLE: PRODUCT DESIGNER**

**COMPANY: CALMUTE**

**WEBSITE: APPSTORE**

**YEAR: 2025**



# GOALS

1. Identity the main source of stress and discomfort during commutes, and it affects their mood and mental readiness
2. Explore how different students cope with stress during their commutes, eg gaming, music, social media
3. Validate the core design premise of Calmute: “Find Stillness In Every Journey”



# EMPATHISE WITH THE USER

INTERVIEWS, JOURNEY MAP, PERSONAS

# INTERVIEWS

## INTERVIEW FOCUS

- What stresses you at most during a commute?
- How do you cope with boredom or stress during travels?
- What apps do you normally use during your commute?



## INTERVIEW RESULTS

“Commuting is a necessary evil. I’m grateful it exists, but it’s overcrowded, unreliable, a little grimy.” — Clara

“I usually play games on my phone. It helps pass the time.” — Kevin

“Delays are the most stressful part. It’s frustrating when you can’t control being late.” — Vi

# USER PERSONAS



## TERRENCE SMITH

**Age:** 20 Years Old  
**Location:** Sydney, Australia  
**Occupation:** Retail Assistant  
**Education:** 1st Year Business Student

"Commuting during peak hours feels like a race against the clock. By the time I get to work or class, I'm already drained, and delays just add more stress to my day."

### BIOGRAPHY

Terrence is a dedicated second-year business student who balances his studies with part-time work in retail. He lives with his family in the suburbs, which means long commutes into the city for both university and work. His weekdays are tightly packed with lectures, work shifts, and commuting on crowded trains. While he values independence and the money he earns, the constant pressure of rushing between commitments often leaves him fatigued. Despite this, he enjoys spending time with friends on weekends and uses his commute as a chance to listen to music or catch up on podcasts.

Terrence's biggest challenges are time pressure, unpredictable delays, and the stress of peak-hour travel. He wants more reliable transport and tools to make commuting less exhausting.

### PERSONALITY & SKILLS



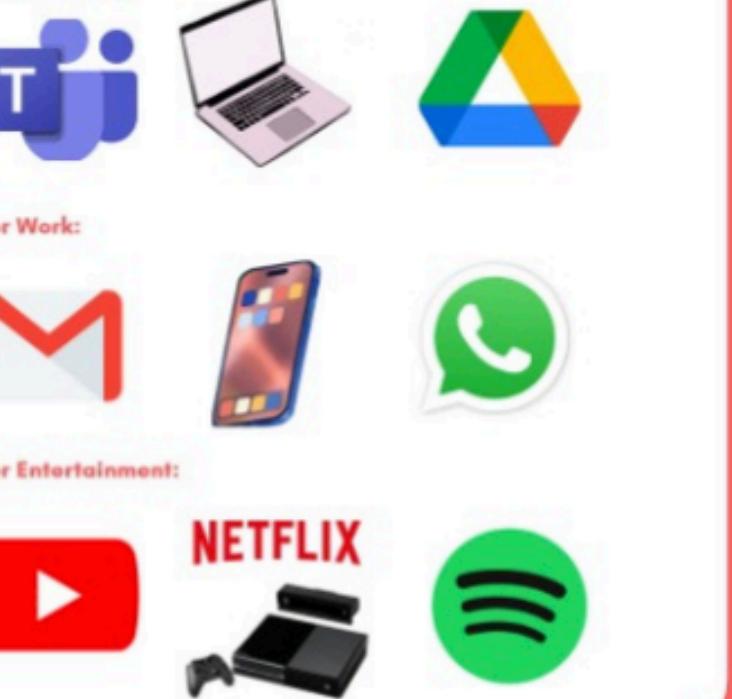
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Creativity	<div style="width: 70%; background-color: #007bff;"></div>
Social Energy	<div style="width: 50%; background-color: #ffc107;"></div>
Personal Motivation	<div style="width: 90%; background-color: #28a745;"></div>

### FRUSTRATIONS



- Always rushing between uni and work due to tight schedules.
- Feeling exhausted before reaching work/class because of packed peak-hour trains.
- Stress from delays and cancellations leading to lateness.
- Limited personal time due to long commutes eating into the day.
- Safety concerns when commuting late at night after work shifts.

### FREQUENTLY USED TECHNOLOGY



- For University:  
Microsoft Office 365, Laptop, Google Drive
- For Work:  
Gmail, iPhone, WhatsApp
- For Entertainment:  
Netflix, Spotify



## Pratham Chaudhury

Age: 22

Background: Indian-Australian

Location: Marrickville, NSW

Education: Bachelor of IT

Status: Domestic Student

Occupation: Part-Time IT Intern

### Goals & Motivations

- Arrive on time to work/class with low stress and low cost
- Keep predictable routines despite variable shifts and timetables
- Use commute productively or to decompress

### Technologies

- |              |            |
|--------------|------------|
| • Laptop     | • TripView |
| • Smartphone | • Opal     |
| • Headphones | • TikTok   |
|              | • Spotify  |

### Frustrations

- Crowding during peak hours
- Delays/cancellations
- Real-time info is unreliable
- Loud passengers
- Gets tired and frustrated standing with heavy bag during peak-hours

### Wants

- Trustworthy real-time data
- Cost awareness
- A sense that commuting time contributes to wellbeing or productivity
- Quick stress-relief techniques
- Simple UI

# USER STORY

Terrence rushes onto a crowded train after a delayed bus, already stressed before 8am. With no seat, no space to study, and a delay alert adding more pressure, he worries about being late for his 9am lecture and falling behind. His schedule is tight, class, quick lunch, then work, and even small disruptions drain his energy. He wishes his commute felt useful or calming instead of wasted, stressful time.



# USER JOURNEY MAP



## Terrence Smith

Terrence is a 21-year-old full-time student and part-time worker who relies heavily on public transport to get between university, work, and home. His commute often takes 2-3 hours per day and peak-hour congestion, delays, and tight schedules often leave him stressed and exhausted, while safety becomes a concern during late-night trips.

This User Journey highlights:

- The cumulative effect of commuting stress: how small disruptions can snowball into major anxieties
- The strong influence of external factors such as crowding, delays, safety and how it impacts mood and energy levels.
- The reliance on technology for navigation, communication and distraction
- The tension between wanting to use commuting time productively and struggling due to scheduling, fatigue or crowding.

User Goals and Expectations

- To arrive at university and work on time without unnecessary stress.
- To feel safe and comfortable while travelling, especially at night.
- To make commuting time feel less wasted instead to be more productive.
- To access reliable, real-time updates that help avoid delays or missed connections.

### Leaving Home and Getting to Station

- Rushes in the morning, often skipping breakfast to make the bus.
- Stressed about catching early/irregular services.
- Already feels low on energy before the day has properly begun.

### Morning Train to University

- Usually ends up standing in crowded carriages with little personal space.
- Attempts to study or review notes but struggles due to noise and discomfort.
- Relyes on music/podcasts to make trip bearable.

### Afternoon Travel to Work

- Feels time pressure to arrive on time for shift, stress peaks with delays and rush hour.
- Missed connections lead to frustration and anxiety.
- Constantly checks TripView/Google Maps for updates and alternative routes.

### Evening Return Home

- Physically and mentally drained after uni and work.
- Safety concerns increase in late-night commutes, especially on quiet or unpopulated platforms.
- Uses entertainment (music, social media) as a way to relax and switch off.

The user journey map consists of 12 numbered steps connected by a winding blue line. Step 1: "I'm already tired and behind schedule." Step 2: "I should try to study but it's too crowded and noisy." Step 3: "If I miss this connection, I'm going to be so late for work." Step 4: "Finally heading home, but this train feels so empty and unsafe."

**Tech use:** TripView/Google Maps to plan journey and check for live delays  
**Main Influencing Factor:** Reliability of transport directly affects mood and punctuality.  
**Design Opportunity:** Student-focused travel app with real-time crowding alerts and connection protection.

**Tech use:** Spotify/Podcasts for distraction and stress relief.  
**Main Influencing Factor:** Overcrowding reduces comfort and productivity.  
**Design Opportunity:** Built-in study-friendly modes like quieter carriage indicators or commute productivity tips.

**Tech use:** Messaging apps to update friends/work if running late.  
**Main Influencing Factor:** Having to catch multiple transport connections which can be unpredictable and varies in time.  
**Design Opportunity:** Discounted fares to reduce financial stress on working students.

**Tech use:** Uni learning platforms in the form of mobile applications  
**Main Influencing Factor:** Safety concerns in late hours lowers confidence in commuting alone.  
**Design Opportunity:** A night safety feature with safe-route mapping, light indicators and staff alerts.

# PROBLEM STATEMENT

Commuting students often feel **stressed, exhausted, and unproductive** during **peak-hour travel** because **delays, overcrowding, and lack of mental downtime** leave them feeling **drained** before their day even begins.

## HOW MIGHT WE?

How might we give students a greater sense of control over their commute, even when delays and crowding are unavoidable?

# **IDEATE**

**CONCEPT SUMMARY, PRESENTATION**

# CONCEPT SUMMARY

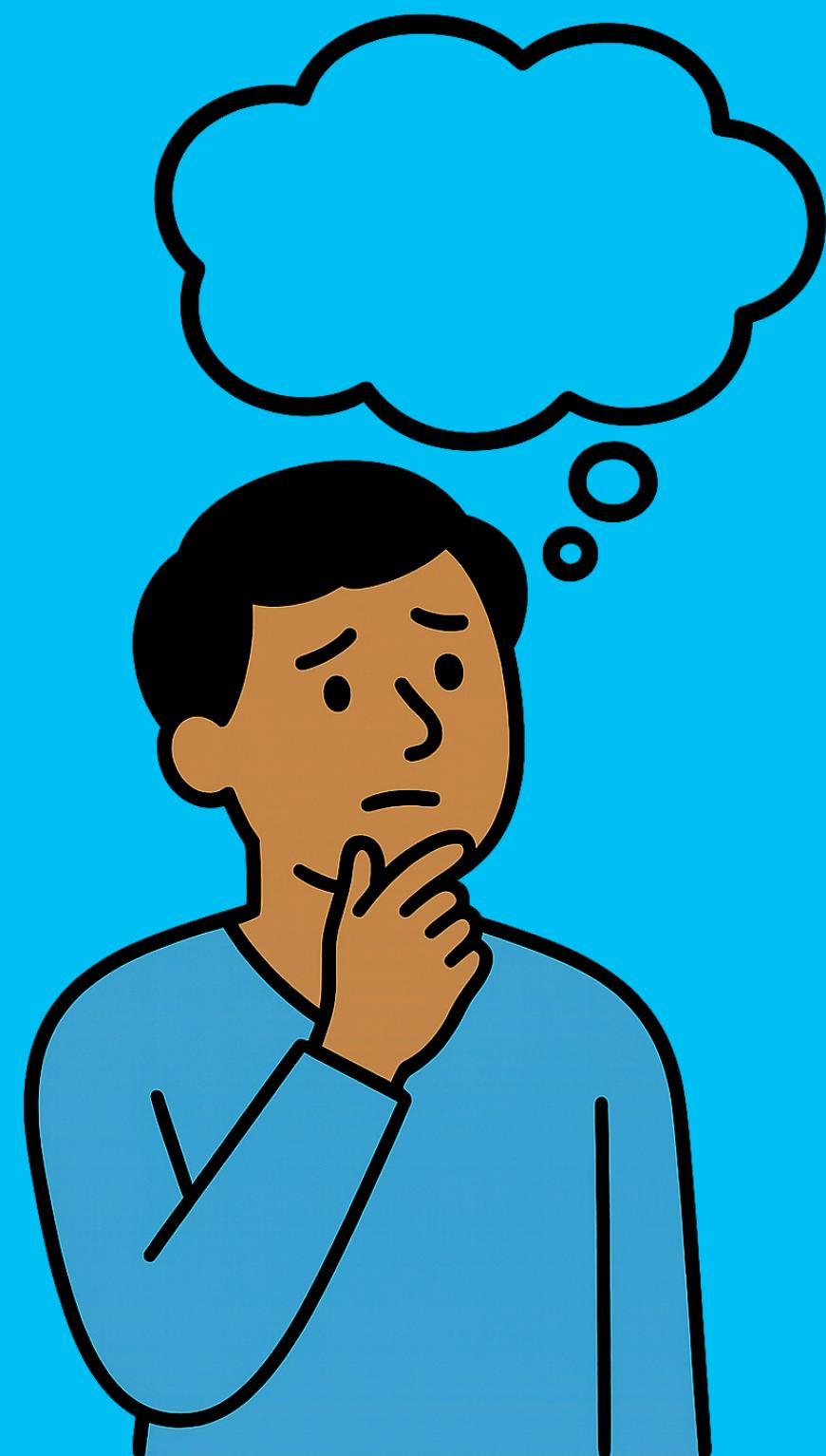
## OPTION 1:

### REALTIME REROUTE AND RELIABILITY COMPANION

Purpose: Reduce uncertainty and stress during travel by helping commuters make more confident transport decisions

Supports: Planning, waiting, boarding, rerouting

Keyfeatures: Live crowd heatmap, smart reroute alerts, backup plan reminders



## OPTION 2:

### STRESS FREE COMMUTING COMPANION

Purpose: Reduce emotional and mental stress during the commute by turning passive travel time into calm or productive time.

Supports: Standing, noise, crowded conditions, fatigue

Keyfeatures: Adaptive soundscape, commute timer with micro goals, mood tracking

# IDEATION PRESENTATION

## OnTime - Real-Time Reliability & Reroute Companion

**Design Brief: Supporting uni students commuting from Western Sydney to the city during peak hours.**

### Phase of Commuting Supported:

- Before & During travel

### Commute Problems Addressed:

- Uncertainty about delays, cancellations, and carriage crowding
- Trains/buses leaving earlier or arriving late
- Difficulty planning backups on time

### Supported Activities:

- Trip planning and backup routes
- Listening to podcasts/music without constant refresh
- Confidently choosing train/metro/bus

### Key Features:

- Live Crowd Heatmap
- Smart Reroute
- Unmissable Notifications
- Backup Reminders
- Late-Night Alerts

### Positive Experience Impact:

- Reduces uncertainty and stress
- Gives commuters more control over decisions
- Turns unpredictable commuting into predictable steps

### Why:

- Based on interview pain points: delays, cancellations, crowding, unreliable TripView
- Supports commuters before & during phases when unpredictability is highest
- Reduces stress, lateness, and uncertainty

### Why Is This a Good Idea:

- Feasible using existing transport data feeds
- Directly solves the top frustrations reported by users
- Makes commuting predictable and lowers stress

# Calmute - Stress-Free Commuting Companion

**Design Brief: Helping commuters cope with stress, fatigue, and noise during crowded journeys.**

## Phase of Commuting Supported:

- During travel

## Commute Problems Addressed:

- Standing fatigue in crowded conditions
- Noise, interruptions, and stress from long rides
- Commute time feeling “wasted”

## Supported Activities:

- Relaxation
- Light productivity
- Self-care

## Key Features:

- Adaptive Soundscapes
- Commute Timer with Micro-Goals
- Stress Relief Prompts
- Mood Tracking

## Positive Experience Impact:

- Transforms “dead time” into relaxation or productivity
- Reduces stress by providing coping mechanisms
- Improves wellbeing through small physical + mental care prompts

## Why:

- Addresses stress, fatigue, and wasted commute time reported in interviews.
- Provides relaxation or productivity, instead of frustration.
- Supports wellbeing and comfort during crowded travel.

## Why Is This a Good Idea:

- Builds on existing phone sensors + media apps (Spotify, podcasts).
- Adds a wellbeing focus missing from current Sydney commute apps.
- Focuses on mental health and user experience.

# **CREATING THE PROTOTYPE**

**LOW FIDELITY DESIGN, MID FIDELITY DESIGN, USER TESTING, FINAL PROTOTYPE**

# LOW FI DESIGN

## Screen Flow

Let's map out what users will see on their screens as they use our platform.

The diagram illustrates the user flow through a mobile application:

- Create New Account:** A form for entering Name (Jana Martina), Email (Hello@reallygreatsite.com), and Password, followed by a "Sign up" button.
- Home Page:** Displays a greeting "Hi Ben," and four cards: Adaptive Soundscape, Commute Timer, Stress Reliever, and Mood Tracking. It also includes a message: "We are here to improve your mood in this commute..." and a "Sign up" button.
- Adaptive Soundscape:** Shows a play button, volume slider, and four playlists (Playlist1, Playlist2, Playlist3, Playlist4). Buttons for "Connect Spotify" and "Connect Apple Music" are at the bottom.
- Commute timer:** Displays a circular timer set to 02:30.
- Mood Tracking:** A line graph showing mood levels over time, with categories Item 1, Item 2, Item 3, Item 4, and Item 5.
- Stress Reliever:** Displays a large, stylized circular icon.

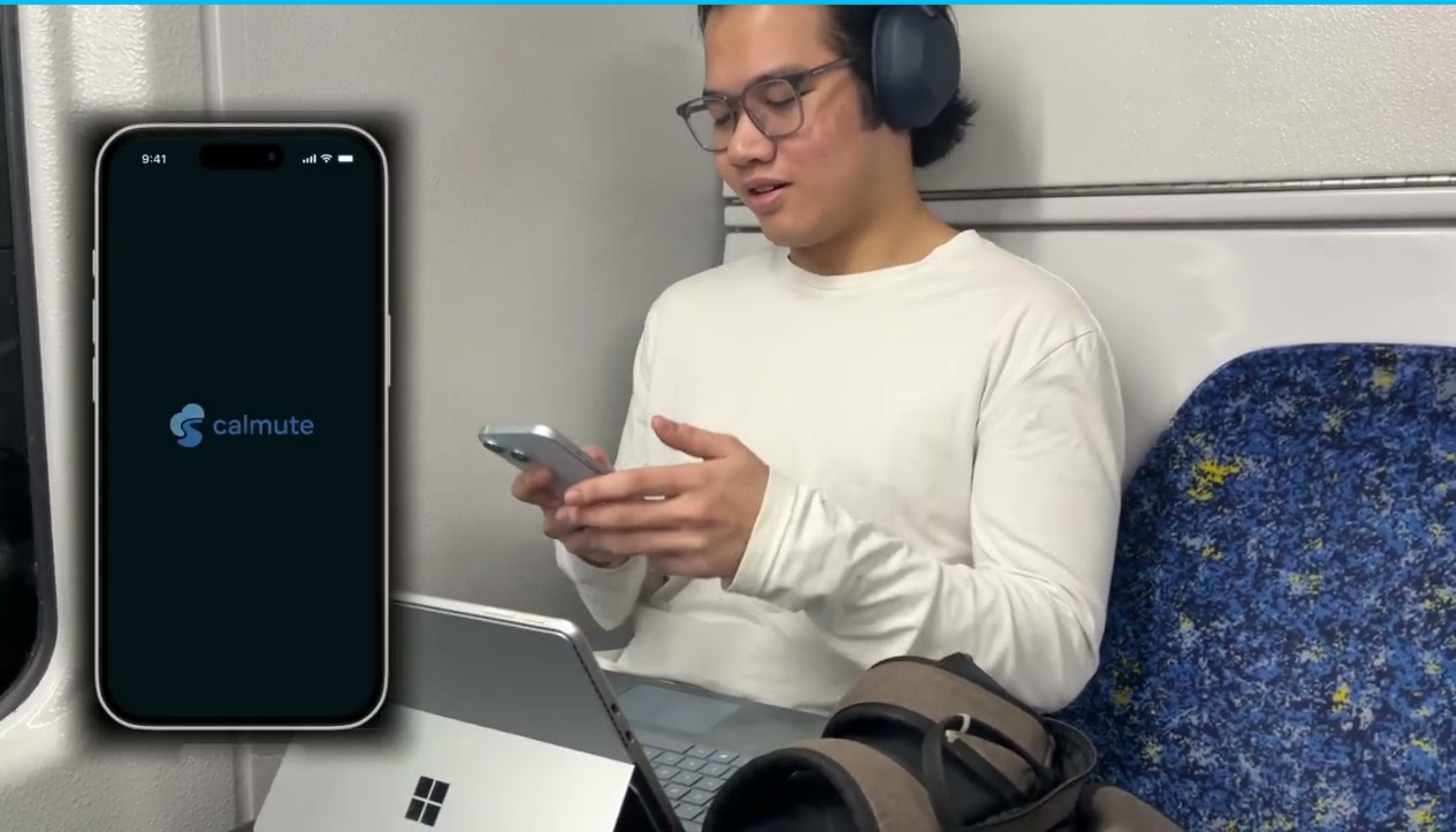
# MID FI DESIGN



# USABILITY EVALUATION

HEURISTIC EVALUATION SHEET				
Scenario:	User name:	Evaluator names:		
You've just boarded a crowded morning train and feel a bit tense. Open Calmute, start a new commute session, and choose a soundscape that helps you relax. Try switching between Calm and Focus modes to find one that feels best for your current mood.	Karthik Pullela	Hyun Woo Cho		
Usability issue (or Positive finding).	Heuristics that are violated (or complied with).	Explain how the specific issue violates with the heuristics.	Impact on user & task	
Summarise what the issue or positive finding is, and include: - page/screen name or location where it occurs - which part of the task the user was doing when it occurred.	For each issue, refer to list of heuristics, then circle ones that are violated (or for each positive finding, circle the ones that are complied with).	Explain the cause of the heuristic violation (or explain how the positive finding complies with the heuristic).		
Instead of having set buttons for the soundscape mood, participant wanted options to customise them. E.g. have a drop-down menu or search bar to search for a specific mood that the user wants at the time.	1. Match system to the real world 2. Consistency & standards 3. Visibility of system status & feedback 4. Error prevention 5. User sense of control & freedom 6. Aesthetic/minimal design 7. Recognition not recall 8. Help users with errors & recovery <b>9. Flexible/ efficiency of use</b> 10. Help & documentation	Current design limits users to three preset moods, which may not reflect their emotional needs. Lack of flexibility reduces efficiency for frequent users who prefer personalised control.	Medium	
Participant wanted to move directly from the Commute Timer/Stress Relief page to the Sounscapes screen without returning to the home page.	1. Match system to the real world 2. Consistency & standards 3. Visibility of system status & feedback 4. Error prevention <b>5. User sense of control &amp; freedom</b> 6. Aesthetic/minimal design 7. Recognition not recall 8. Help users with errors & recovery <b>9. Flexible/ efficiency of use</b> 10. Help & documentation	The navigation structure forces users to return to the Home screen to access other features, interrupting flow an adding unnecessary steps.	Medium	

# PROTOTYPE



[Click me if video doesn't work](#)

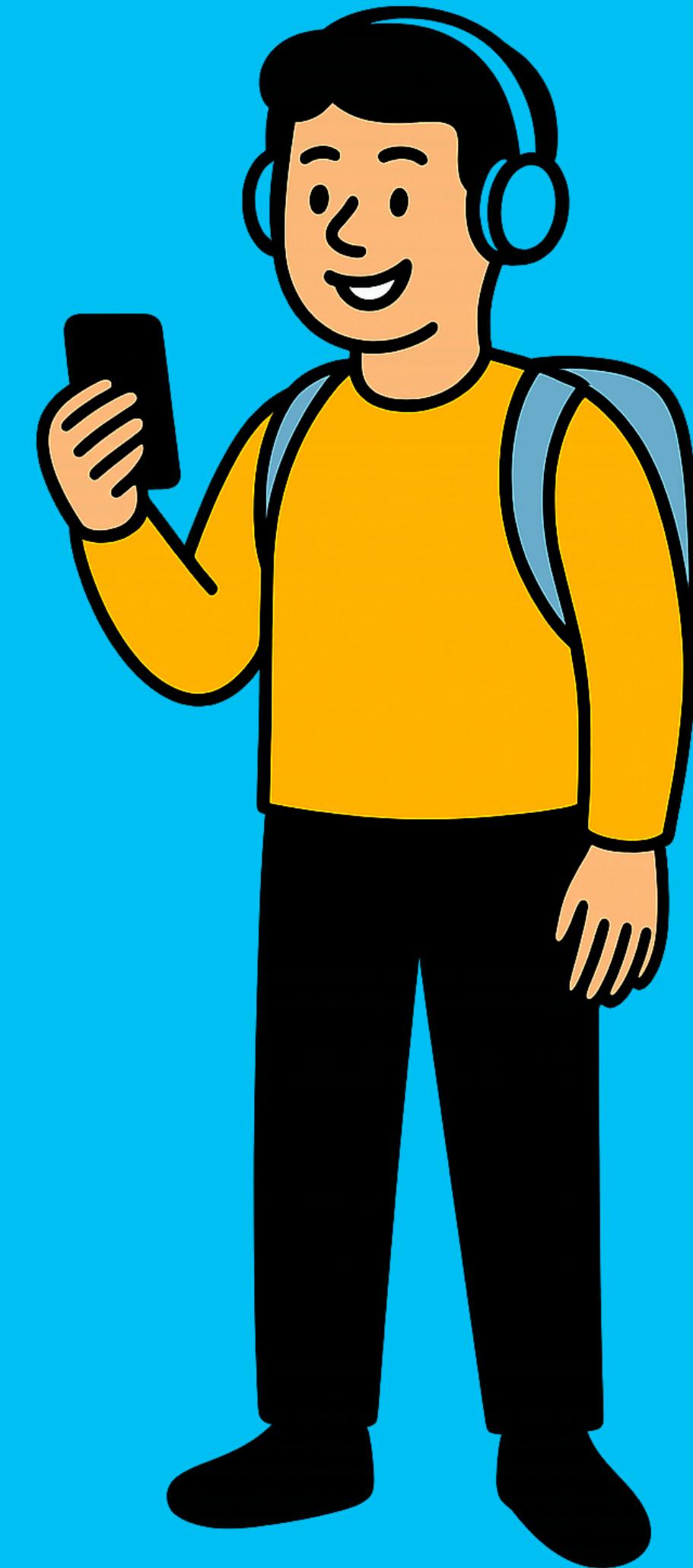
# GOING FORWARDS

**IMPACT, WHAT I LEARNED, WHAT I WOULD DO NEXT TIME**

# IMPACT

“I never realised how much of my commute felt wasted until CalMute gave me something small but meaningful to focus on.”

CalMute helps students transform stressful, unproductive commute time into calm, intentional moments by offering mood tracking, adaptive soundscapes, and micro-activities that fit into real transit scenarios. Instead of feeling drained before the day even starts, users gain emotional control, mental reset time, and a sense of agency over unpredictable travel.



# WHAT I LEARNED

My experience developing CalMute made me recognise that the design process for commuters is different than designing for a “sit down and scroll” app. Commuters are tired, standing, holding bags, engaged with the crowd, processing noise, and struggling with unreliable internet to get through, so their needs, requirements, and wants are constantly evolving with their context and moment in time. It taught me that interaction design is more than designing for the interface, it needs to consider the actual context of the commuter. Good design is not just about what is presented as an interface but about where the user is located, what frame of mind they are in, and what is actually possible for them to do while using the app in moment.



# WHAT I WOULD DO NEXT TIME

- Prototype For Real Commuting Conditions

Test while standing, in motion, with low signal, and with ambient noise, not just at a desk. Commuting context should shape interaction rules.
- Conduct Longer Term Research

Move from single session interviews to daily studies and mood tracking data over time to understand how commuting affects weekly mental wellbeing.
- Test With A More Diverse Range of Commuters

Include night-shift workers, long-distance commuters, people with disabilities, and overall a variety of students to avoid designing only for one type of user.
- Plan For Offline Mode

Allow soundscapes, timers, and reflections to work without mobile data, since signal drops often happen inside tunnels or stations.

# YOU MADE IT TILL THE END!

THANK YOU FOR READING THIS CASE STUDY!

