

Module: Human Computer Interaction (SE2082)

Design Assignment 02 Title: [Campus SOS & SafeWalk: Campus SOS Mobile/Web Design]

Group ID : 13

Group Name : DiagNote

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User Research Summary

Description of participants and stakeholders interviewed (Main stakeholders + secondary stakeholders).

User Personas (04)

Persona 1: Student User (End User)

- **Name:** Nethmi Perera
- **Age:** 21
- **Profile:** Nethmi is a second-year undergraduate student who often has late-evening lab sessions and library study hours. She lives off-campus and commutes, frequently walking through poorly lit areas alone. She is tech-savvy but values her privacy and prefers apps that are intuitive and reliable.
- **Goals & Needs:**
 - To feel safe when walking alone on or near campus, especially after dark.
 - To discreetly call for help without drawing attention.
 - To have trusted friends or authorities monitor her walk home without constant manual check-ins.
 - To use the app in her native language, Sinhala, for comfort and speed in stressful situations.
- **Pain Points & Frustrations:**
 - High anxiety and fear when walking through dark, isolated areas on campus.
 - Worry about sharing her real-time location with too many people or for too long.
 - Unreliable campus network and Wi-Fi that could disrupt the app's functionality when it's needed most.
 - Existing safety apps are either too complicated or not tailored to the specific campus context.

Persona 2: Resident Advisor (RA / First Responder)

- **Name:** Ruwan Bandara
- **Age:** 24
- **Profile:** Ruwan is a senior student and a Resident Advisor (RA) in a university hostel. He is a responsible and approachable point of contact for students, often the first to be notified in case of an emergency. He is busy with his own studies and duties, so he needs efficient tools.
- **Goals & Needs:**
 - To receive immediate, clear, and prioritized notifications for any SOS or SafeWalk alerts from students in his hostel.
 - To have a clear protocol or checklist provided by the app to guide his response.
 - To quickly and easily log incident details via voice notes or simple forms for official reporting.
- **Pain Points & Frustrations:**
 - Juggling emergency communications across multiple platforms like WhatsApp, phone calls, and messaging, which is chaotic and inefficient.
 - Forgetting the specific details of an incident when writing the formal report later.
 - Lack of a standardized process for handling different types of student emergencies.

Persona 3: Security Dispatcher

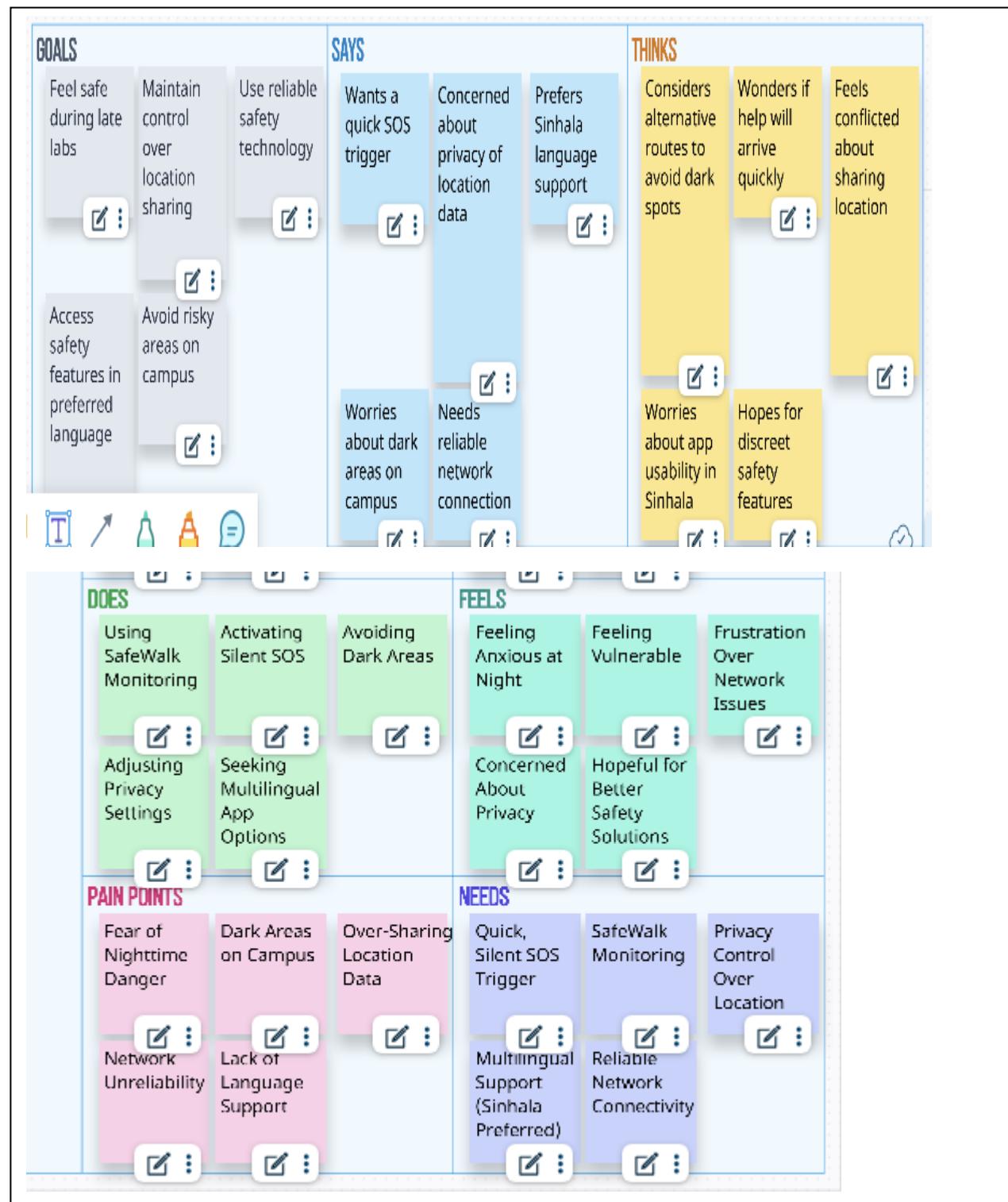
- **Name:** Kamal Fernando
- **Age:** 45
- **Profile:** Kamal is the Shift Lead for Campus Security. He has years of experience and manages a team of guards responding to incidents. He needs a clear, accurate, and actionable overview of situations to deploy resources effectively and maintain campus safety.
- **Goals & Needs:**
 - A centralized dashboard showing a live feed of all active incidents and their precise locations on a campus map.
 - The ability to merge multiple reports of the same incident to avoid confusion and duplicated effort.
 - A clear, time-stamped audit trail for every alert for post-incident review.
 - To send geofenced alert broadcasts to all app users in a specific area (e.g., "Avoid the North Gate").
- **Pain Points & Frustrations:**
 - Being bombarded with multiple, duplicate calls about the same incident, wasting precious time.
 - Receiving vague location data from distressed callers (e.g., "near the library") instead of precise coordinates.
 - Difficulty distinguishing between high-priority emergencies and lower-level wellbeing concerns.

Persona 4: Counselor / Well-Being Officer

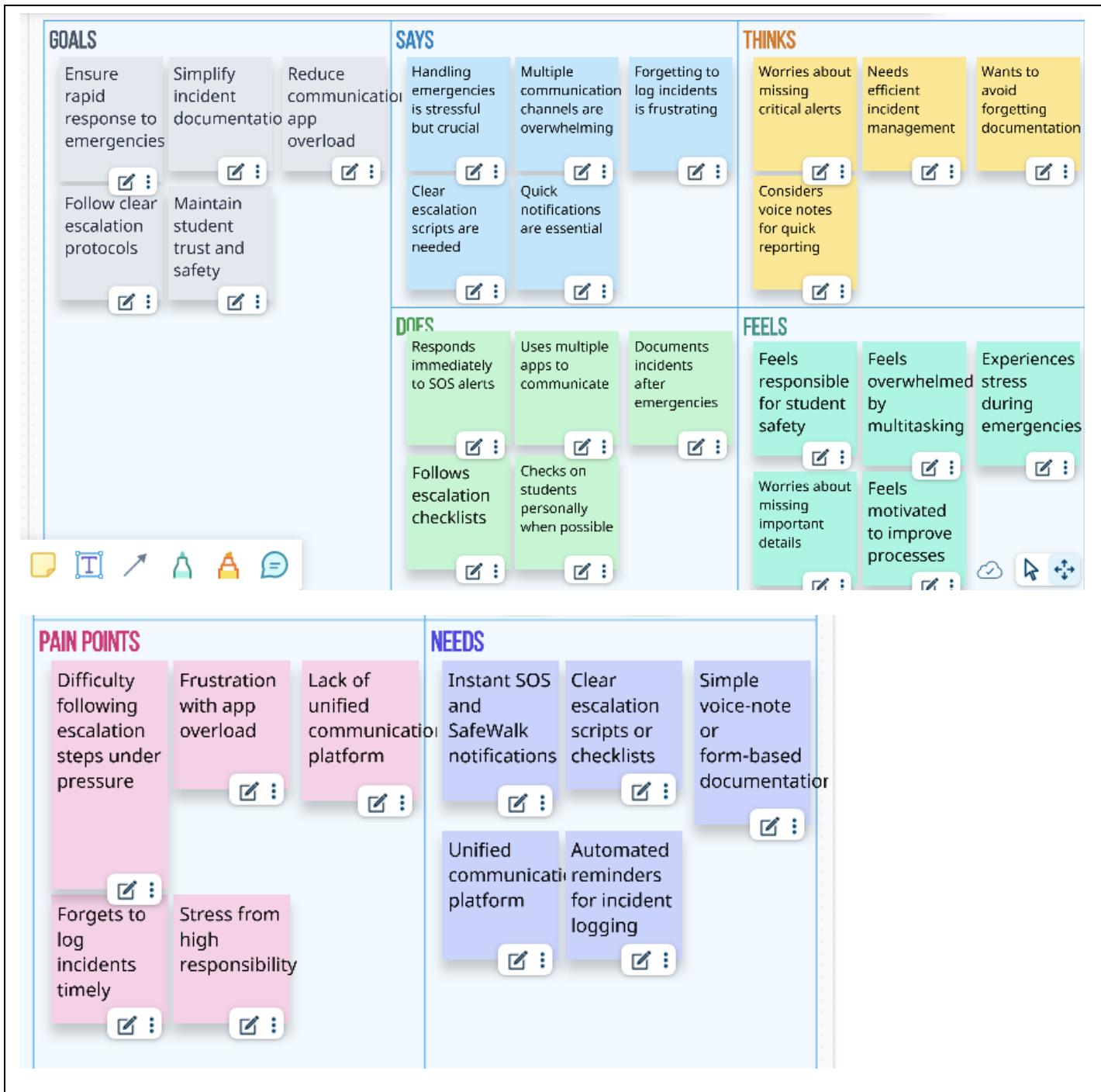
- **Name:** Dr. Anjali Silva
- **Age:** 38
- **Profile:** Dr. Silva is a University Counselor who focuses on student mental health and wellbeing. She is empathetic and proactive but must respect student privacy and boundaries. Her role is supportive, not operational for security incidents.
- **Goals & Needs:**
 - To be notified only of incidents tagged as related to mental health or emotional distress.
 - To see the context of the student's distress (e.g., a triggered SOS after hours near a high-risk location) without accessing sensitive security or medical details.
 - To have a system that helps her send gentle, automated follow-up messages to students who may need support.
- **Pain Points & Frustrations:**
 - Being overloaded with irrelevant security alerts that do not require her involvement.
 - No clear system to route students who need after-hours mental health support to the on-call counselor.
 - Lack of a non-intrusive way to reach out to potentially distressed students.

Empathy Maps (04)

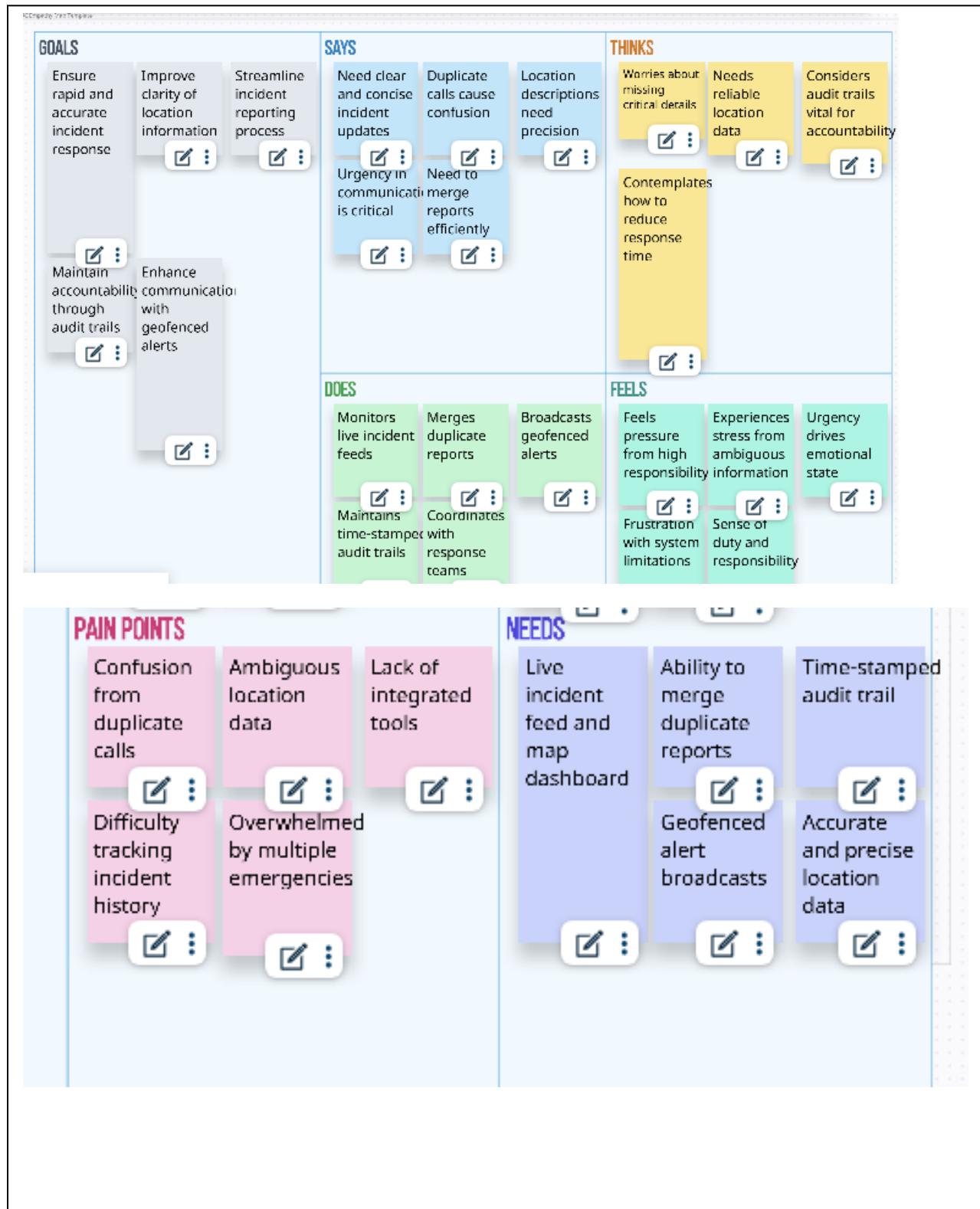
Empathy Map 1 linked to Student (Persona 1)



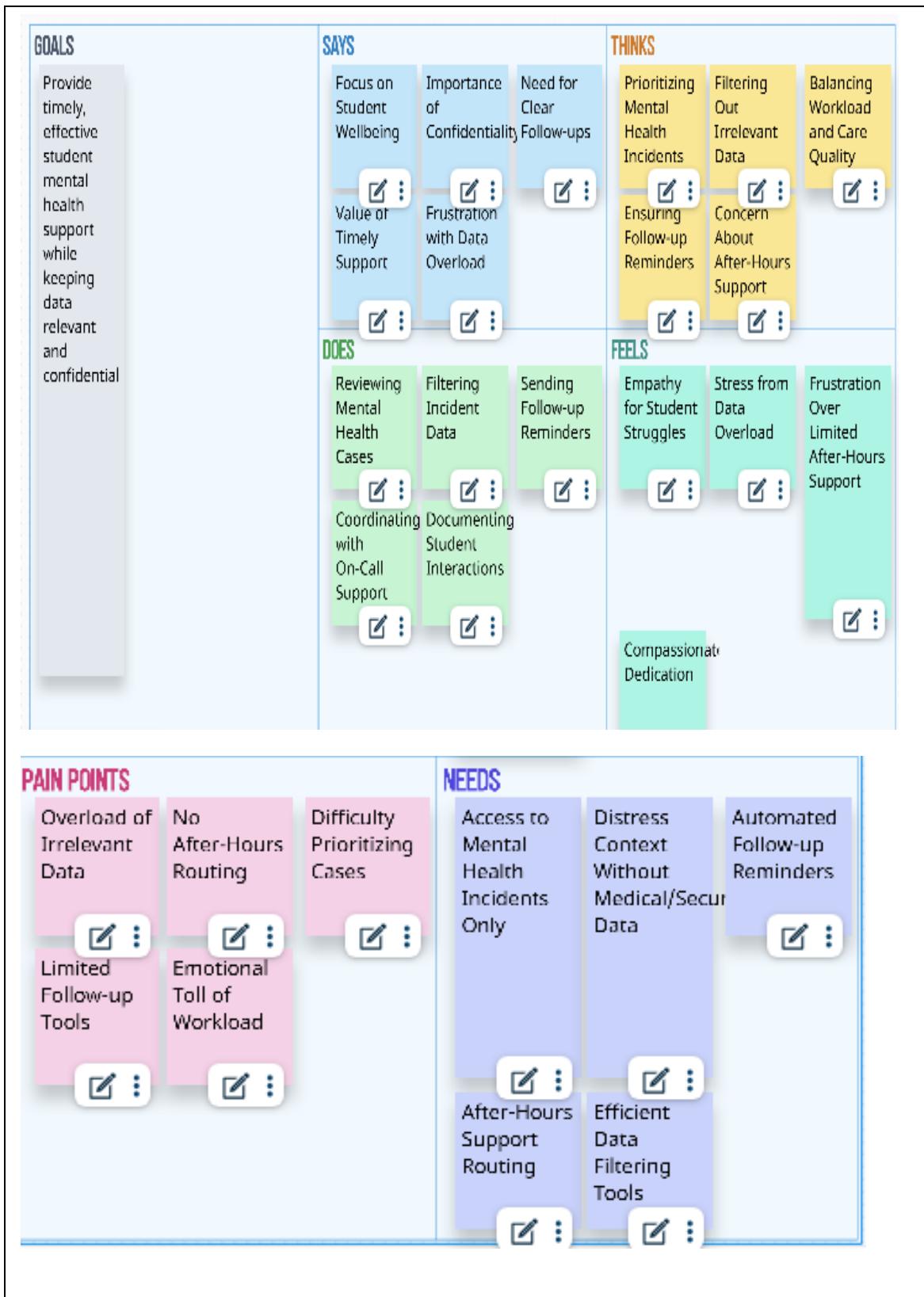
Empathy Map 2 linked to RA (Persona 2)



Empathy Map 3 – linked to Security Dispatcher (Persona 3)



Empathy Map 4 – Linked to counselor (Persona 4)



User Stories (04)

Write in format: As a [user], I want [goal] so that [reason].

Persona 1 : Nethmi.

1. **As a student** walking alone at night, I want to activate a "SafeWalk" session and designate a trusted contact, so that someone can monitor my journey and be alerted if I don't arrive on time.
2. **As a student** in a threatening situation, I want to trigger a silent SOS alarm by pressing a specific, easy-to-find button or using a gesture, so that I can call for help without alerting an attacker.
3. **As a privacy-conscious user**, I want to set my location sharing to automatically expire after a SafeWalk session is complete, so that I don't unintentionally share my location data indefinitely.
4. **As a Sinhala-speaking student**, I want to use the safety app in my native language, so that I can interact with it quickly and without confusion during a high-stress emergency.

Persona 2: Ruwan (Resident Advisor)

1. **As an RA**, I want to receive high-priority, unmistakable notifications for SOS alerts from my residents, so that I can respond immediately without it getting lost among other app notifications.
2. **As an RA**, I want to see a clear, step-by-step checklist when an alert is received, so that I know exactly who to contact (e.g., security, counselor) and what to do next without panicking.
3. **As an RA**, I want to quickly log incident details using a voice-to-text feature or a pre-filled form, so that I can accurately report the event without spending too much of my own study time.
4. **As an RA**, I want all safety-related communication to happen within this one app, so that I don't have to juggle between WhatsApp, calls, and texts during an emergency.

Persona 3: Kamal (Security Dispatcher)

1. **As a security dispatcher**, I want a single dashboard showing all live incidents on a map with their severity and status, so that I can get a situational overview and deploy resources efficiently.
2. **As a security dispatcher**, I want the system to automatically group or merge multiple alerts from the same location and time, so that my team isn't dispatched multiple times for the same incident.
3. **As a security dispatcher**, I want to see the precise GPS coordinates and building name of an alert, so that I can direct my team to the exact spot instead of a vague area like "near the library."
4. **As a security dispatcher**, I want to send instant alerts to all app users within a specific geofenced area (e.g., a campus zone), so that I can warn them of a general threat (e.g., unauthorized person, weather hazard).

Persona 4: Dr. Silva (Counselor / Wellbeing Officer)

1. **As a counselor**, I want to only receive notifications for incidents that are specifically flagged as "wellbeing" or "mental health" concerns, so that I am not overloaded with security alerts that don't require my expertise.
2. **As a counselor**, I want to see non-medical context for a wellbeing alert (e.g., "student triggered SOS after hours near the lake"), so that I can understand the potential level of distress without violating their privacy.
3. **As a counselor**, I want the system to automatically send a gentle, pre-written follow-up message to a student after a distress incident, inviting them to seek support, so that they feel cared for without being pressured.
4. **As a counselor**, I want the app to automatically route after-hours mental health alerts to the on-call counselor, so that students in crisis can always reach a professional, even outside office hours.

User Journey (4)

User Journey (1) – Nethmi (Student)

Stage	Actions & Thoughts	Feeling	Pain Points & Opportunities
Discovery & Setup	Opens app, looks for "SafeWalk". "I hope this is easy to set up."	Anxious, Hopeful	Pain: Fear of walk ahead. Opportunity: One-tap "SafeWalk" button.
Activation	Sets dorm as destination, selects RA as contact."Now someone knows where I am."	Relieved, Cautious	Pain: Battery/network worries. Opportunity: Live location indicator + confirmation.
Journey	Walks, notices dark path."Glad app is running. I feel safer."	Vulnerable, Monitored	Pain: Dark areas at night. Opportunity: "I Feel Nervous" button or flashlight mode.
Incident	Hears noise, hovers over SOS."Maybe it's nothing... but just in case."	Panicked, Hesitant	Pain: Hesitation to trigger alarm. Opportunity: "Report Concern" option.
Resolution	Arrives safely, app auto-stops sharing location."Phew, safe."	Safe, Satisfied	Pain: Forgetting to stop sharing. Opportunity: Geofenced auto-stop + journey summary.

User Journey (2) – Ruwan (resident advisor)

Stage	Actions & Thoughts	Feeling	Pain Points & Opportunities
Notification	Gets SOS alert with location."I need to act fast."	Alerted, Responsible	Pain: Missing alerts. Opportunity: Distinct sound/vibration for emergencies.
Triage	Opens incident screen, checks location."Let me call her first."	Focused, Pressured	Pain: Lack of immediate context. Opportunity: Dedicated incident view with checklist.
Escalation	No answer, escalates to security."This is serious."	Concerned, Decisive	Pain: Finding correct protocol. Opportunity: One-tap escalation with context.
Documentation	Logs incident via voice note."Glad I can just talk."	Relieved, Efficient	Pain: Forgetting details. Opportunity: Voice-to-text logging.
Follow-up	Gets resolution update."Good, all documented."	Reassured, Efficient	Pain: Worry about outcome. Opportunity: Closed-loop incident updates.

User Journey (3) – Kamal (Security Dispatcher)

Stage	Actions & Thoughts	Feeling	Pain Points & Opportunities
Alert	Sees high-priority SOS on map."Let's locate her."	Alerted, Focused	Pain: Multiple alerts causing confusion. Opportunity: Unified incident dashboard.
Deployment	Dispatches nearest patrol."Team 2 is closest."	In Control, Decisive	Pain: Slow response due to unclear locations. Opportunity: Direct dispatch with coordinates.
Management	Monitors feed, sends geofence alert."Contain area, keep others safe."	Proactive, Coordinated	Pain: No easy mass warning system. Opportunity: One-click geofenced alerts.
Resolution	Gets "All Clear", logs actions."Good job, team."	Satisfied, Thorough	Pain: Manual log compilation. Opportunity: Auto audit trail generation.
Analysis	Reviews timeline."Precise location saved crucial seconds."	Analytical, Assured	Pain: Lack of performance data. Opportunity: Data insights for better protocols.

User Journey (4) – Dr. Silva (Counselor)

Stage	Actions & Thoughts	Feeling	Pain Points & Opportunities
Notification	Receives wellbeing alert."I should follow up."	Concerned, Informed	Pain: Alert overload. Opportunity: Smart filtering of wellbeing cases.
Context Review	Views incident context without sensitive data."This could be distress."	Empathetic, Respectful	Pain: Lack of sufficient context. Opportunity: Non-sensitive triage data.
Outreach	Sends gentle pre-written message."Low-pressure support."	Supportive, Cautious	Pain: No easy outreach method. Opportunity: Template messaging.
Connection	Schedules session after response."Making next step easy."	Encouraged, Helpful	Pain: Students unsure of accessing help. Opportunity: Scheduling integration.
Follow-up	Logs contact and updates records."On-call support ensured."	Thorough, Supported	Pain: No after-hours protocol. Opportunity: Automated handover system.

Contribution Matrix (04 Group Members)

Note: including the contribution as a percentage

Group Member	User Research (%)	Personas & Empathy Maps (%)	User Stories & Journey (%)	Figma Prototype (%)	Report Writing (%)	Total Contribution (%)
Member 1	20	20	20	20	20	100
Member 2	20	20	20	20	20	100
Member 3	20	20	20	20	20	100
Member 4	20	20	20	20	20	100

AI Tool Usage & Prompts

Persona	To get an idea about personas
Tool	Name: ChatGPT
	URL : https://chatgpt.com/
Prompt	We are doing a figma project. This pdf contains the transcript of the dialogues with participants of the research. Can you analyze this pdf nicely and find the what are the requirements of this project.? List down all of them. identify 4 personas and give me A rough structure to design a web and mobile prototype in figma. I need frame need to implement and each frames what we need to integrate

Empathy Maps	To get an idea and generate the maps
Tool	Name : ChatGPT, Creately
	URL : https://chatgpt.com/ https://creately.com/usage/empathy-map-templates/
Prompt	Now I need to generate empathy maps for these for personas. I am using creately for that. Can you give me transcript/prompt to give to creately to generate empathy maps separately for each persona

User Stories	To get an idea about user stories, Well-written, goaloriented, clear benefit statements
Tool	Name ; DeepSeek
	URL: https://www.deepseek.com/en
Prompt	Now I have given personas. Can you give me user stories for each persona.?

User Journey	To get an idea how to write user journeys and to summarize written user journeys
Tool	Name : Deepseek, ChatGPT URL: https://www.deepseek.com/en https://chatgpt.com/
Prompt	<ul style="list-style-type: none"> • Next What I have to do is write user journeys. Can you write user journeys for each persona i have given you • I need four tables seperately. Bit summarized

Prototype	
	Name : ChatGPT, Google Stich
	URL : https://chatgpt.com/ https://stitch.withgoogle.com/
Prompt	<ul style="list-style-type: none"> • Can you give me the full transcript to build these two projects from the stich. Web and mobile version. give me those transcripts/prompts seperately covering all • Can you build a sketch using given prompt for mobile and web version

Figma Prototype (online link)

Insert Figma prototype link here:

<https://www.figma.com/design/t0I2fNCxP0z3NKcUYRW31x/Group-13?node-id=0-1&t=LrnsxbSu2Gi7cY1M-1>

Figma Prototype (OneDrive link)

Insert Figma prototype link here:

https://mysliit-my.sharepoint.com/:f/g/personal/it23669062_my_sliit_lk/Ek9nmpLznhFvq_k63w22aEB0QDH0yRkq2RQUMIdJUxxQg?e=MKP4cC

Report Template (OneDrive link)

Insert Report Template link here:

https://mysliit-my.sharepoint.com/:w/g/personal/it23632028_my_sliit_lk/ESJS76Ah7PJNqxAizYOhp2EBgHVqCjkfYvA8kL3bqTrBgg?e=yD5fGq