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Course/Year/Block: BSIT 3B2

UI/UX Case Study

Exer 1:

Project Title: "PSU Barcode Attendance System for College Students During Events"

Subtitle: "Enhancing Attendance Monitoring for each Colleges and by Course at Palawan State University"

Client/Company/Project Type: This project is an independent initiative to enhance management for college students at Palawan State University. This innovative system will provide a more efficient and accurate method for tracking student attendance on a per-college and per-course basis during events.

Project Date: October 2023 - February 2024

Exer 2:

Your role: User Interface (UI) and User Experience (UX) Designer

As a User Interface (UI) and User Experience (UX) Designer for the "PSU Barcode Attendance System for College Students During Events" project, my role is pivotal in creating an intuitive, user-friendly, and visually appealing interface for both the mobile application and any associated web interfaces.

Responsibilities:

- Conduct user research to understand the needs, preferences, and pain points of students regarding attendance tracking.
- Create high-fidelity UI designs that align with the project's branding and visual identity.
- Collaborate with the training and support team to develop user guides and tutorials that explain how to use the website or application effectively.

Project Summary/About this Project

Overview:

The "PSU Barcode Attendance System for College Students During Events" is an innovative technology implementation project designed to enhance attendance monitoring at Palawan State University. By switching from a manual to a barcode-based system for tracking attendance, the "PSU Barcode Attendance System for College Students During Events" project aims to increase efficiency, accuracy, and data-driven decision-making for students.

Goals:

- Efficient Attendance Tracking
- Accurate Data
- Reduced Wait Times and Crowding
- Enhanced Student Experience

Results:

- The implementation of the "PSU Barcode Attendance System During Events" resulted in a more transparent, efficient, and data-driven approach to attendance monitoring.
- Students benefit from a user-friendly mobile app that provides easy access to attendance records and important course information.
- The project enhances accountability, improves overall student engagement, and contributes to academic success at Palawan State University.

Exer 3:

The challenge

Problem Statement:

1. Students have their own complaints, in the length of the line and often taking several minutes before being able to have an attendance.
2. Because of the lengthy process of writing their names, block and year level, time in and time out, and signing, students spend even more time in the line.
3. The IT students have the cards that they just tap, but sometimes, errors still occur due to the failure of the name to appear on the monitor.
4. Attendance can be cheated by sending your card to a friend or classmate, rendering the system ineffective.

User Interviews:

BAS-INTERVIEW

Questions Responses 11 Settings

Barcode Attendance System

You can answer in TAGALOG or TAGLISH, whatever you want (wag lang ibang language) as long as you are comfortable answering the form.

Email *

Valid email

This form is collecting emails. [Change settings](#)

YEAR-BLOCK and COURSE:(3-2BSIT) *

Short answer text

Activate Windows
Go to Settings to activate Windows.

Google Forms: Sign-in

pwede po pasagot hehe kahit ano lang, thank u.

maya pag uwi ko wala pa me internet

thank u

GIRLS ONLY

https://forms.gle/ermDX7u4DXJNZ65y8

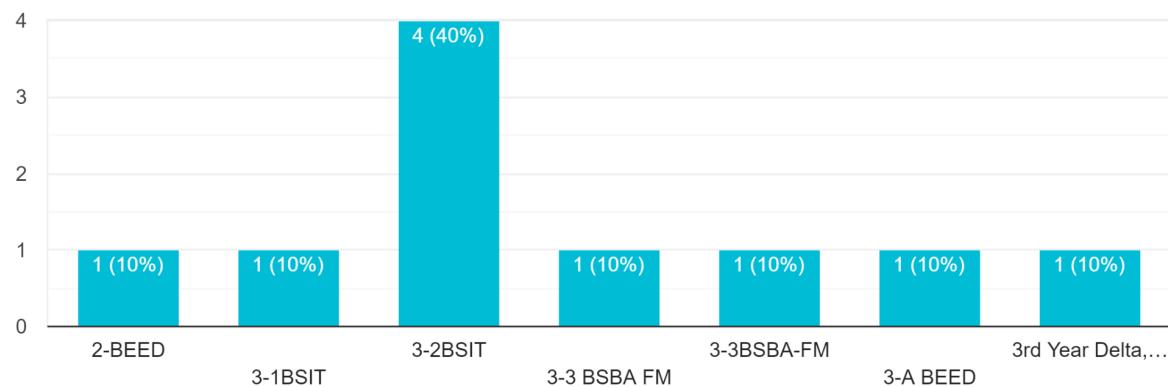
https://forms.gle/ermDX7u4DXJNZ65y8

Google Forms: Sign-in

@everyone

YEAR-BLOCK and COURSE:(3-2BSIT)

10 responses



Those questions help me to understand the students because of their typical experience with the current manual attendance system during school or college events and the challenges that they encounter when making their attendance during those events. I ask them and they give me their opinion regarding the potential benefits of a Barcode Attendance System. It gives them the opportunity to express their preferences by highlighting what aspects of such a system they find appealing and also, I used Yes or No Questions because these questions are useful for quickly gauging participants' opinions and preferences in a structured manner.

Pain Points:

- **Time-Consuming**

11 responses

It's hard and time consuming

manual attendance need a lot of patience and time

Yes, manual attendance can be a hassle, especially when there's an event attendance sheets aren't organized by courses. It consumes valuable time and can lead to confusion and errors. Automated systems offer a more efficient and accurate solution.

- Queue and Congestion
- Difficulty in Access

11 responses

Siguring attendance can be quite inconvenient as sometimes the officers are not punctual, causing delays and long queues of waiting students. This situation forces some students to return to school, even though it's late, despite living far away, just to ensure their attendance is signed.

It takes time for the system to recognize card

In terms of attendance, it takes up a lot of my time because of the step-by-step writing procedure, which causes us to wait in queue for a long period.

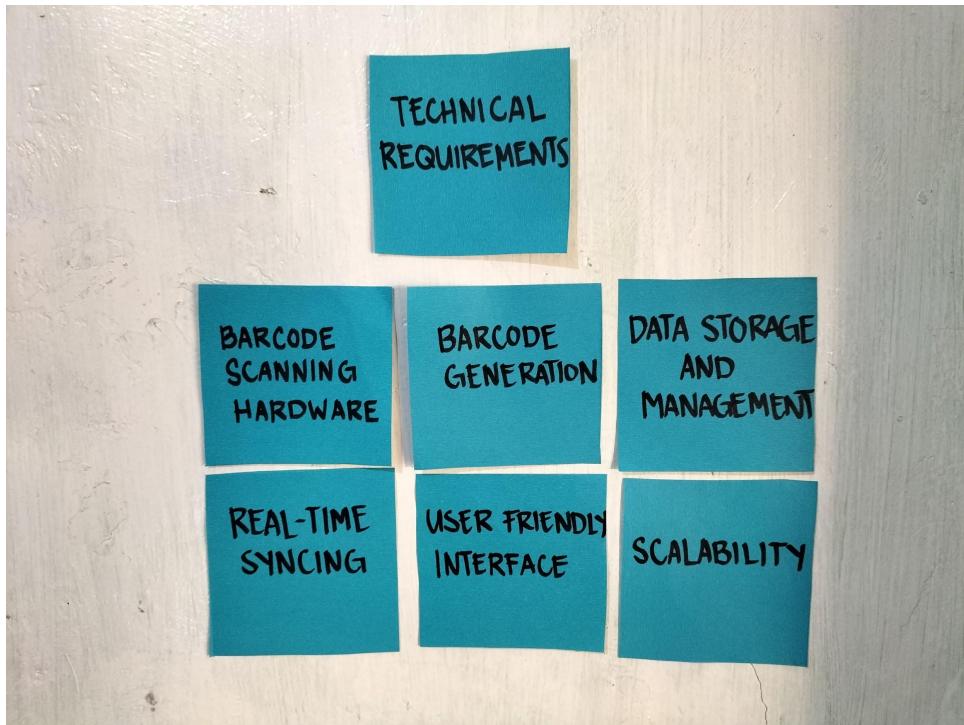
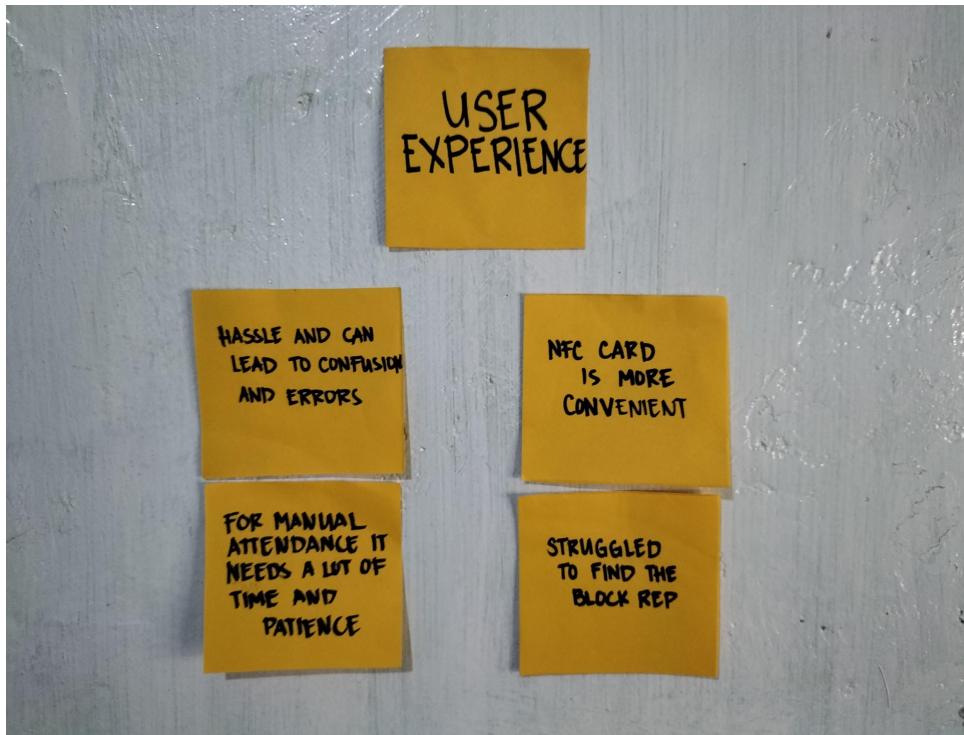
It's a hassle because you need to wait long time to have attendance. You can't step out in the line because you need to have your attendance for this event. If you failed to have it, then you'll face consequence (pay for penalty)

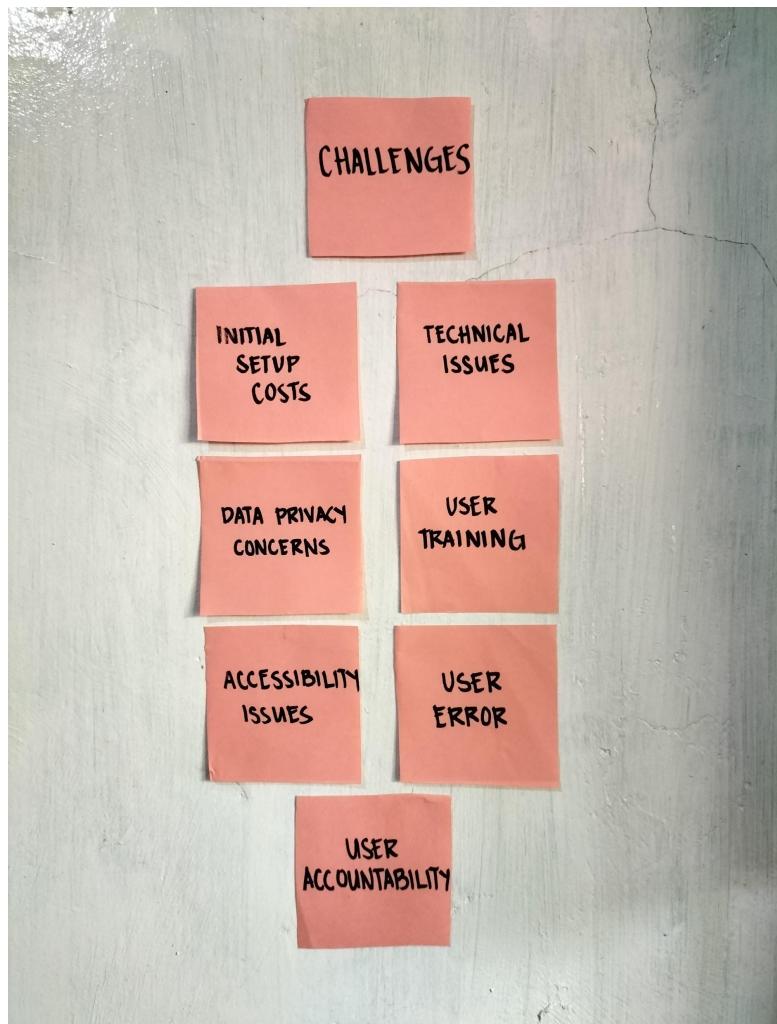
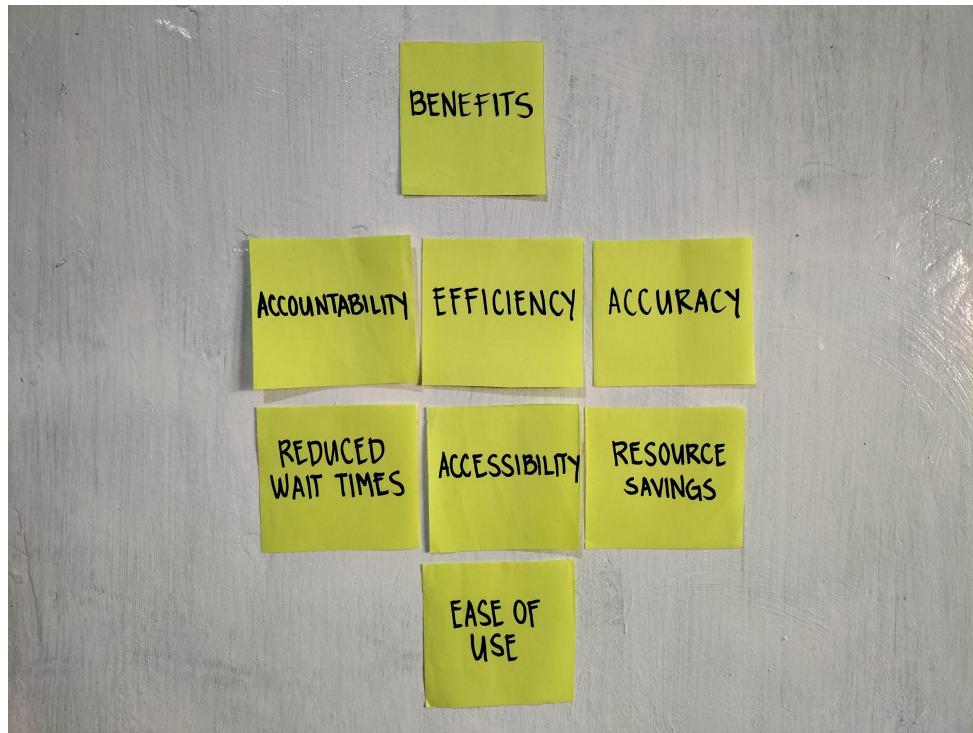
Kailangan pa mag pila ng matagal for a stamp

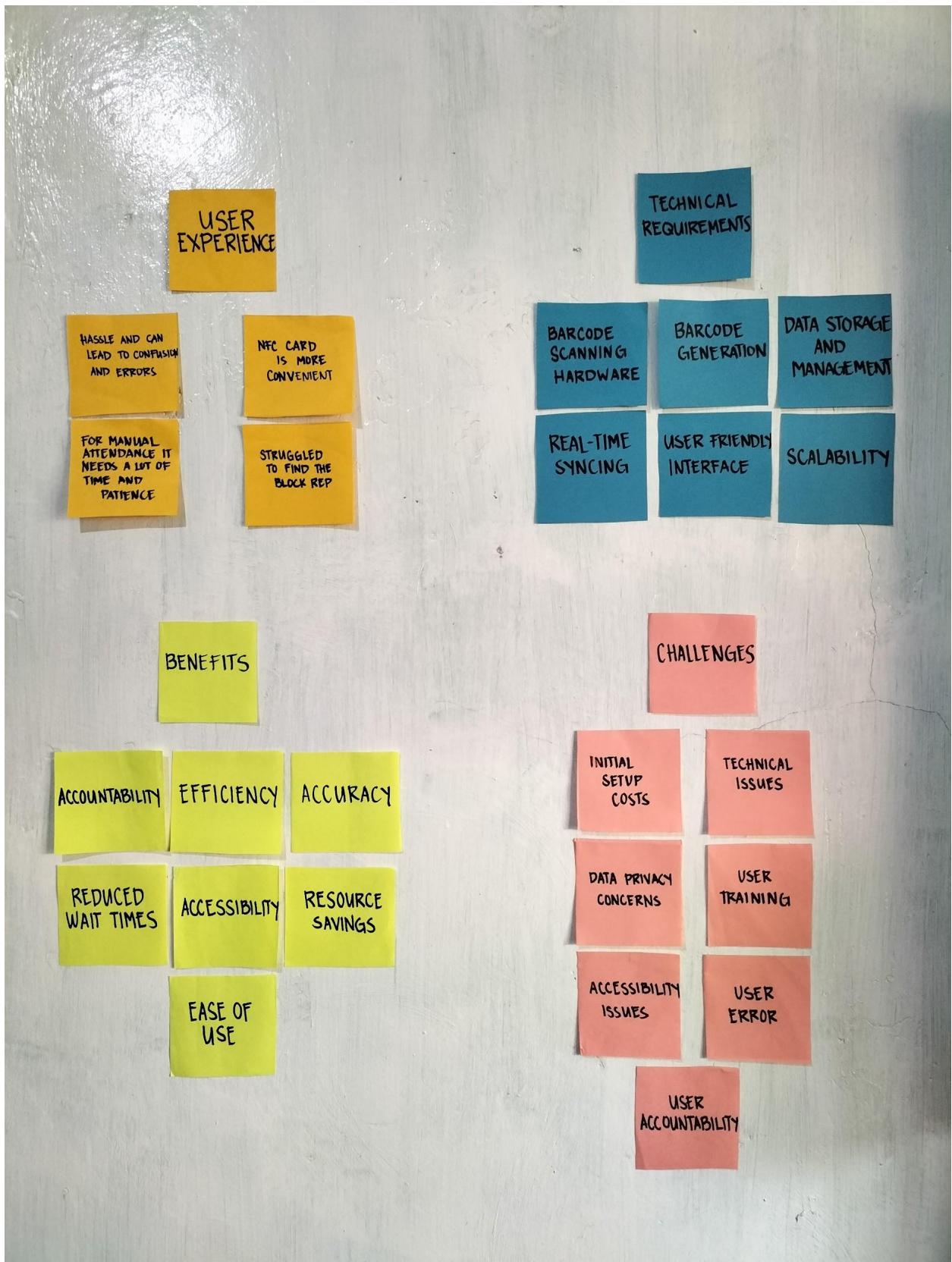
Opo, struggled kami minsan kakahanap sa block rep para makapapirma

Hirap hanapin mga officers pag pirmahan na lalo na pag out 😞

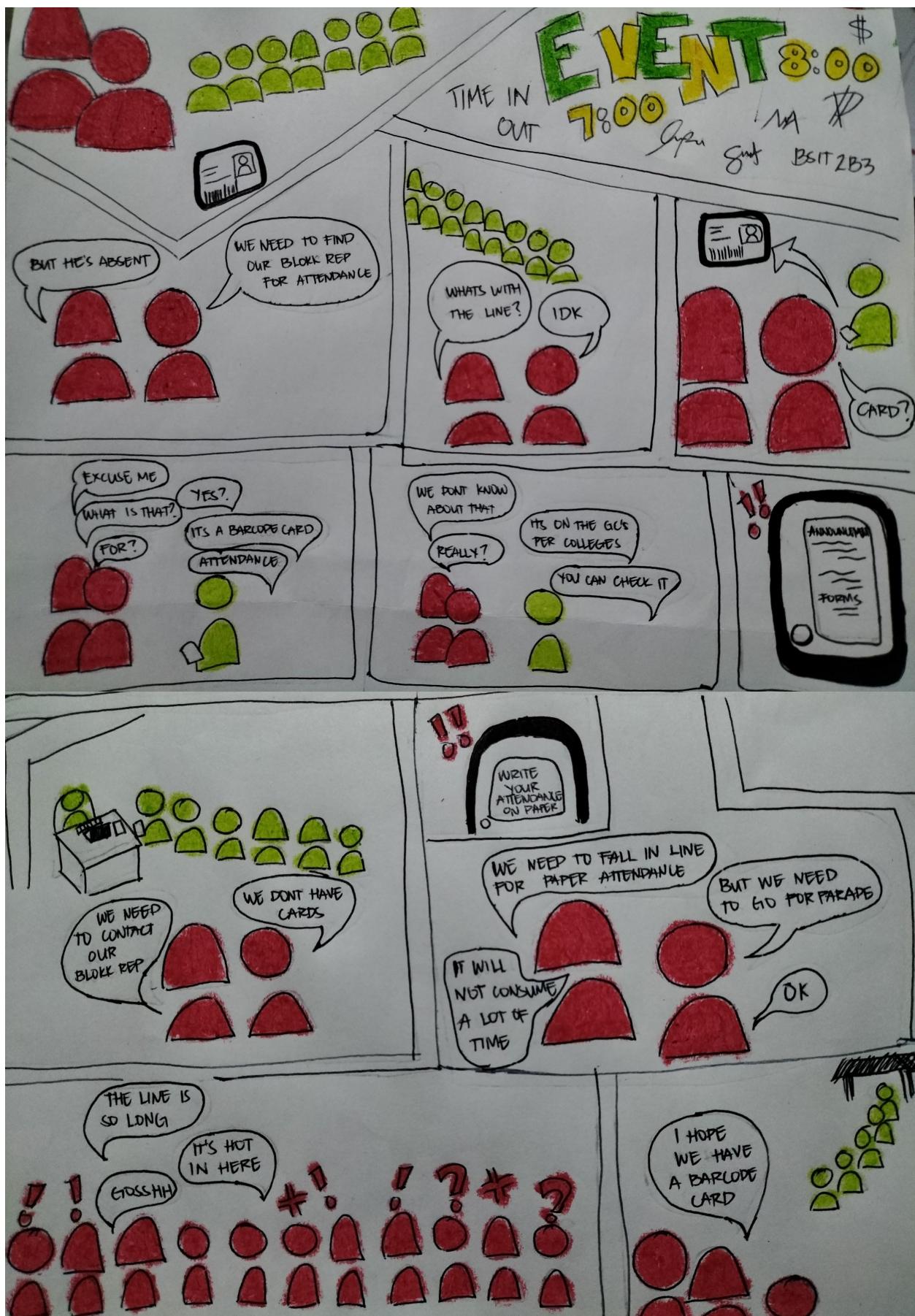
Affinity Mapping:

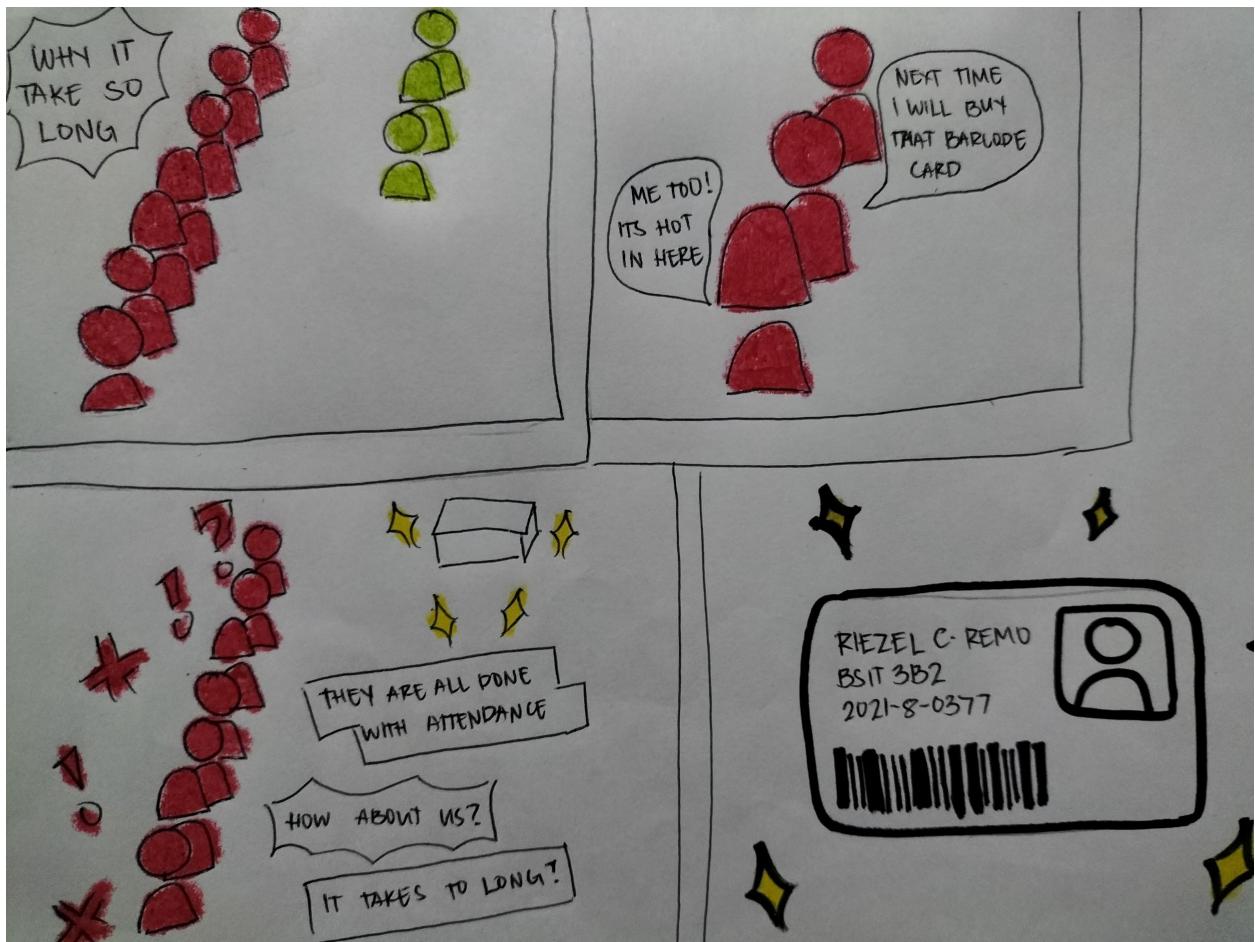






Personas:





Persona 1: Student Alexa

Background:

Alexa is a 22-year-old senior student majoring in Environmental Science at Palawan State University. Throughout her academic journey, she has experienced manual attendance tracking.

Goals and Needs:

- Alexa values accurate attendance records as they impact his academic progress.
- She wishes to see an improvement in the efficiency of the attendance tracking process, especially during large lectures or university events.

Challenges:

- Alexa has encountered instances of errors in manual attendance, which led to inaccuracies in her records.

- She finds it frustrating to wait in long lines during events and sometimes misses important content in lectures due to this delay.

Interaction with the Barcode Attendance System:

- When the Barcode Attendance System is introduced, Alexa quickly adapts to the new process.
- She appreciates the system's accuracy and efficiency, which eliminates the errors she experienced with manual attendance.
- The reduced wait times during attendance tracking at university events significantly improve her overall experience.

Persona 2: Student Carlos

Background:

Carlos is a 21-year-old senior student majoring in Environmental Science at Palawan State University. Over the years, he has attended numerous college events, seminars, and workshops that required manual attendance tracking.

Goals and Needs:

- Carlos seeks a more streamlined and efficient process for marking attendance during these events.
- Access to timely attendance data is essential for verifying his participation in extracurricular activities, which he believes will enhance his resume.

Challenges:

- Carlos has often faced long queues and delays when manually marking attendance during school events.
- He believes that the current system can lead to missed opportunities during valuable networking sessions.

Interaction with the Barcode Attendance System:

- When the Barcode Attendance System is introduced for college events, Carlos welcomes the change.
- The system's quick barcode scanning feature significantly reduces wait times, allowing him to maximize his participation in event activities.
- Carlos appreciates the convenience and accuracy of the system, which enhances his overall experience during college events.

Persona 3: Student Rou

Background:

Rou is a 20-year-old junior student majoring in Information Technology at Palawan State University. He has attended multiple college events and seminars where the Barcode Attendance System was in use.

Goals and Needs:

- Rou is highly involved in extracurricular activities and values attending college events to expand her knowledge and network.
- He appreciates the efficiency of the Barcode Attendance System during these events, as it allows him to manage his time effectively and participate in multiple activities.

Benefits of Barcode Attendance System:

- Rou finds the Barcode Attendance System extremely convenient during college events. He can quickly scan his barcode and move on to enjoy the event's content without waiting in long lines.
- The real-time updates on his attendance records help him keep track of his participation in various activities and clubs, which he often includes on his resume.

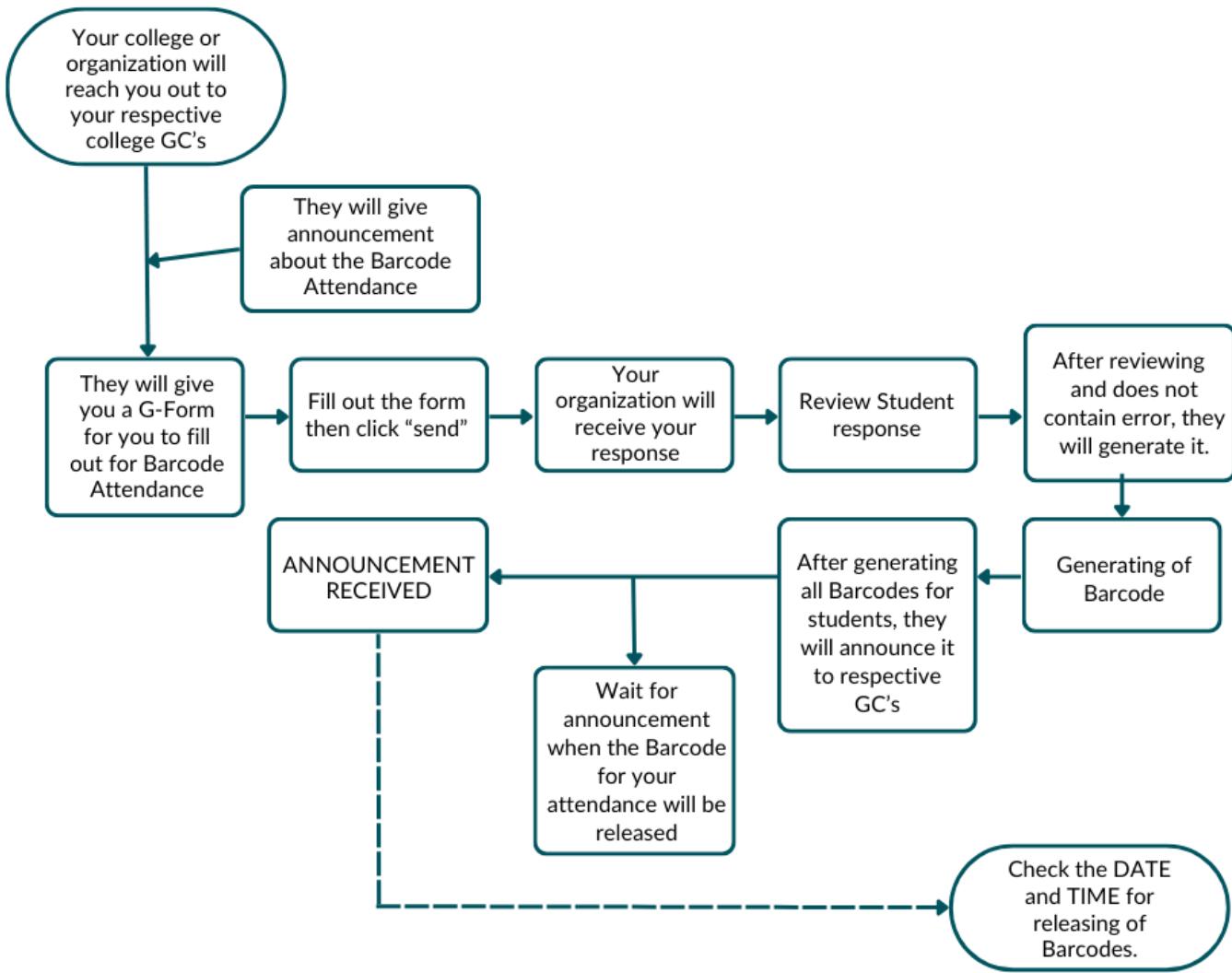
Challenges (Minimal):

Rou's experience with the Barcode Attendance System has been positive overall, and he hasn't encountered significant challenges with it during college events.

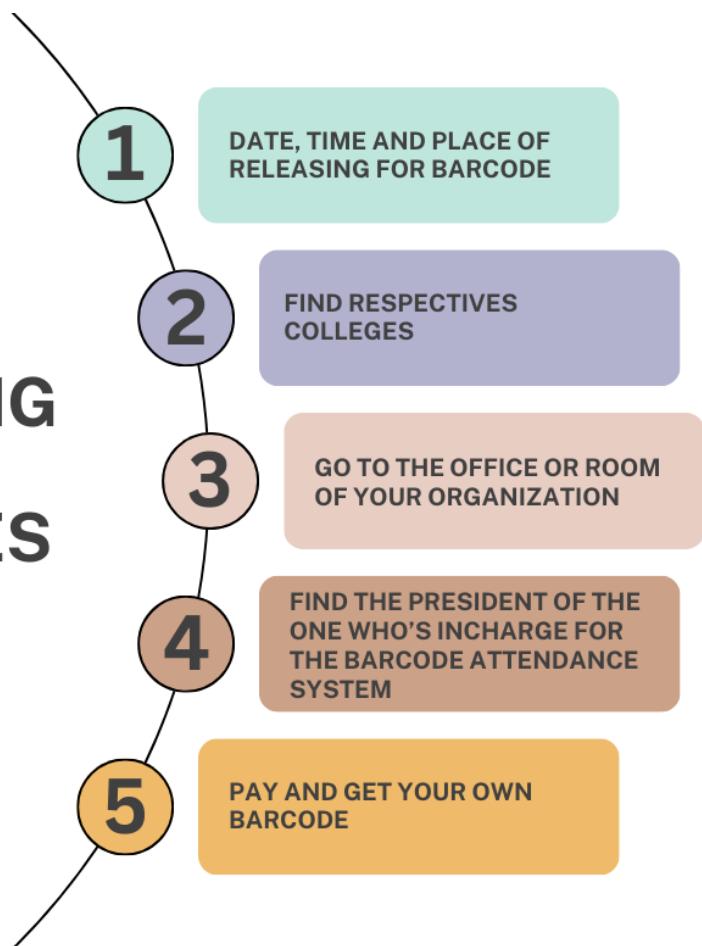
Interaction with the Barcode Attendance System:

Rou seamlessly uses the system's barcode scanning feature, appreciating the time it saves him during busy college events.

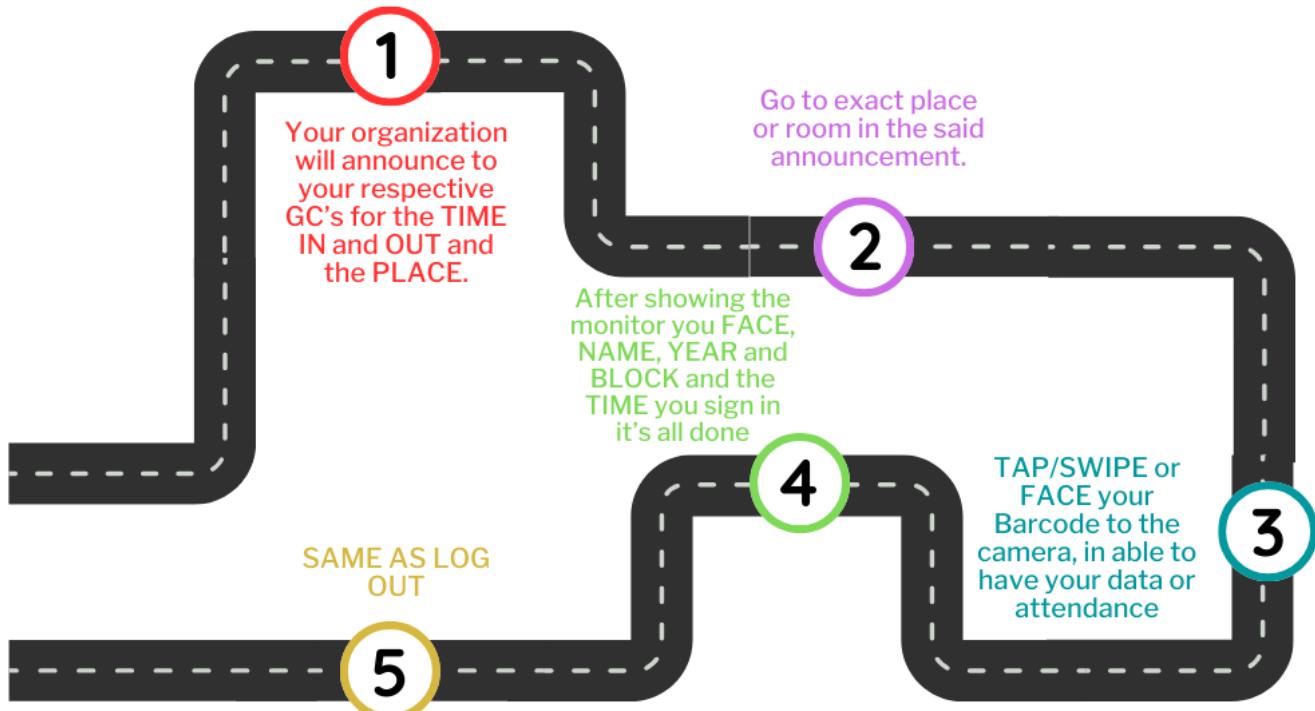
Customer Journey Mapping:



RELEASING OF BARCODES



DURING EVENT



Exer 4:

Design Solutions:

- **APPLICATION FOR BARCODE ATTENDANCE**

Design Solution: User Authentication, user or student can log in with their student credentials to access their attendance records. The application stores past event attendance records, including dates, time in and out, and event names.

Desired Outcomes: Students have easy access to a clear history of their attendance, promoting transparency and accountability also, empower students to monitor their attendance progress over time, by viewing their past attendance, students can make informed decisions about event participation.

- **ACCESSIBLE ENTRY LANES**

Design Solution: Designate separate entry lanes for individuals with accessibility needs and provide staff assistance.

Desired Outcome: Improve accessibility, reduce waiting times for those who require assistance, and create a more inclusive event environment.

- **MULTI-POINT ENTRY ROOMS**

Design Solution: Setting up multiple entry points or gates for attendees to access an event. Each entry point is staffed with attendants and equipped with barcode scanners, ensuring that attendees can enter the event through different queues simultaneously. This approach can effectively distribute the flow of attendees, reduce congestion, and expedite the check-in process.

Desired Outcome: To divide the queues, minimize bottlenecks, and provide a more efficient and organized way for students to enter the event. It can significantly reduce waiting times and make the attendance process smoother and more manageable for both students and event organizers or the officers.

User Flow

Optimized User Flow

- **Registration:** This step is essential, as it's the starting point for students to register in their designated colleges. The system generates unique barcodes for each student that they can use during college or school events.
- **Barcode Distribution:** The optimized aspect here is in how the barcodes are distributed. By providing barcodes on students ID cards or separately, the school offers flexibility.
- **Event Time In:** Optimized for efficiency and accuracy. Automated scanners and event staff or officers ensure quick and accurate time in.

- **Barcode Scanning:** This step is optimized for data capture accuracy, ensuring that the system records attendance with minimal errors.
- **Event Participation:** This step is inherently efficient. Once checked in, the system automatically tracks attendance without additional manual input.
- **Event Time Out:** Checking out optimizes attendance tracking by providing a clear record of the duration of a student's presence at an event.
- **Access to Attendance Records:** Accessibility to attendance records is vital for students to monitor their attendance, providing transparency and accountability.
- **Review Past Attendance:** The review process has been optimized for convenience and ease of access, making it simple for students to check their past attendance records.

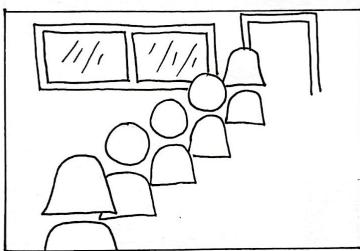
Optimized User Flow

- **User Login:** The user opens the attendance tracking app and logs in using their student credentials (username and password).
- **Dashboard:** After a successful login, the user is directed to a well-organized dashboard.
- **View Attendance Records:** On the dashboard, the user can easily access their "Attendance History" section.
- **Event List:** Within "Attendance History," the user is presented with a clear list of past events they have attended.
- **Select an Event:** The user can select a specific event from the list they want to review.
- **Event Details:** Upon selecting an event, the app displays details, including the event name, date, time, and location.
- **Time-In and Time-Out Times:** The user can view the time they time in and time out for the selected event.
- **Profile Management:** From the dashboard, the user can access their profile to update information, such as contact details or profile picture.
- **Logout:** When finished, the user can log out securely.

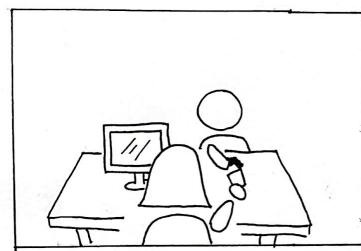
Storyboards



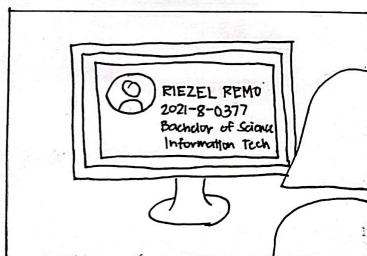
PREPARE YOUR BARCODE ID IF YOU HAVE ONE, BUT IF DON'T HAVE GET YOURS AS SOON AS POSSIBLE IN YOUR COLLEGE OR ORGANIZATION.



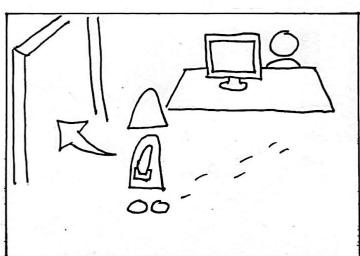
GO TO DESIGNATED PLACE OR ROOM FOR YOUR ATTENDANCE DURING OR THE DAY OF EVENT.



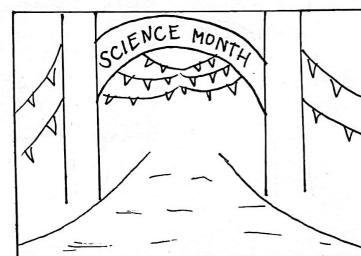
PRESENT YOUR BARCODE ID THEN THE STAFF OR OFFICER WILL SCAN IT.



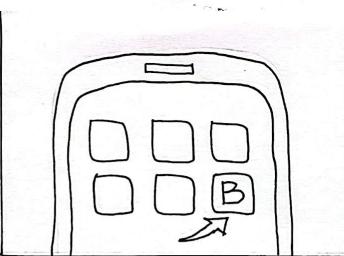
AFTER SCANNING, IT WILL SHOW YOUR PROFILE OR DATA IN THE SCREEN.



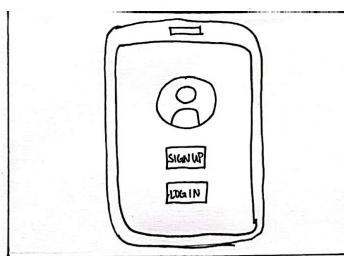
GET YOUR BARCODE ID AFTER YOU TIME IN FOR ATTENDANCE THEN LEAVE THE ROOM.



GO TO EVENT AND ENJOY THE REST OF EVENT AND WAIT FOR THE ANNOUNCEMENT FOR THE TIME OF TIME OUT AND DO THE SAME PROCESS.



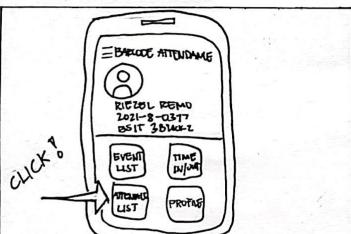
GO TO THE SITE OR APP OF BARCODE ATTENDANCE APP.



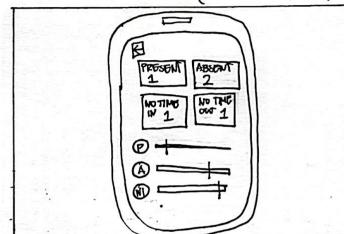
SIGN UP OR LOG IN IF YOU ALREADY HAVE AN ACCOUNT (USE CORPORATE EMAIL).



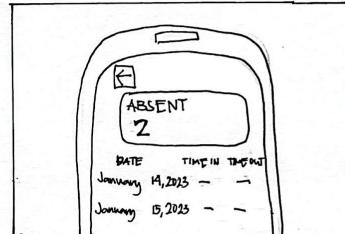
IT WILL SHOW YOU THE HOME PAGE AFTER YOU LOG IN.



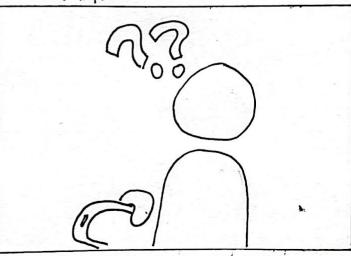
VISIT THE ATTENDANCE LIST TO CHECK IF HOW MANY YOUR PRESENT, ABSENT AND TIME IN/OUT.



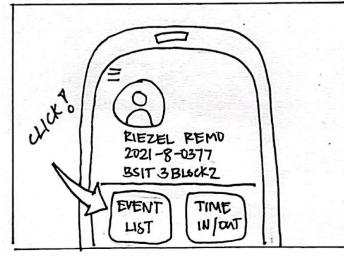
YOU WILL SEE ALL YOUR ATTENDANCE RECORD IN THIS, GO TO ABSENT IF YOU WANT TO CHECK THE DATE OF YOUR ABSENT.



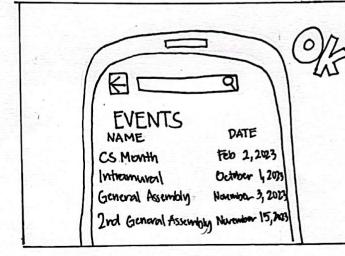
AFTER CLICKING THE ABSENT BUTTON IT WILL SHOW YOU THE DATE AND YOUR ATTENDANCE FOR THAT DATE.



YOU WILL THINK WHAT WAS THE EVENT DURING THAT DAY, AND HOW YOU WILL KNOW ABOUT THAT EVENT.



GO BACK TO HOME PAGE THEN YOU WILL SEE EVENT LIST THEN CLICK THAT BUTTON.



AFTER CLICKING THAT BUTTON IT WILL SHOW THE NAME OF EVENTS AND ALSO THE DATE UP IT.

Sketches

1. Home Screen:

2. Barcode Attendance Screen:

3. Event List Screen:

4. Attendance Record Screen:

5. Profile Screen:

6. Barcode Record System:

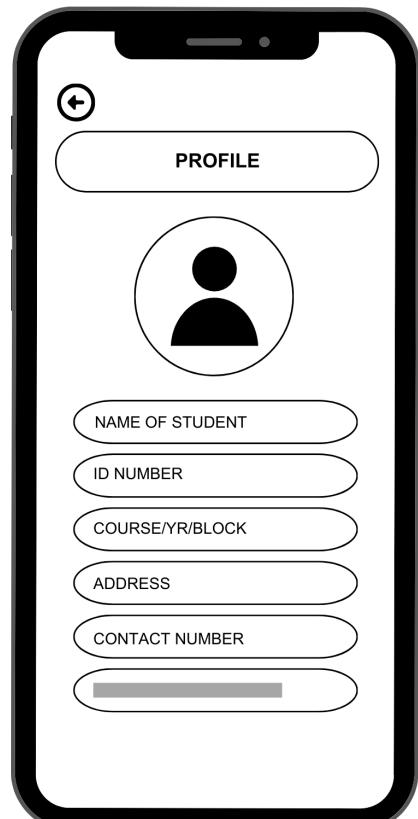
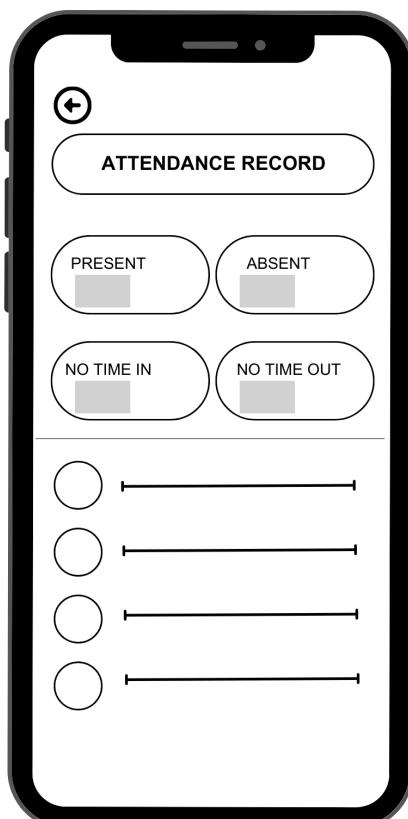
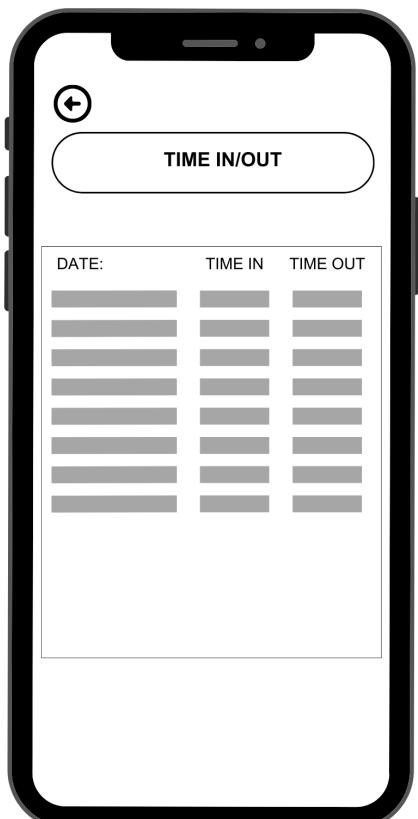
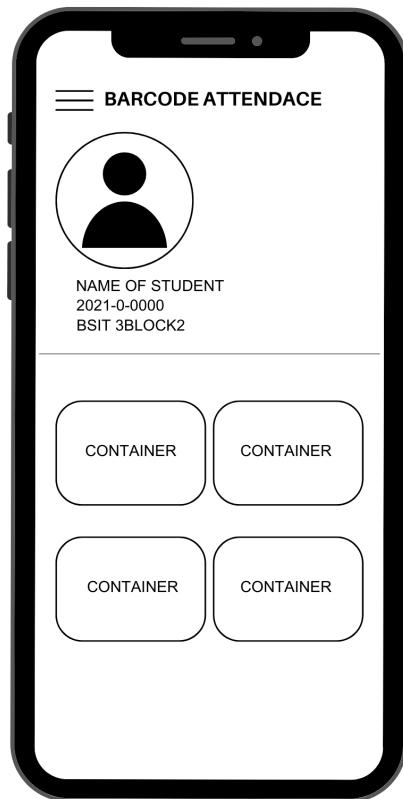
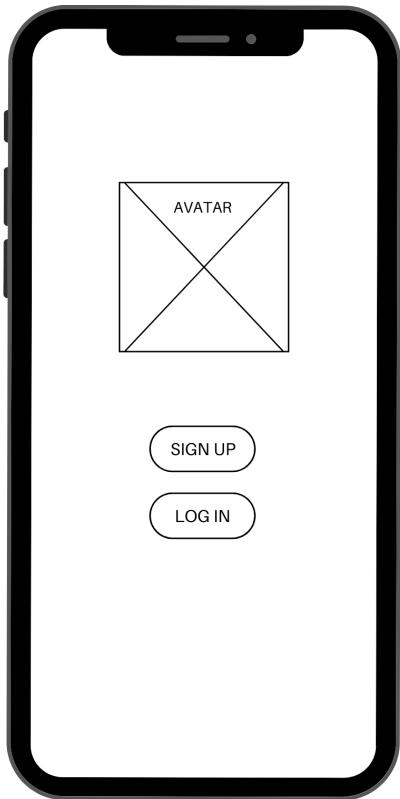
ATTENDANCE KEWUH UP THE INDIVIDUALS

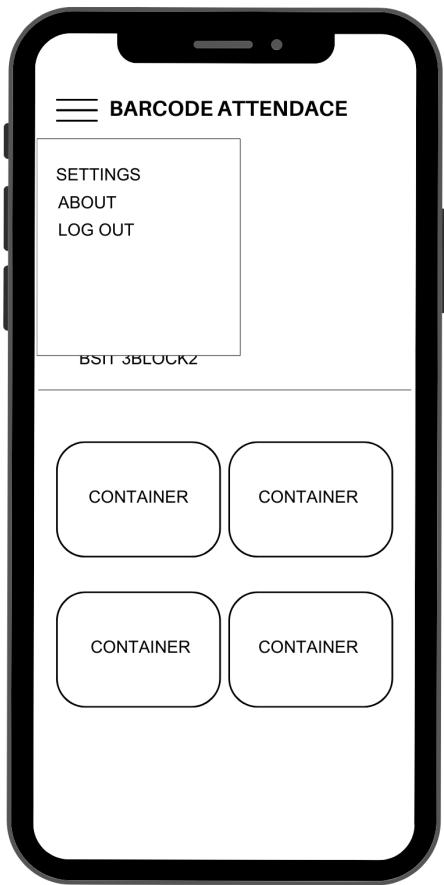
7. Record Display:

ID NUMBER	DATE	TIME IN	TIME OUT
2021-8-0377	01-07-23	-	-
2021-8-0377	09-25-23	7:00am	11:30pm
2021-8-0377	09-25-23	1:30pm	-
2021-8-0377	10-26-23	8:00am	-
2021-8-0377	11-13-23	-	5:00pm

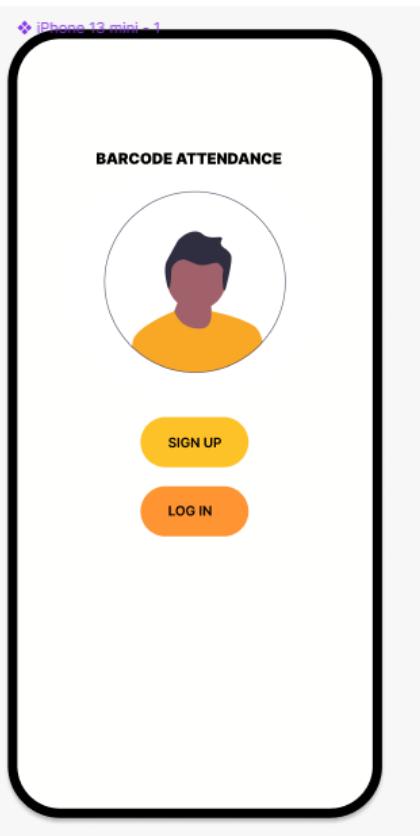
8. Profile Display:

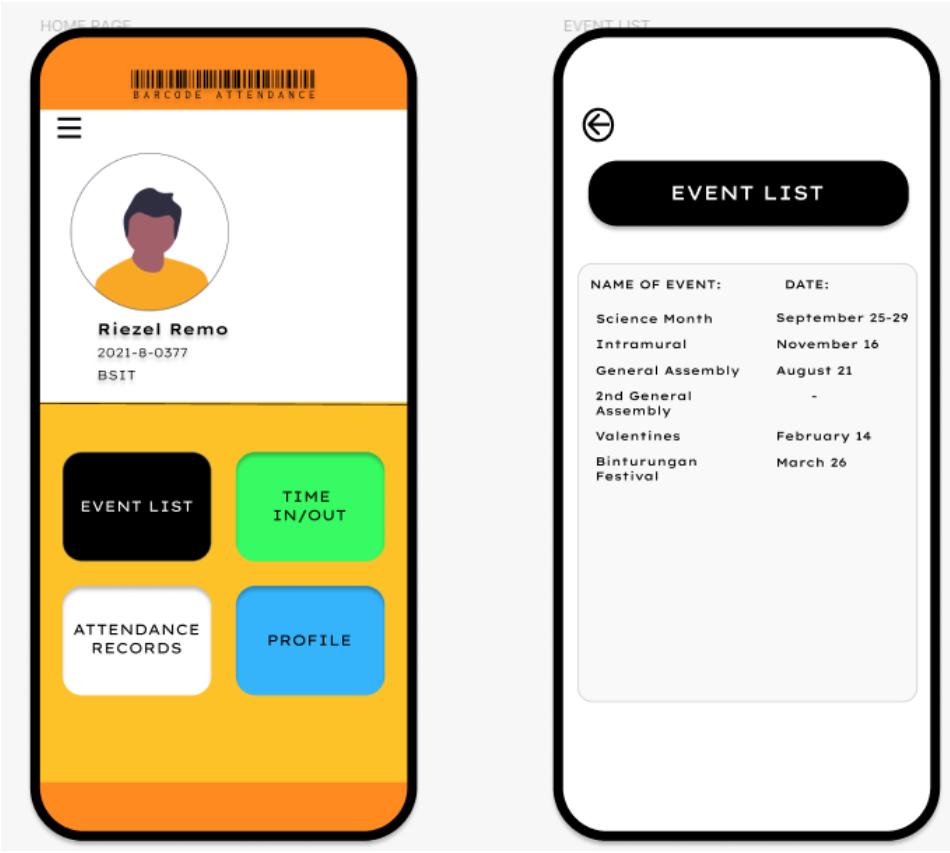
Wireframes





Visual UI Design





I chose orange and yellow colors to represent our school in my app's design. These colors can evoke a sense of school spirit and identity. A simple and intuitive design is essential for a student attendance app. Here are some design choices and explanations

Color Scheme: Orange and Yellow: These colors are not only symbolic of your school but can also be visually appealing. Yellow can represent positivity and energy, while orange can signify enthusiasm and creativity.

Button Design: Simplicity: Simple, well-defined buttons make it easy for students to understand how to use the app. They should be easily tappable and recognizable.

User Flow: Home Screen: The initial screen could have a welcoming school logo in your chosen colors, along with two clear buttons for 'Barcode Attendance' and 'View Attendance History.'

Barcode Attendance Screen: This screen should feature a large, prominent barcode scanner, perhaps with a subtle orange or yellow frame. It should be self-explanatory and easy for students to interact with.

Attendance Records: When a student wants to check their attendance records, a chronological list can be displayed, with each entry indicating the present, absent and no time in and out.

Details: Icons: Consider using icons for functions like 'Menu' to make it visually clear.

My design choice of a simple, visually intuitive, and barcode-based attendance application directly addresses the pain points I mentioned. It saves time for students, eliminates the need for physical queues, and ensures easy access to the attendance feature, making the process more efficient and user-friendly.

Time-Consuming

By using a simple and intuitive design with a clear 'Barcode Attendance' button on the home screen, students can quickly access the attendance feature. This eliminates the need for manual time ins, which can be time-consuming. Scanning a barcode is a fast and efficient process.

Queue and Congestion

The barcode attendance system allows students to time in individually without forming physical queues or causing congestion in front of a physical attendance counter. This digital solution reduces the physical presence required for attendance, which can be especially beneficial in situations where large numbers of students need to check in simultaneously.

Difficulty in Access

The prominent 'Barcode Attendance' button, along with the use of recognizable icons, makes it easy for students to access the attendance feature. The design

emphasizes clarity and simplicity, which reduces any potential difficulty in navigating the app.