

# Project Proposal

POLYQ APP

**PRESENTED BY**

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JUNE 2025

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# 1. APP NAME AND RATIONALE

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## Name of the APP: PolyQ

Rationale: "PolyQ" is a short and memorable name that combines "Polytechnic" and "Queue." It reflects the app's main function—helping polytechnic students manage their canteen queue experience. The name is modern, clear, and easy to recall, appealing to the student demographic.



## 2. BACKGROUND & CONCEPT SELECTION

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### Research on Current Situation

**a. Focused COVID-19-related solution:**

Queue System

**b. Reason for choosing this concept:** During the COVID 19, reducing crowding in queues became essential. Many F&B outlets adopted digital queue systems to minimize close contact and improve efficiency. This concept remains relevant as students still experience long wait times in crowded school canteens.

**c. Post-COVID-19 benefits:**

- Reduces crowding and improves safety
- Saves time and enhances daily convenience for students

**d. Additional information:** Polytechnic students in Singapore often face limited lunch periods and crowded dining spaces. A digital queue and crowd-level tracking system would directly improve their experience.

# 3. PURPOSE AND GOALS FOR THE APP

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## Purpose & Target Audience

### **a. Summary and rationale:**

PolyQ enhances queue management through real-time wait times, canteen crowd levels, and store-specific details. It retains its value by optimizing lunch planning, even post-COVID-19.

### **b. Target audience:**

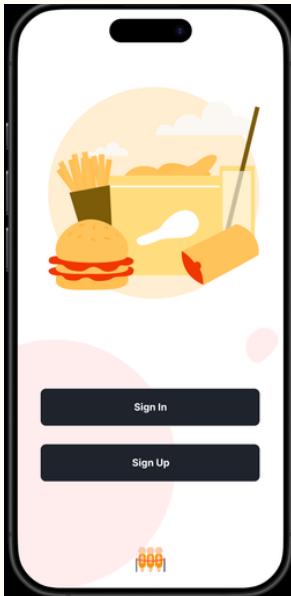
Polytechnic students in Singapore. The app helps them:

- Avoid long queues
- Choose less crowded canteens
- Get timely updates on stalls wait times

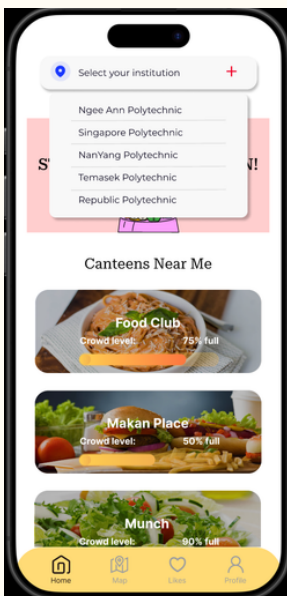


# 4. APP FEATURES OVERVIEW

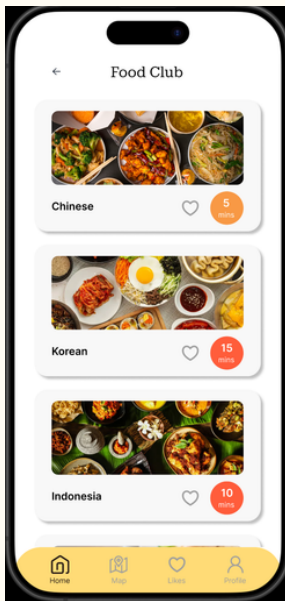
## Mobile



**Login/Sign up Page:**  
Allow users to login or sign up.

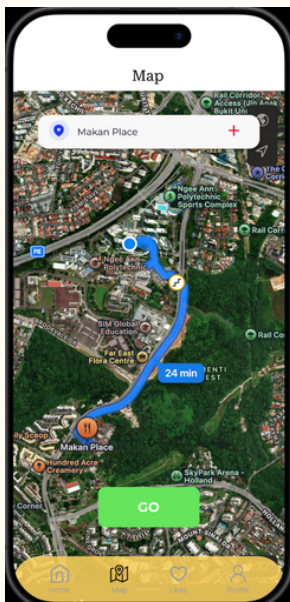


**School & Canteen Selection:**  
Users can select their polytechnic and browse available canteens.



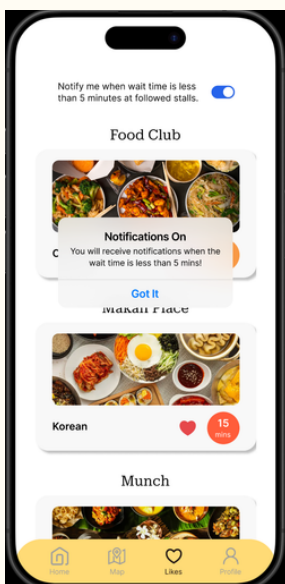
## Crowd Level and Wait Time Tracking:

View how crowded each canteen is and the queue length at each food stall.



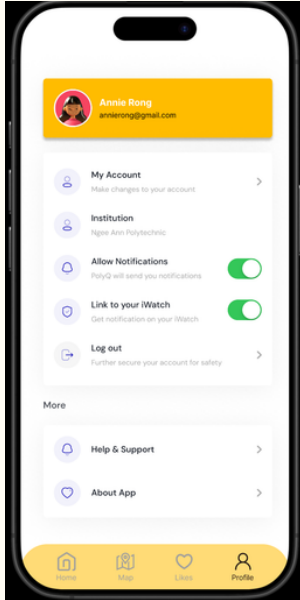
## Canteen Map:

Helps the students navigate canteen locations.

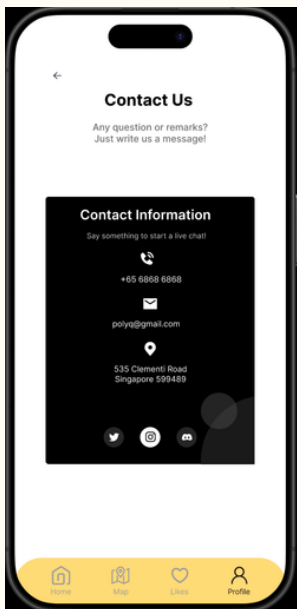


## Follow Canteens & Notifications:

Follow the canteens and access easily, also get notifications when the queue is short.



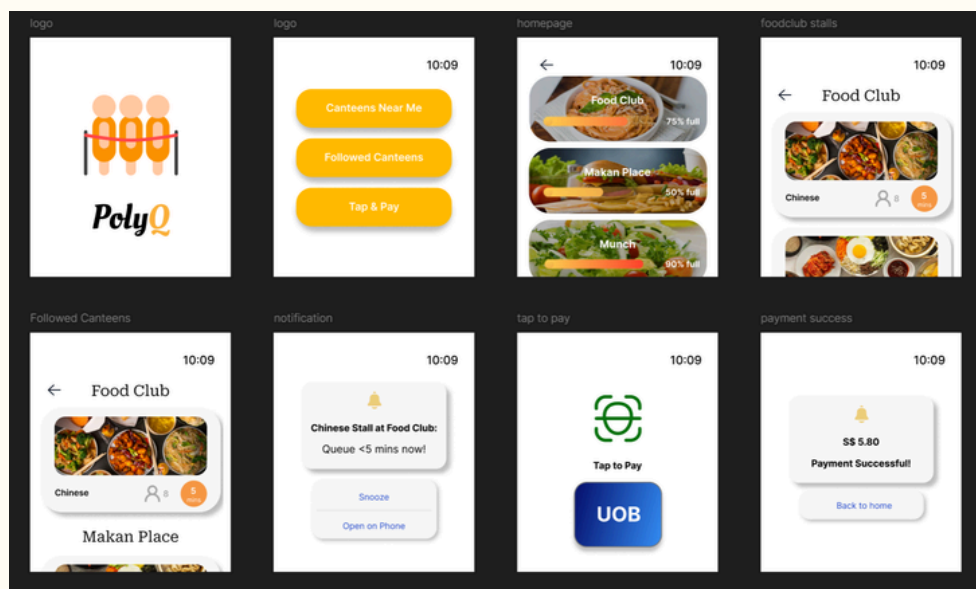
**Profile Page:**  
Set school, manage personal information, and log out feature.



**Contact Page:**  
Provides help and feedback options.

# 4. APP FEATURES OVERVIEW

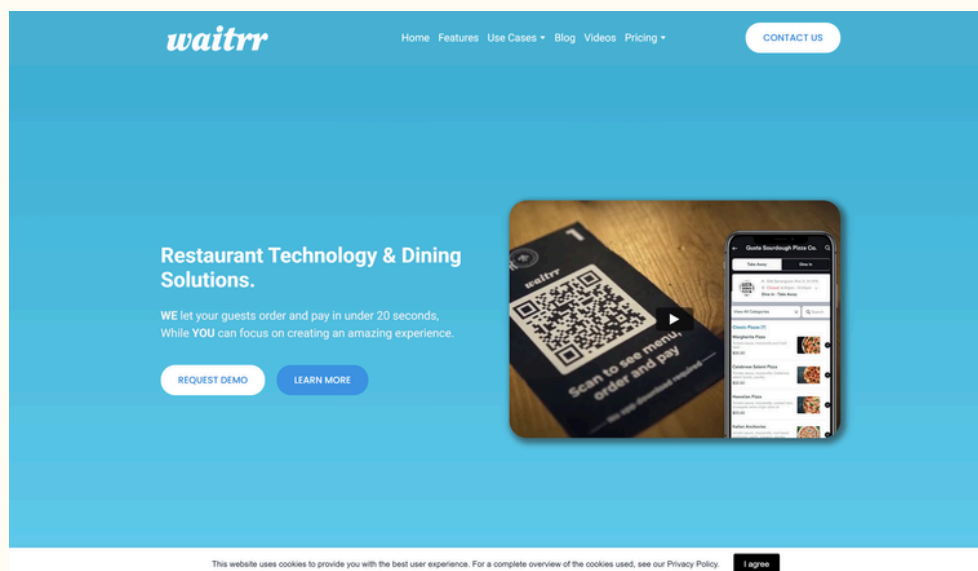
## Smartwatch



- **Canteens near me:** Quick view of the crowd level of each canteen and the wait times of each stall.
- **Followed canteens:** Quick access to followed canteens.
- **Notifications:** Get notification on smartwatch when the queue time is under 5 minutes for followed stalls.
- **Tap to Pay:** Users can pay on their smartwatch.

# 5. COMPETITIVE ANALYSIS

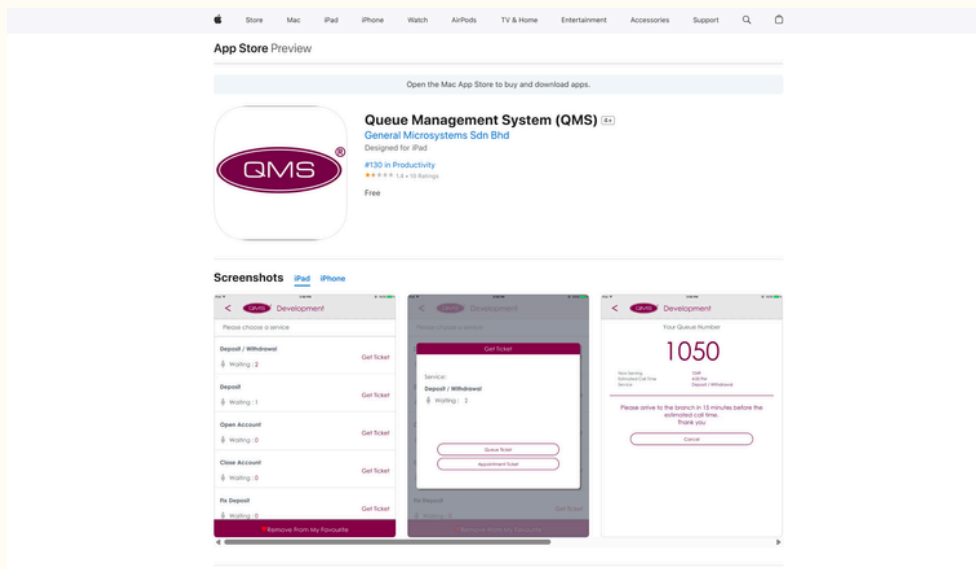
## Waitrr



Waitrr is a mobile ordering and payment platform widely used in Singapore's F&B industry. It allows customers to browse menus, place orders, and make payments directly from their smartphones, either for dine-in or takeaway. By facilitating pre-ordering and contactless transactions, Waitrr significantly reduces queue times and enhances the dining experience. The app also integrates with loyalty programs and POS systems, providing added value to both customers and businesses.

# 5. COMPETITIVE ANALYSIS

## QMS



The QMS App allows users to obtain virtual queue tickets for various service providers in Singapore. Before visiting a location, users can check how busy it is and secure a queue number remotely. The app provides estimated wait times and real-time updates, enabling users to manage their time effectively without physically waiting in line. This system is particularly beneficial in retail and service industries where managing customer flow is crucial.

# 5. COMPETITIVE ANALYSIS

## QueueBee



QueueBee is a comprehensive queue management system utilized across various sectors in Singapore, including healthcare, finance, education, and retail. It offers both physical and virtual queue solutions, allowing customers to check in via QR codes or kiosks and receive real-time updates on their queue status. Businesses benefit from features like online appointment scheduling, customer feedback collection, and detailed analytics dashboards. QueueBee's mobile app enhances user convenience by enabling remote queue monitoring and notifications.

## 6. USER NEEDS & OBJECTIVES

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1. A student wants to check which canteen is less crowded to decide where to eat lunch quickly. The app helps by showing real-time crowd data for each canteen.
2. A user wants to receive notifications when their favorite food stall has a short wait time. By following stalls and enabling notifications, they can avoid long lines and eat more efficiently.

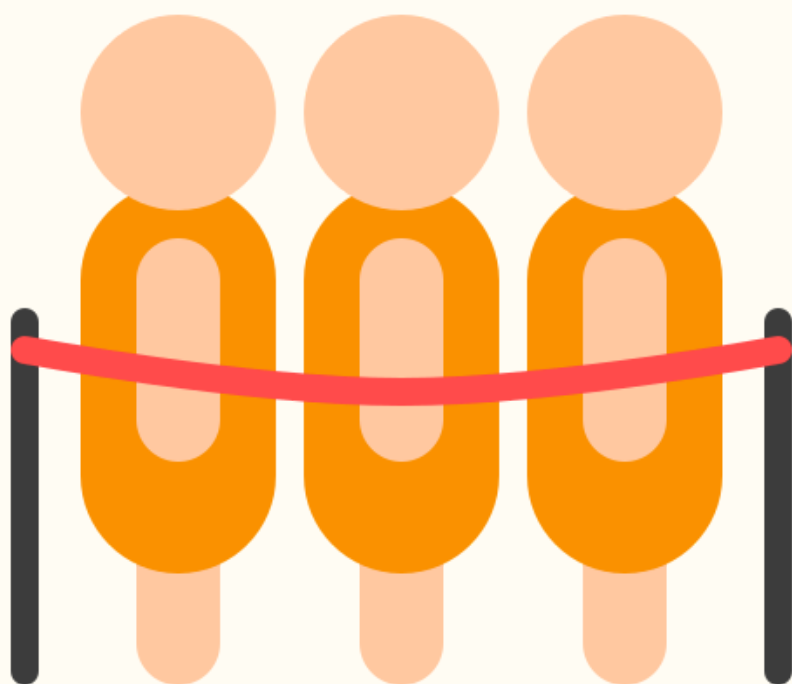


# 7. SUPPORTING RESEARCH & REFERENCES

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- Ministry of Health Singapore. (2023). COVID-19 Updates and DORSCON Framework. <https://www.moh.gov.sg/covid-19>
- The Straits Times. (2022, October 11). Why queue systems are here to stay, even after COVID-19. <https://www.straitstimes.com>
- CNA. (2023, February 5). Singapore F&B outlets go digital: Queue apps and contactless ordering on the rise. <https://www.channelnewsasia.com>
- QueueBee. (n.d.). QueueBee App Features and Solutions. <https://queuebee.com.sg>
- Waitrr. (n.d.). Order Ahead, Skip the Queue. <https://waitrr.com>
- QMS Singapore. (n.d.). Smart Queue Management Systems for Businesses. <https://qms.com.sg>
- User interviews conducted with Ngee Ann Polytechnic students in May 2025.





# Persona

POLYQ APP

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02	Empathy Map
03	Story Board



# 8. POTENTIAL USERS

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## POTENTIAL USER 1



Name: Yi Ting

Age: 18

School: School of ICT

Year: Year 2

Daily Routine: Always eats at noon after class; prefers chicken rice but dislikes the long queues at Food Club. Uses her phone frequently and is open to tech solutions to save time.

## POTENTIAL USER 2



Name: Ryan

Age: 17

School: School of Engineering

Year: Year 1

Daily Routine: Has irregular lunch breaks due to project meetings. Often skips meals because of queue length. Likes apps that help her plan his day better.

## POTENTIAL USER 3



Name: Mayla

Age: 19

School: School of HMIS

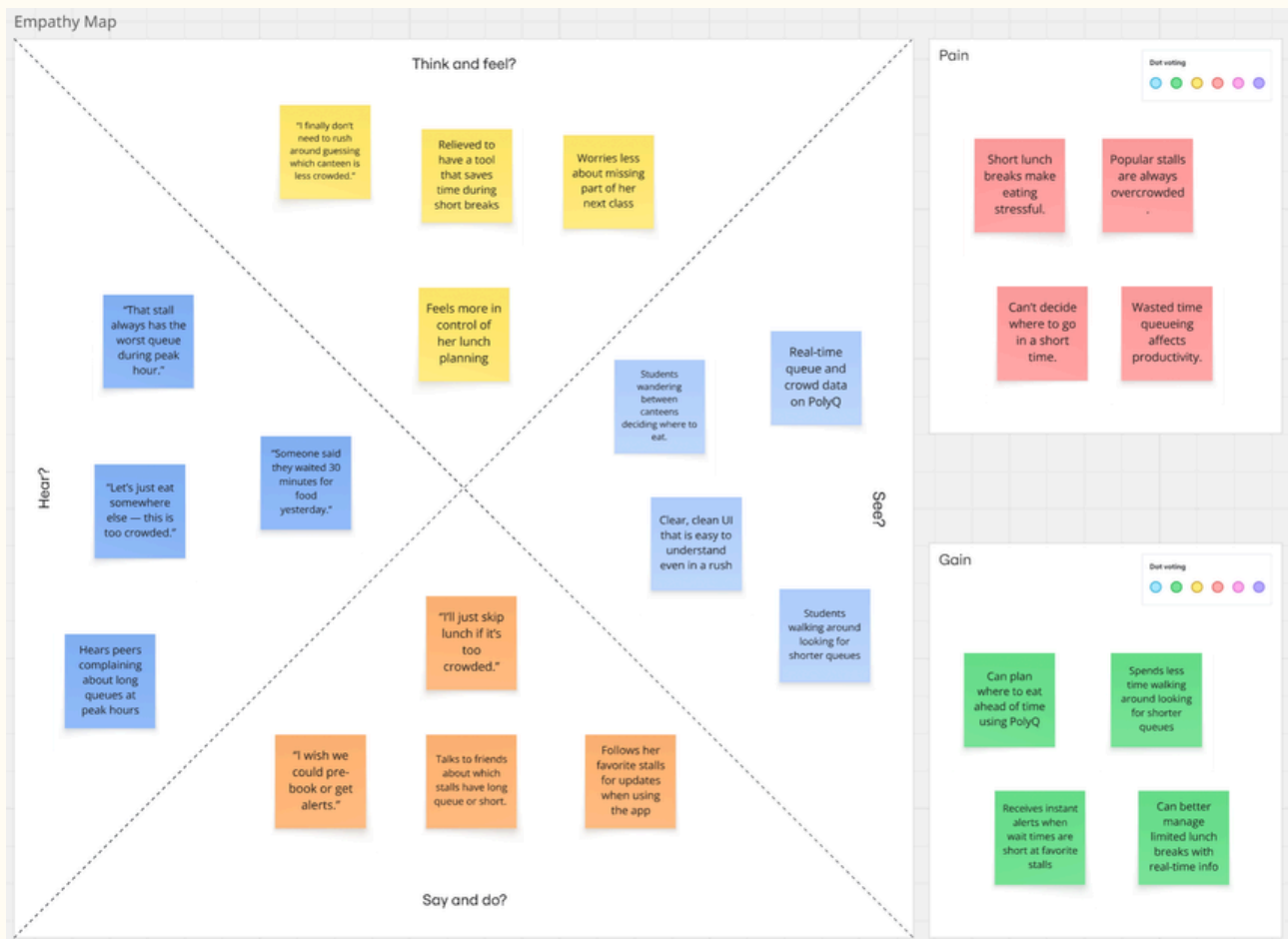
Year: Year 2

Daily Routine: Prefers fast, no-fuss meals. Uses food delivery apps but prefers campus food when lines are short. Would benefit from real-time updates to avoid wasted time.



# 9. EMPATHY MAP

## POTENTIAL USER: YI TING



Link: [https://miro.com/app/board/uXjVItEWIt0=](https://miro.com/app/board/uXjVItEWIt0=/)

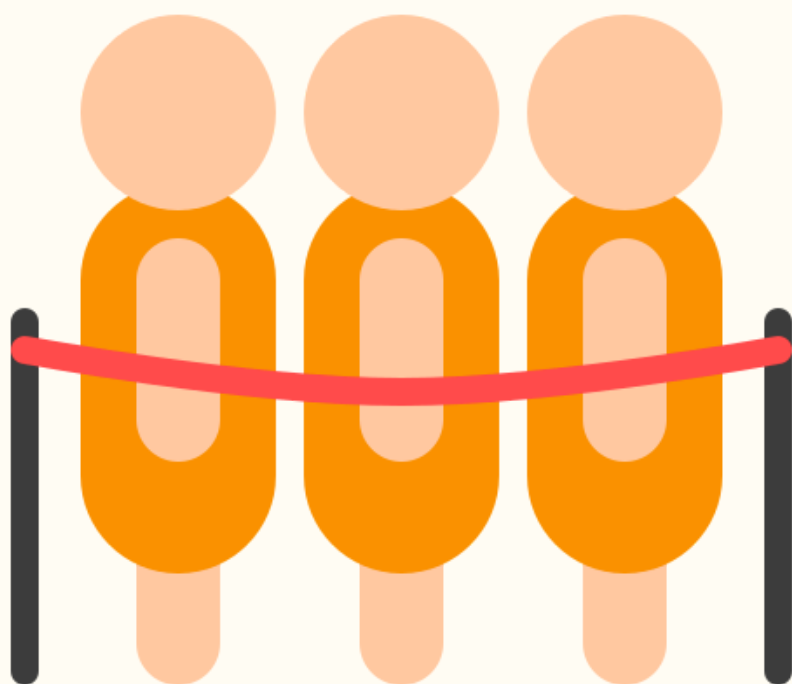


# 10. STORY BOARD

## A DAY IN THE LIFE OF YI TING

<p>7am: Wake up</p>  <p>Wakes up and gets ready for another busy school day.</p>	<p>9am: Arrives at Ngee Ann Polytechnic</p>  <p>Heads to her first class, slightly tired but ready to start.</p>	<p>11:30am: Getting Hungry</p>  <p>Starts thinking about lunch — wonders what to eat and which canteen might be less crowded.</p>
<p>12:00 PM : Lunch Break Starts</p>  <p>Heads out to look for food but isn't sure where to go. All the canteens seem packed.</p>	<p>12:05 PM: Wanders Around</p>  <p>Walks between two canteens trying to guess which has the shortest queue.</p>	<p>12:15 PM: Chooses a Stall</p>  <p>Finally chooses a stall but is stuck in a long queue under the hot weather or noisy crowd.</p>
<p>12:40pm: Gets Her Food</p>  <p>She finally gets her food, but there are no seats. Ends up eating quickly at a random spot.</p>	<p>1pm: Returns to Class</p>  <p>Returns late or just in time, feeling stressed and a bit unsatisfied with lunch.</p>	<p>4pm: Ends Afternoon Class</p>  <p>Thinks about how frustrating lunch was. Wonders if there's a better way to plan.</p>
<p>5:30pm: Arrives Home and Has Dinner</p>  <p>Returns home after her last class of the day. She eats dinner with her family and relaxes a bit.</p>	<p>7pm: Studies, Watches TV and Scrolls on Her Phone</p>  <p>She revises for upcoming quizzes and scrolls through social media during breaks.</p>	<p>12:15 PM – Goes to Sleep</p>  <p>Tired from a long day, gets ready for bed.</p>

Good slot for app usage: Right before or during lunch break — 11:45 AM to 12:30 PM



# Prototypes

POLYQ APP

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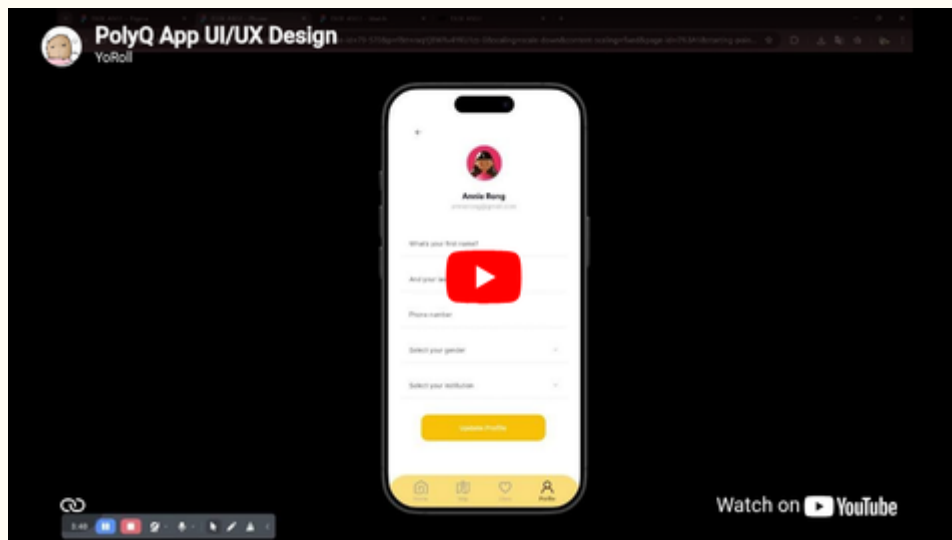
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# FIGMA LINK

[https://www.figma.com/design/tkUiBoiwhVS8rTo8GzAWjk/DUX\\_ASG1?node-id=0-1&t=aX7L1UgwlQqL2gnE-1](https://www.figma.com/design/tkUiBoiwhVS8rTo8GzAWjk/DUX_ASG1?node-id=0-1&t=aX7L1UgwlQqL2gnE-1)

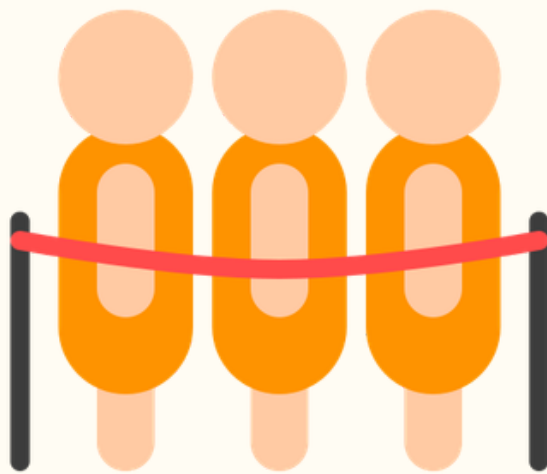
# DEMO VIDEO



[https://youtu.be/22KM6iilRKc?si=MVGB12FN1\\_BN7RF7](https://youtu.be/22KM6iilRKc?si=MVGB12FN1_BN7RF7)



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