

CS Project Proposal

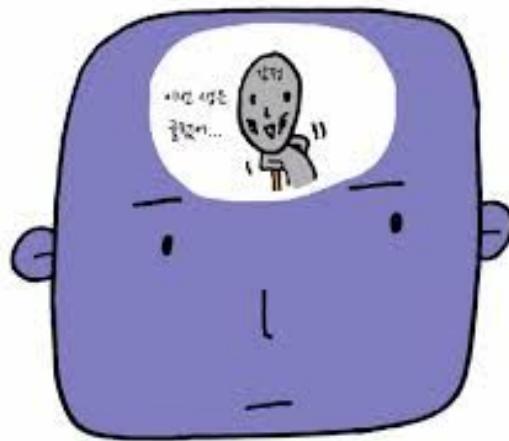
# #team Reflection ONE'S EMOTION

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Keon Lee

Nyoungwoo Lee

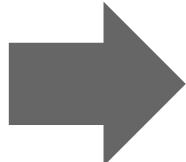
# Why is Alexithymia dangerous?



**Alexithymia**

Cannot know own emotion well

Cannot express emotion well



Depression



Anorexia



Anxiety disorder



Social phobia

# How many Alexithymic people are there?

## Our Survey (Based on TAS-20)

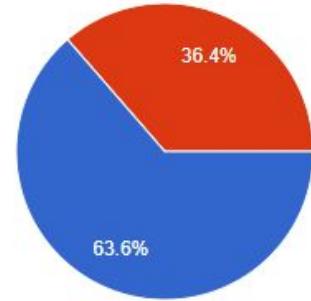
The screenshot shows a survey interface with three parts:

- Part A:** Contains a question in Korean: "(1/23) 내가 어떤 감정을 느끼고 있는지 자주 혼동한다." Below it is a 5-point Likert scale from 0 (전혀 그렇지 않다) to 4 (매우 그렇다). The response "8/23) 무슨 일이 일어났는지는 알기 어렵다." is highlighted.
- Part C:** Contains a question in Korean: "(17/23) 친한 친구에게 어떤 감정을 전달하는 데 어려움을 겪는다." Below it is a 5-point Likert scale from 0 (전혀 그렇지 않다) to 4 (매우 그렇다). The response "8/23) 내 기분(감정)을 적절한 단어로 표현하기가 어렵다." is highlighted.

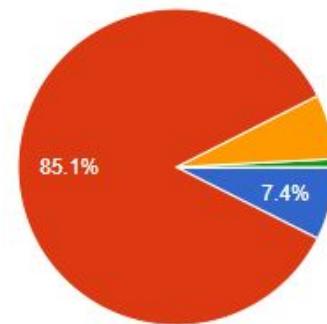
**5 Points Likert Scale**

Q] It is difficult to express my feelings (emotions) with appropriate words.

**Participants :** total 103 people



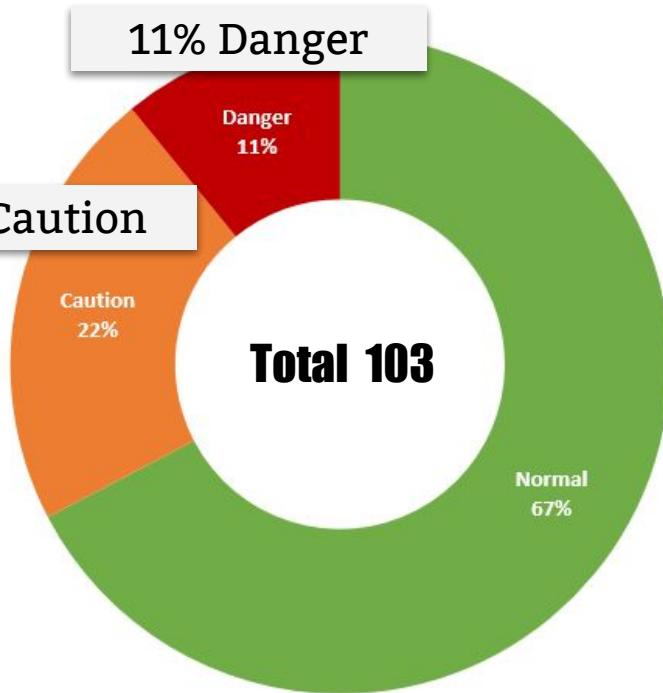
**Sex**  
Female  
Male



**Age**  
10s  
20s  
30s  
etc

# How many Alexithymic people are there?

Result



[ M : Alexithymic score ]

$M \leq 1.9$  : No problem

$1.9 \leq M \leq 2.3$  : Possibility of symptom of somatization

$2.3 \leq M$  : Possibility of psychological disorder

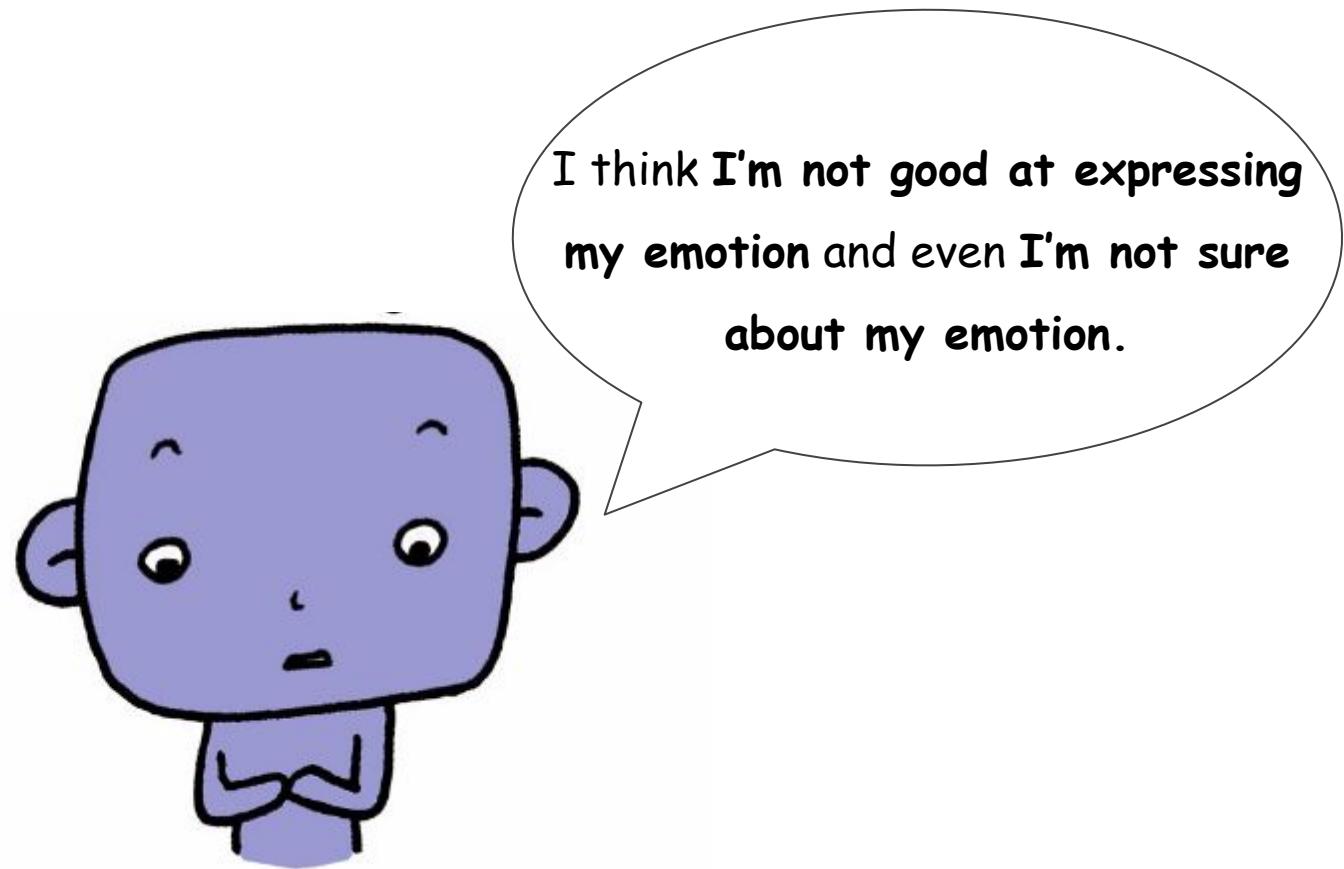
# **Problem definition**

**So many Alexithymic people,  
but they don't recognize it.**

# Our Goal

Even they don't recognize Alexithymia,  
They are going to **be better** through our solution.

# Target user

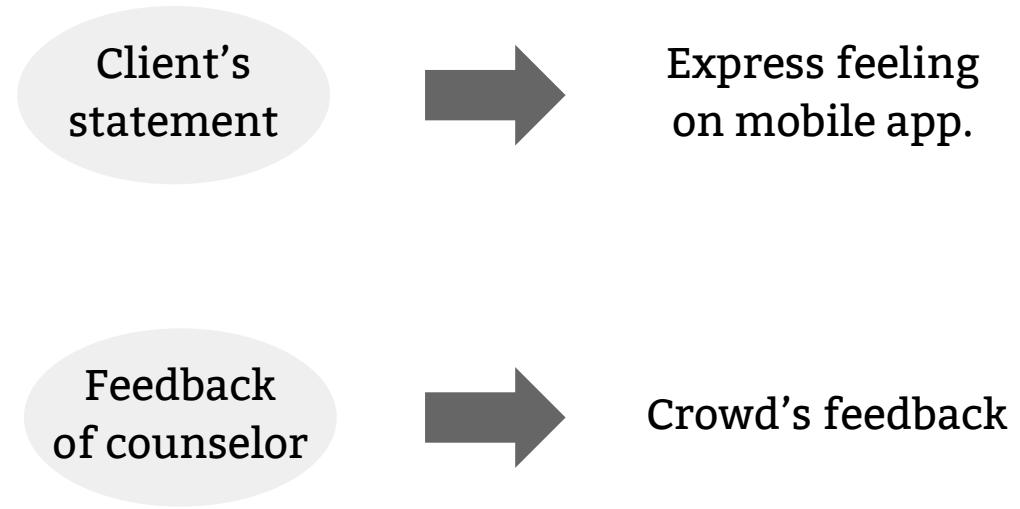


# Solution



## Counseling

Conventional Alexithymia therapy



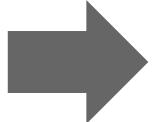
B.-J. Ham, L. Kim, *Alexithymia : Concept and Implications for Treatment*, Sleep Medicine and Psychophysiology, 2002

H. K. Shin, H. T. Won, *A Study on the development of the Korean Alexithymia Scale*, Korean Journal of Clinical Psychology, 1997.

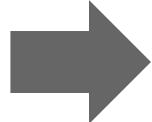
# Solution



Access to  
mobile app



Express feeling  
on chatting interface

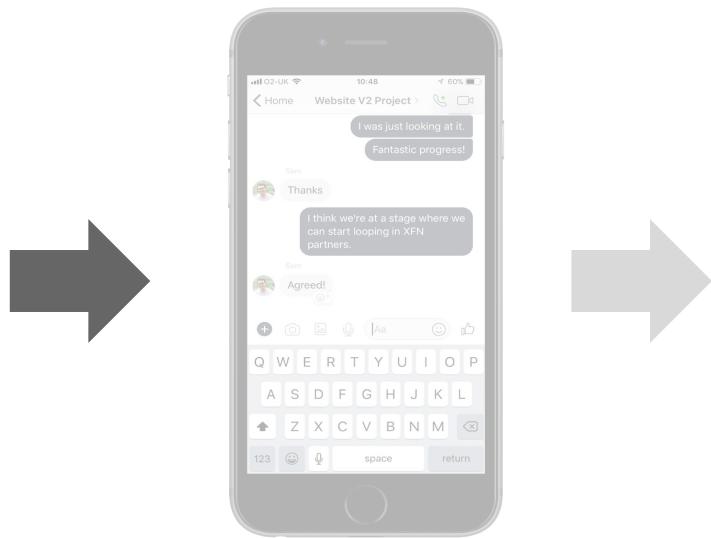


Get crowd's  
feedback

# Design Approach 1: Sympathetic introduction



Access to  
mobile app

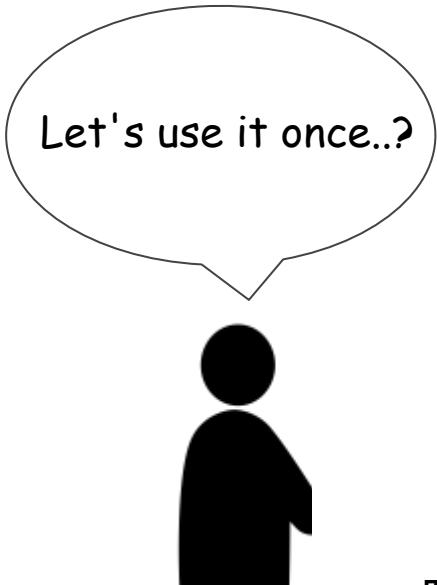


Express feeling  
on chatting interface



Get crowd's  
feedback

# Design Approach 1: Sympathetic introduction



Tell me anything.  
We can hear you!

VS



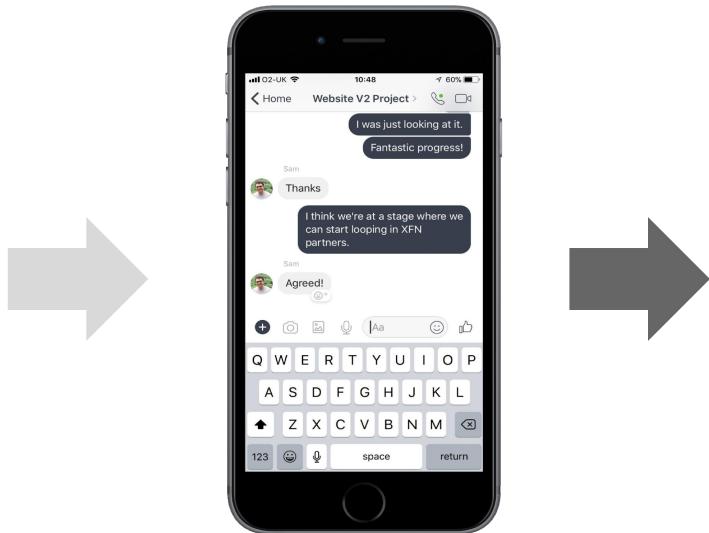
Treat your  
Alexithymia!



# Design Approach 2: Chatting interface



Access to  
mobile app



Express feeling  
on chatting interface



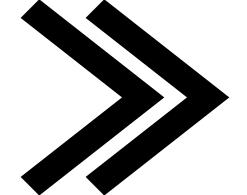
Get crowd's  
feedback

# Design Approach 2: Chatting interface

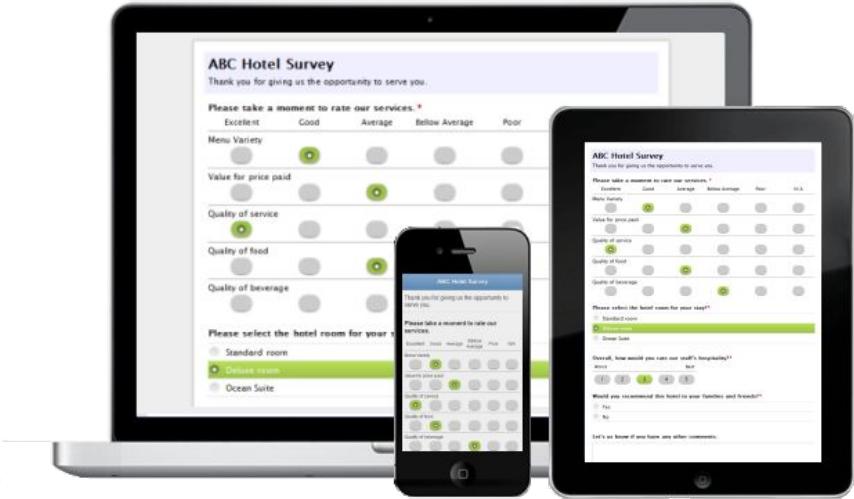
Chatting interface



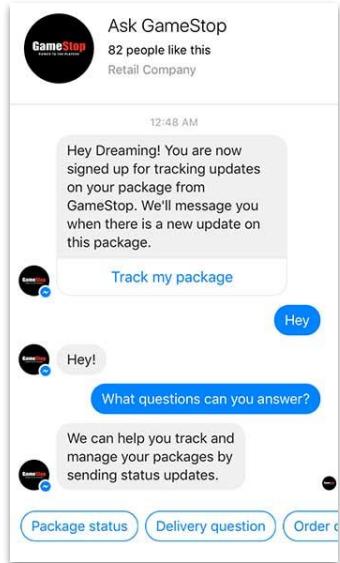
Richness  
Convenience



General form interface



# Design Approach 2: Chatting interface

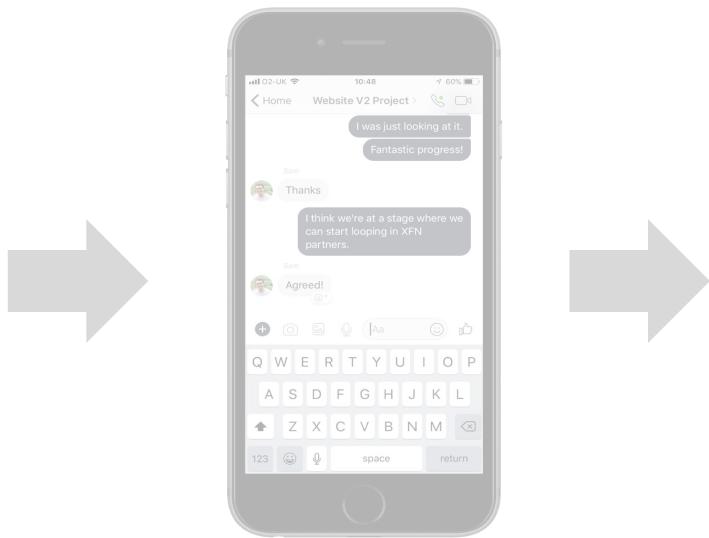


Narvar(a delivery company)'s chatbots see almost 100% response rates from customers

# Design Approach 3: Crowdsourcing



Access to  
mobile app



Express feeling  
on chatting interface



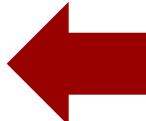
Get crowd's  
feedback

# Design Approach 3: Crowdsourcing



User's chat log

Spread to  
the other users

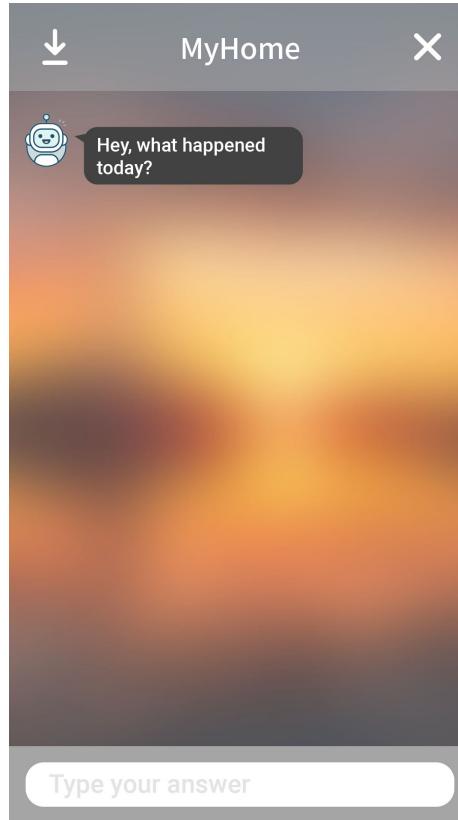


Give a feedback

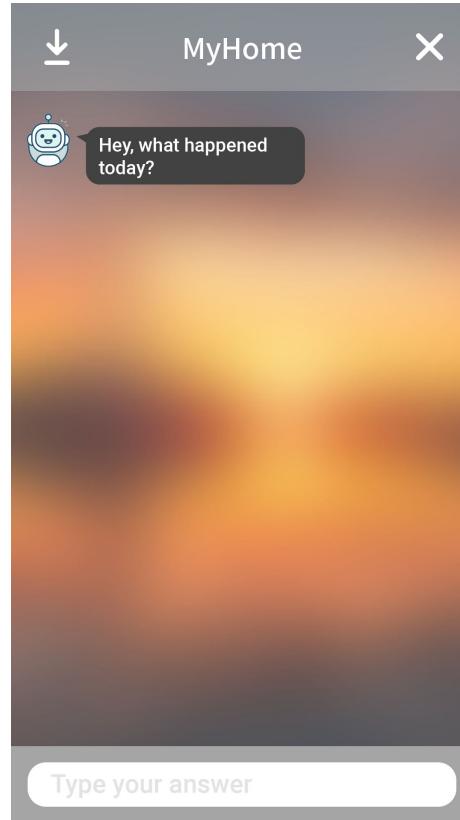
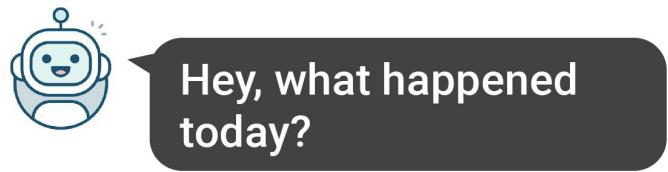


The other user's comments

# Talking with chatbot



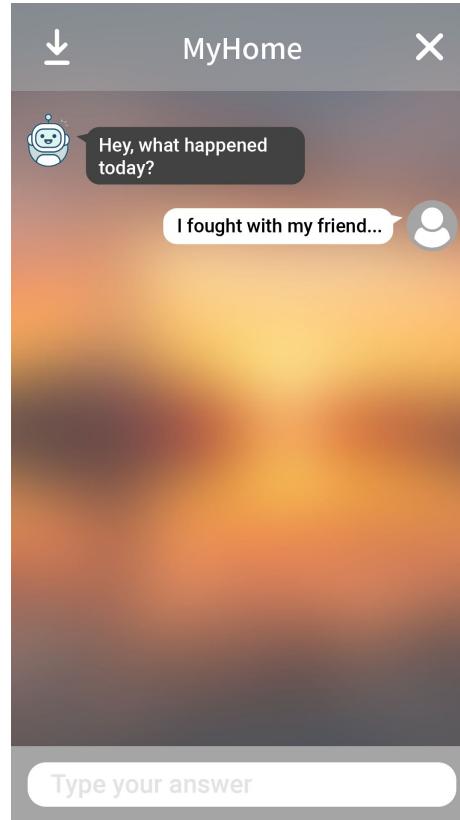
# Talking with chatbot



# Talking with chatbot



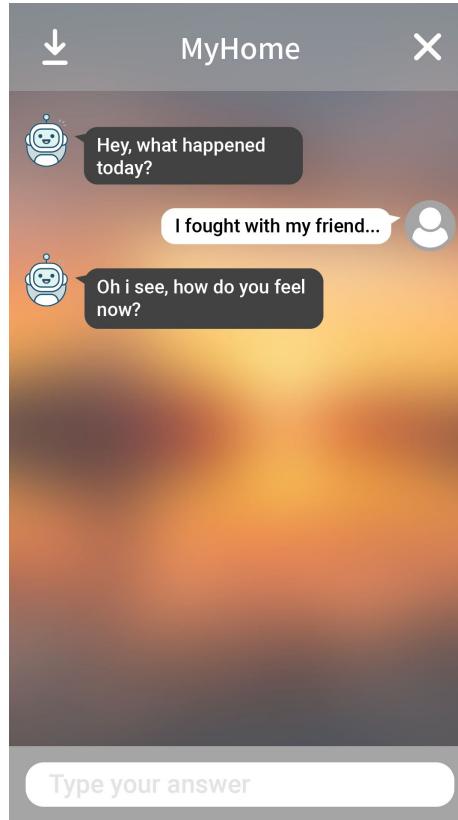
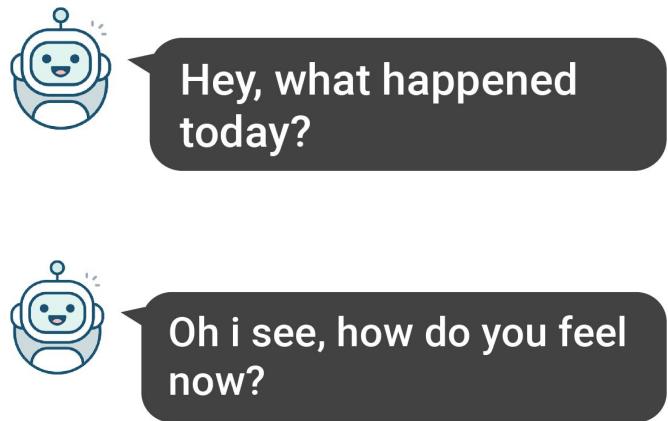
Hey, what happened today?



I fought with my friend...



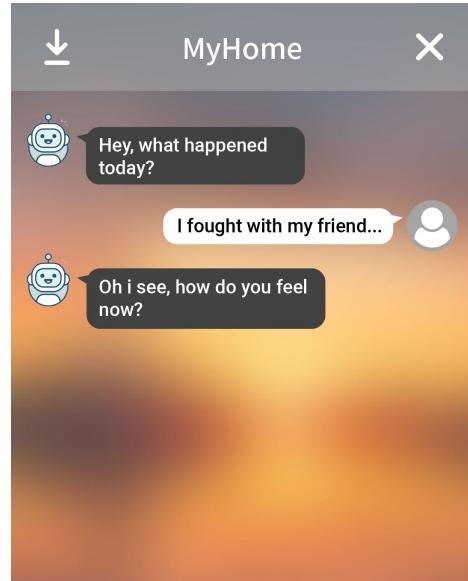
# Talking with chatbot



I fought with my friend...



# Talking with chatbot

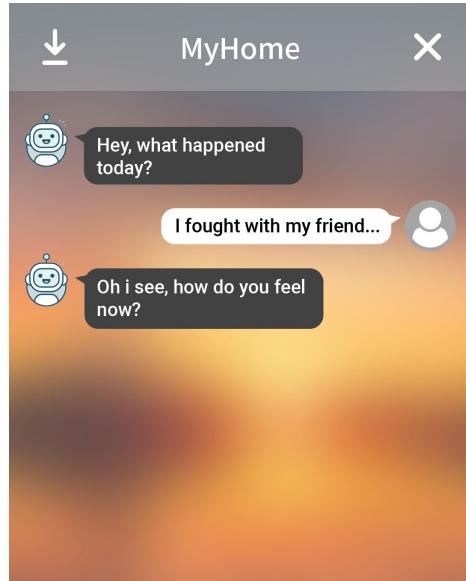


Select your emotion



Type your answer

# Talking with chatbot

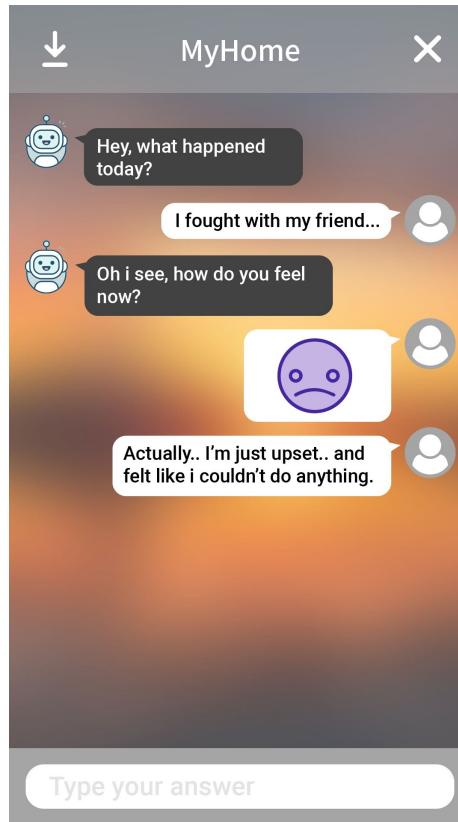


Select your emotion



Type your answer

# Talking with chatbot



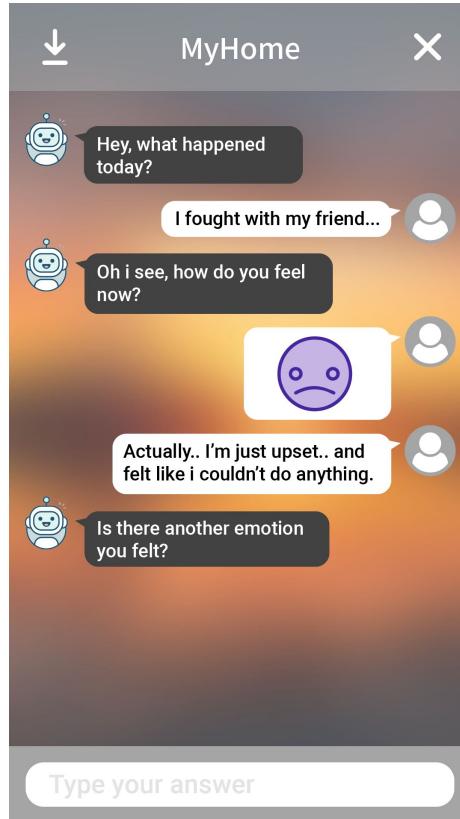
Actually.. I'm just upset.. and  
felt like i couldn't do anything.



# Talking with chatbot



Is there another emotion you felt?



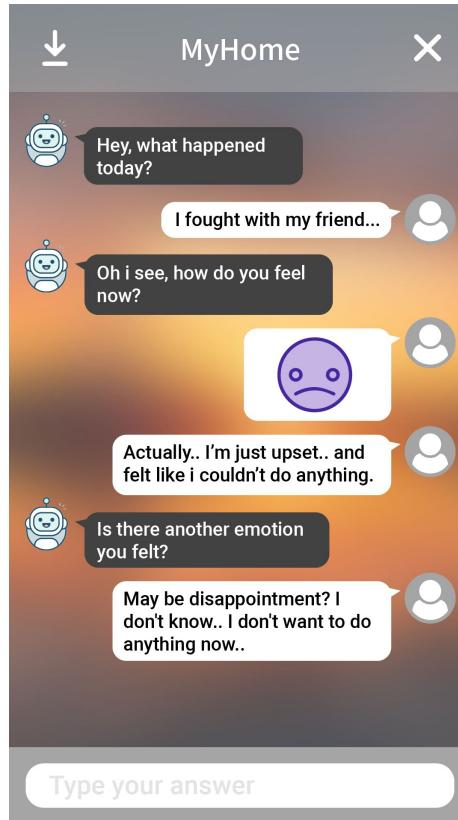
Actually.. I'm just upset.. and  
felt like i couldn't do anything.



# Talking with chatbot



Is there another emotion you felt?



Actually.. I'm just upset.. and felt like i couldn't do anything.



May be disappointment? I don't know.. I don't want to do anything now..



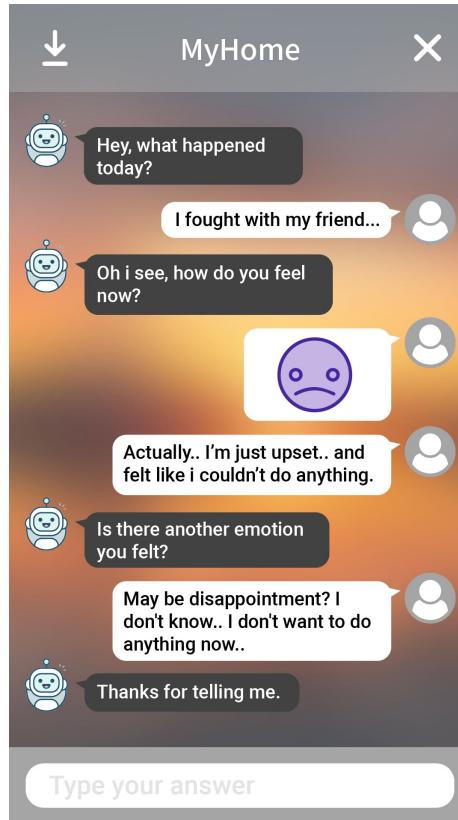
# Talking with chatbot



Is there another emotion you felt?



Thanks for telling me.



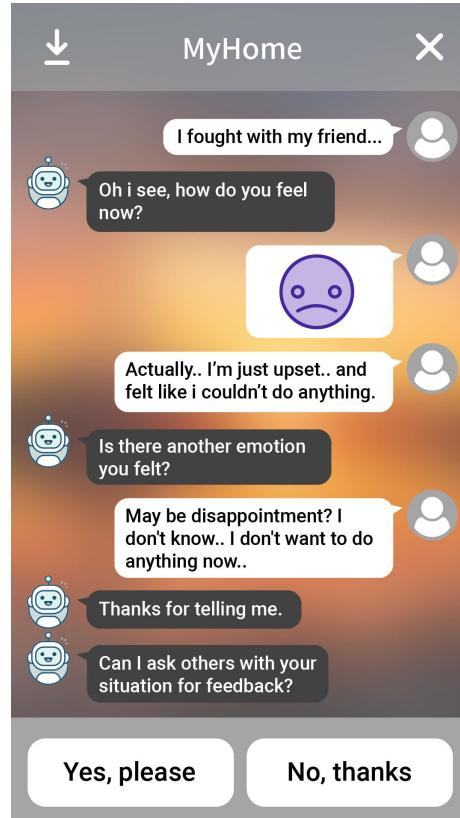
Actually.. I'm just upset.. and felt like i couldn't do anything.

May be disappointment? I don't know.. I don't want to do anything now..

# Talking with chatbot



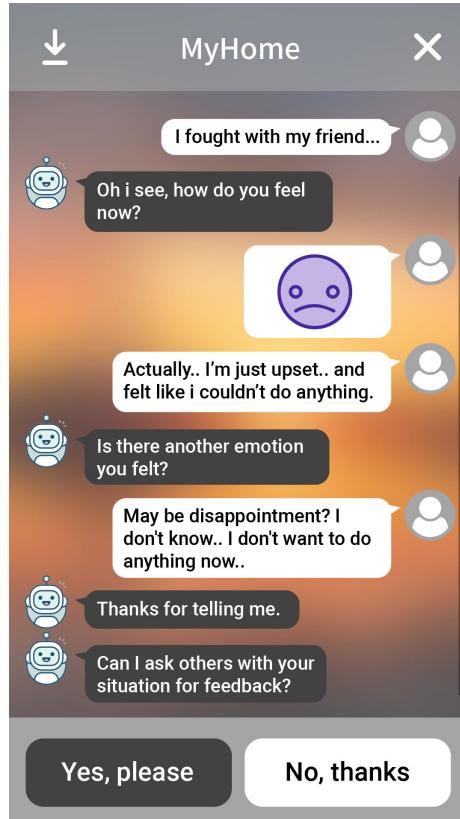
Can I ask others with your situation for feedback?



# Talking with chatbot

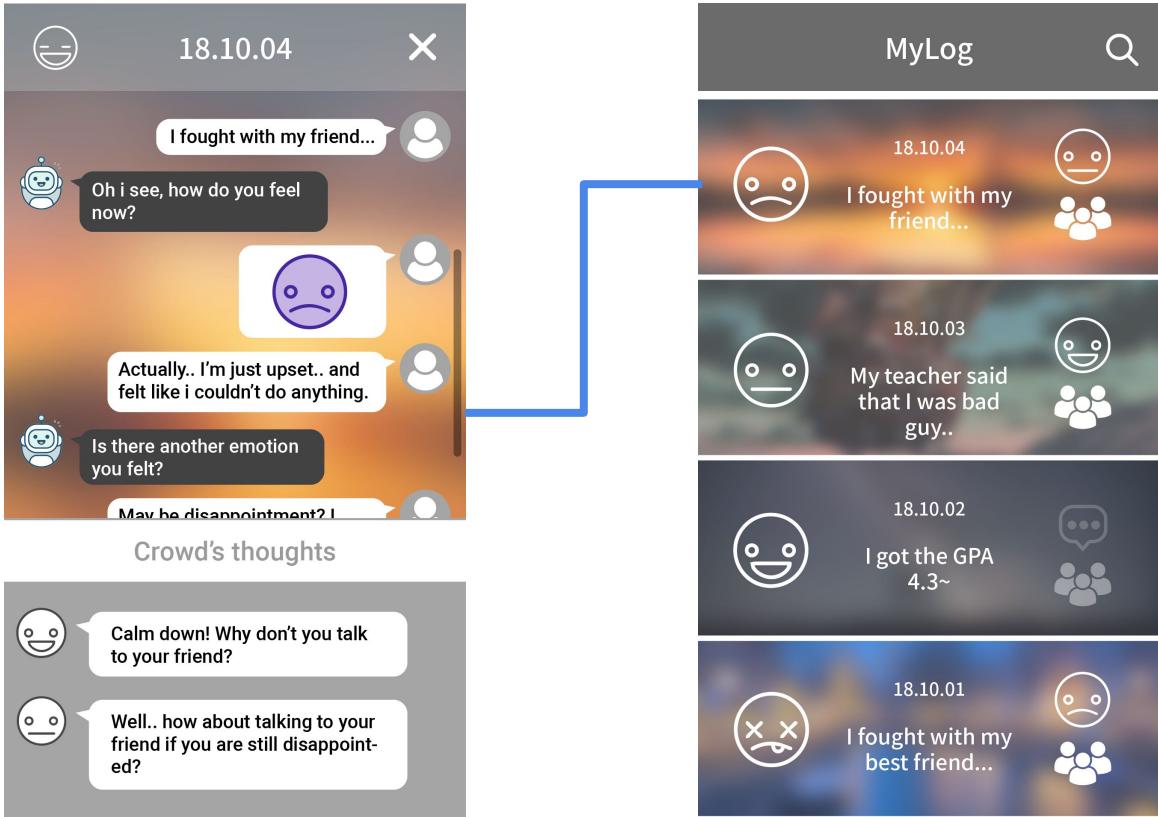


Can I ask others with your situation for feedback?

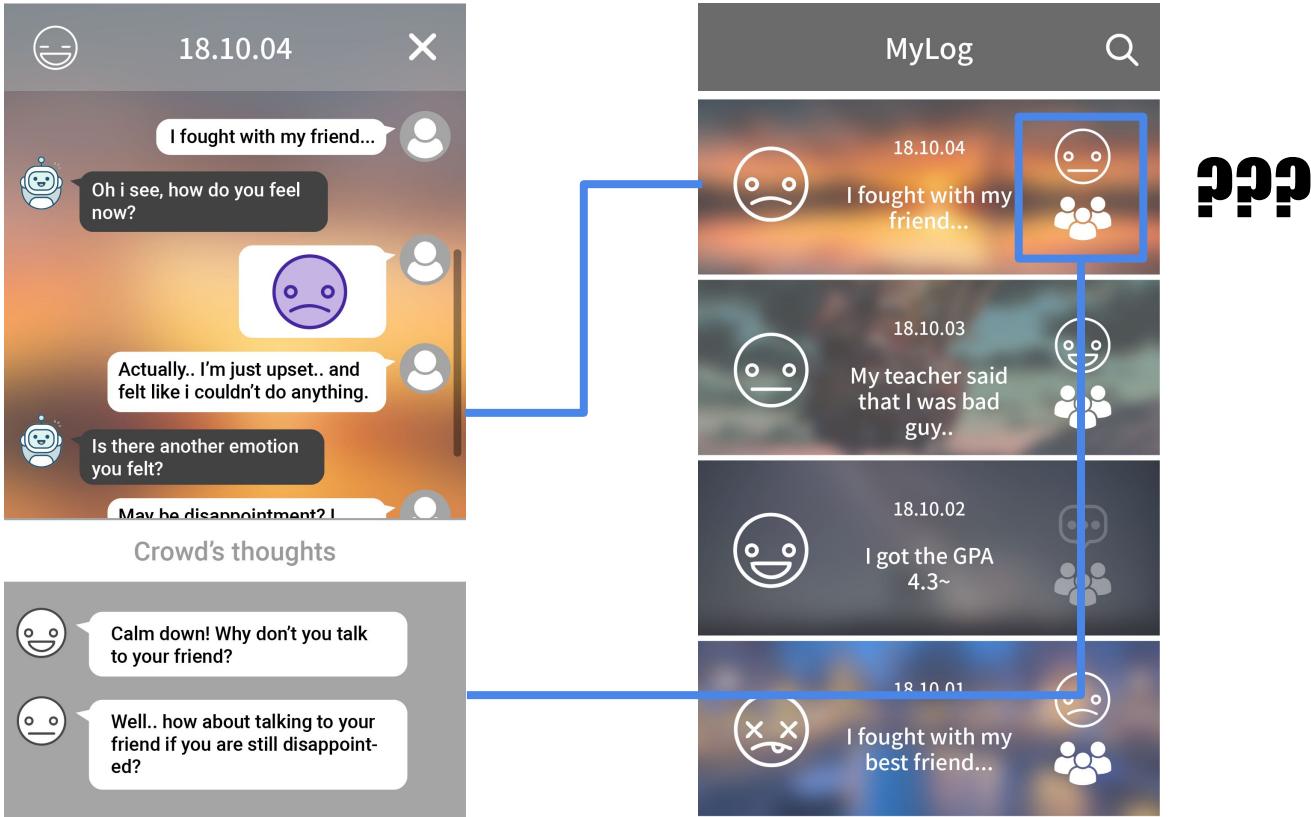


Yes, please

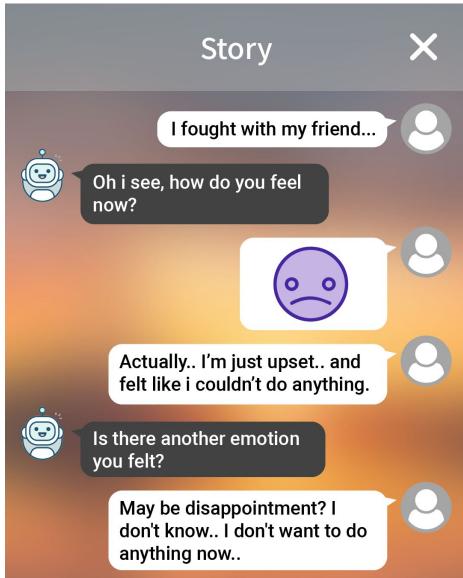
# Chat Timeline



# Chat Timeline



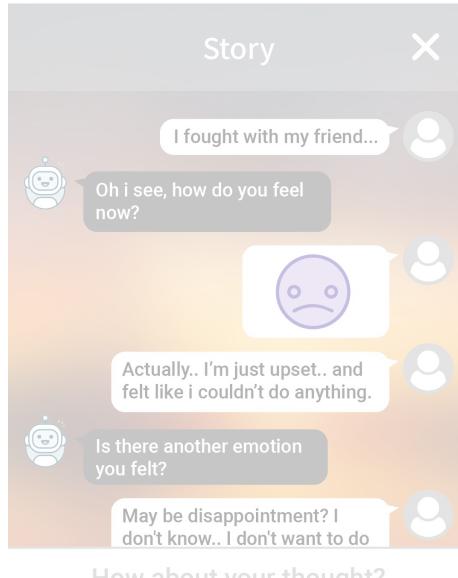
# Crowd's feedback



How about your thought?



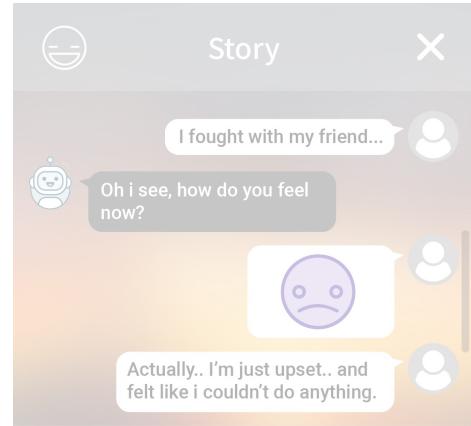
Type and see crowd's thought



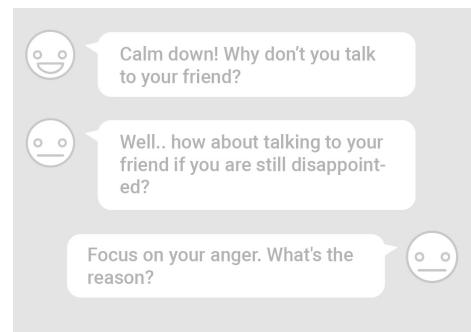
How about your thought?



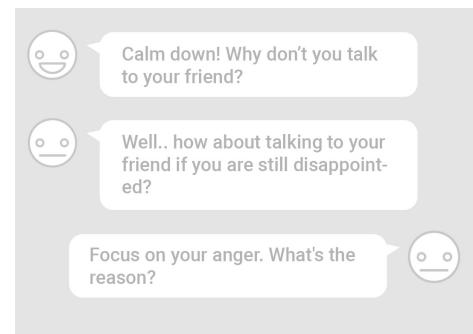
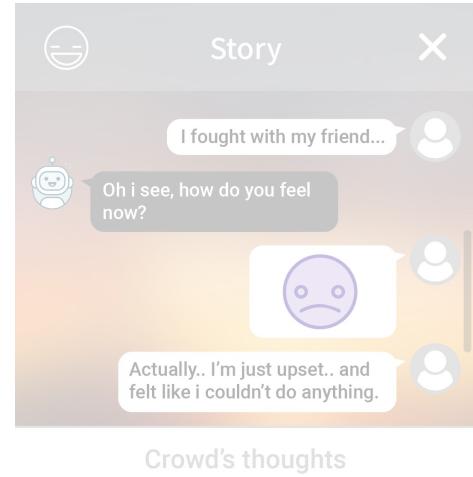
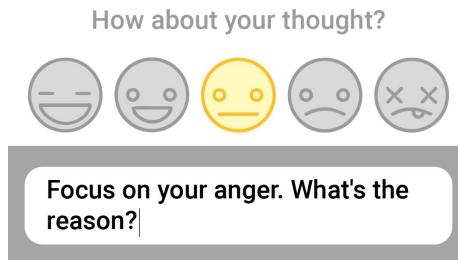
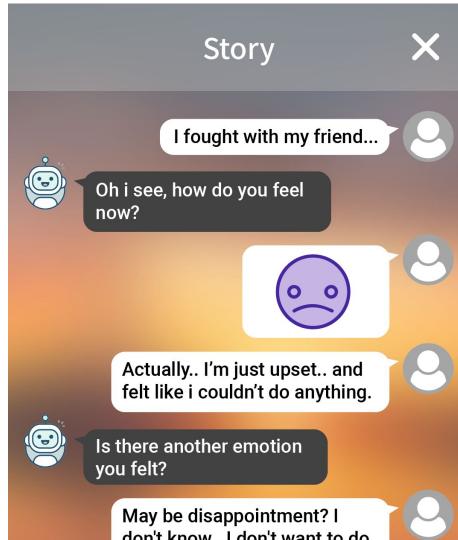
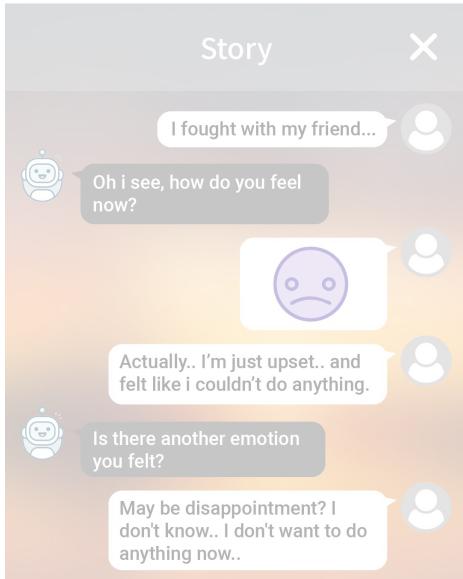
Focus on your anger. What's the reason?



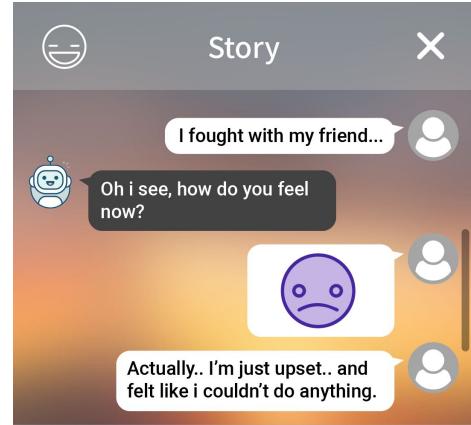
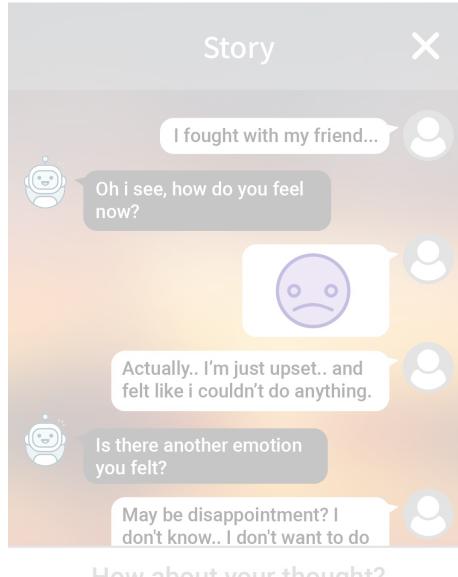
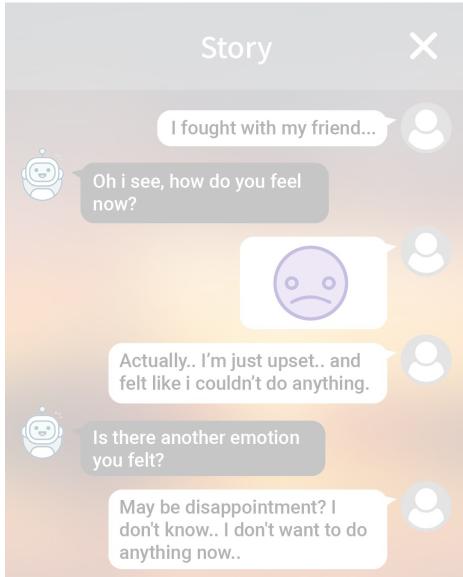
Crowd's thoughts



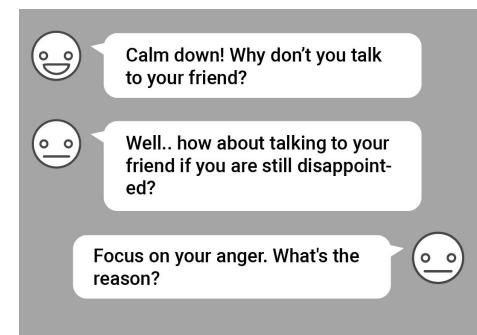
# Crowd's feedback



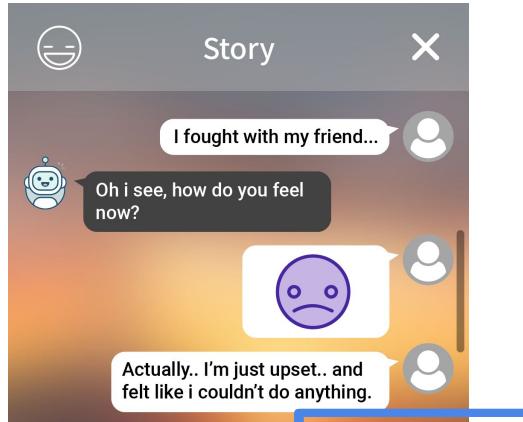
# Crowd's feedback



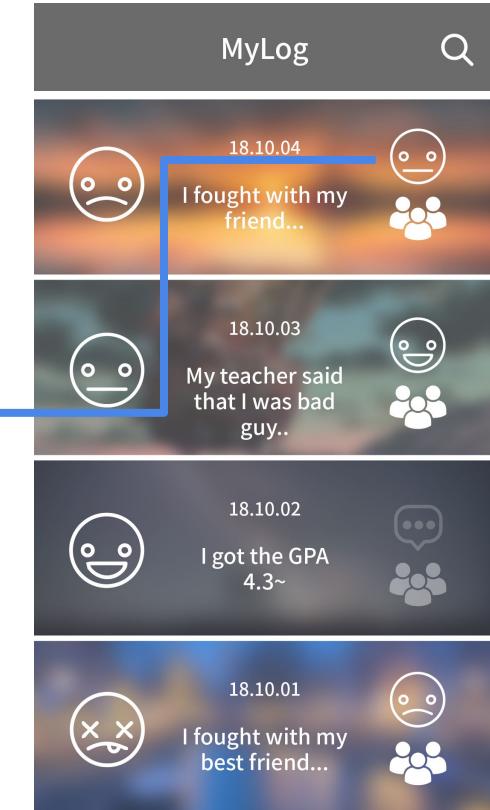
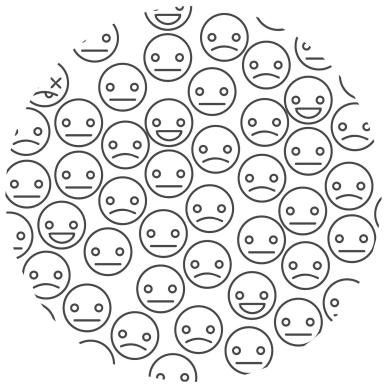
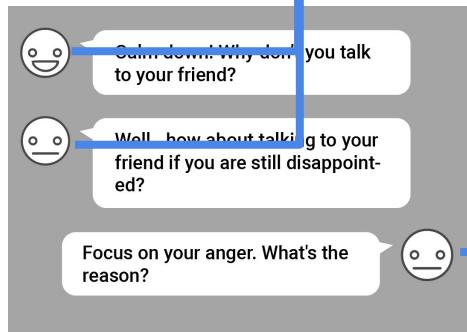
Crowd's thoughts



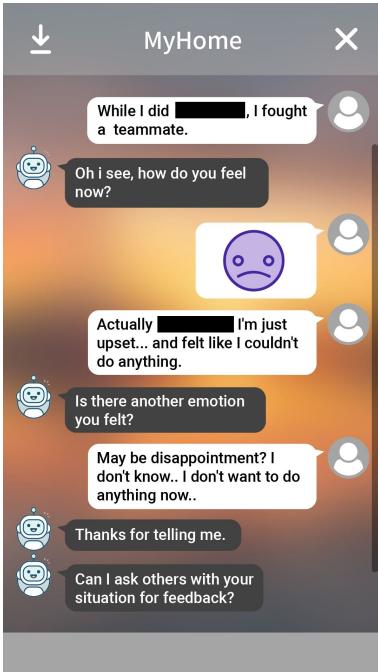
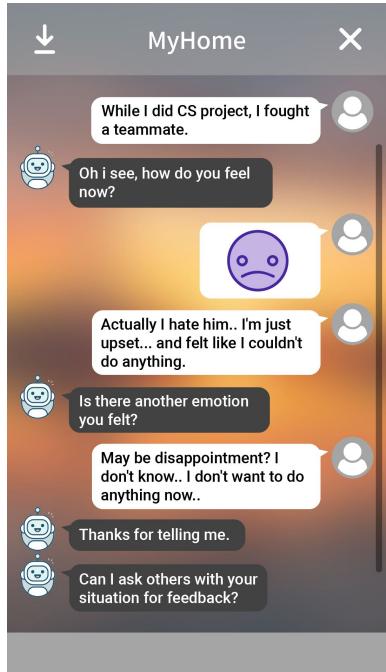
# Crowd's feedback



Crowd's thoughts



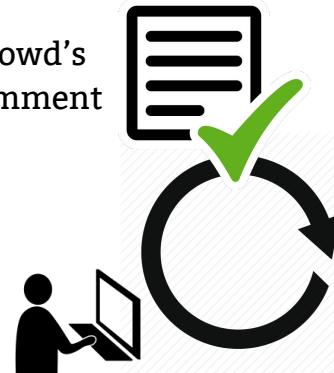
# Facing Challenges



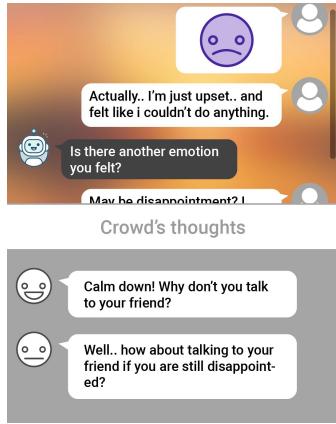
How to deal user's privacy?

## Verification

crowd's  
Comment



## User's View

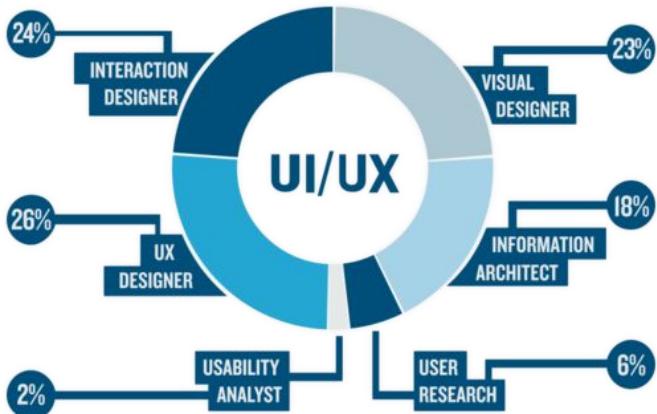


Comments from crowd are only visible to the user after being verified by another user.

How to quality control?

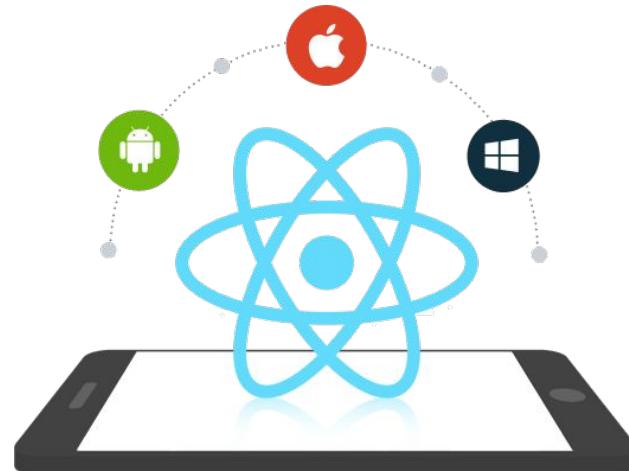
# Progress

## UI Design



Done

## Development (React Native & Firebase)



In progress

# Future Plan

## October

3rd week	Implementation & Pre-survey analysis
4th week	Implementation

## November

1st week	Implementation & Recruiting
2nd week	Implementation & 1st trial in User-Test
3rd week	2nd trial in User-Test & Post survey and User-Interview
4th week	Results analysis

# Evaluation



## User testing & Feedback

Pre-Survey : TAS-20

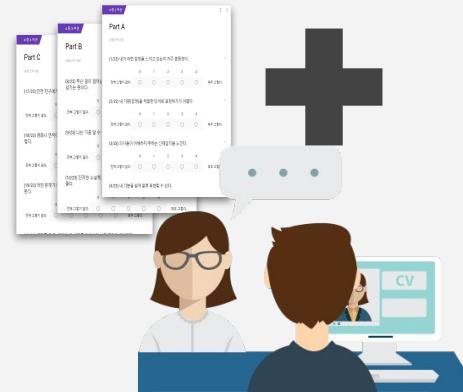
Part A  
1. (10/28) 내가 어떤 감정을 느끼고 있는지 모두 풍선타입.  
2. (10/28) 한동안 친구들과 잘 지내고 있다.  
3. (10/28) 내 가족과 친구들 간에 충분한 대화를 나누고 있다.  
4. (10/28) 나를 좋아하는 사람이나 친구가 있다.  
5. (10/28) 나를 칭찬해 주는 사람이나 친구가 있다.  
6. (10/28) 친구들과 함께 즐거운 시간을 보내고 있다.

Part B  
1. (10/28) 내 가족과 친구들 간에 충분한 대화를 나누고 있다.  
2. (10/28) 나를 칭찬해 주는 사람이나 친구가 있다.  
3. (10/28) 나를 좋아하는 사람이나 친구가 있다.  
4. (10/28) 내 가족과 친구들 간에 충분한 대화를 나누고 있다.  
5. (10/28) 나를 칭찬해 주는 사람이나 친구가 있다.  
6. (10/28) 내 가족과 친구들 간에 충분한 대화를 나누고 있다.

Part C  
1. (10/28) 내 가족과 친구들 간에 충분한 대화를 나누고 있다.  
2. (10/28) 나를 칭찬해 주는 사람이나 친구가 있다.  
3. (10/28) 나를 좋아하는 사람이나 친구가 있다.  
4. (10/28) 내 가족과 친구들 간에 충분한 대화를 나누고 있다.  
5. (10/28) 나를 칭찬해 주는 사람이나 친구가 있다.  
6. (10/28) 내 가족과 친구들 간에 충분한 대화를 나누고 있다.



User-test : During 1 week

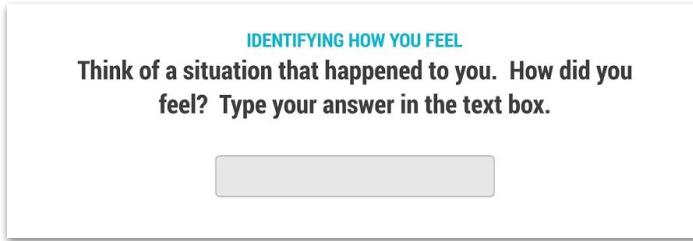


#team Reflection

## KNOW ONE'S EMOTION

# Appendix A: Existing Solution

## Mood Meter



## My Emotional Compass



# Appendix B: Chatbot-based therapy example - Woebot

