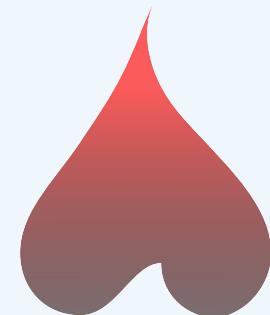


# Suyeon Nam

01/01/2001

Sookmyung Women's Univ., Computer Science

kaithape@gmail.com



# About me

## EDUCATION

**Sookmyung Women's University** Computer Science

GPA **4.46 / 4.5** | MAJOR **4.47 / 4.5**

MAR 2019 - PRESENT

## WORK EXPERIENCES

**GOODLIFELAB** Software Engineer

FEB 2022 - DEC 2022

- Developed report management back office for ‘굿라이프 행복검사’
- Design and client/server development of the '바라던 바다 성격유형 테스트'

**I believe that as technology evolves,  
the way we serve it to users should evolve with it.**

At KAIST's Graduate School of Industrial Design, I hope to develop the skills needed to design experiences for rapidly evolving technologies, especially language models.

The emergence and popularization of LLMs has brought about major changes in many fields, but it can be difficult for those unfamiliar with these models to know how to command them. At the KAIST ID Graduate School, I want to study how to help people who are new to LLMs write prompts well so that they can use the best performance of the model.

image created by Midjourney  
cooperation between woman and AI, photo-realistic, 8k



# Project Overview



## Project 'Deli Manje'

**UX improvement project** for  
a burger franchise **kiosk for seniors**

**ROLE**

Interviewing users  
developing and presenting prototypes

**PROJECT SUMMARY**

Project from the Spring 2021 UX/UI Design class  
Interviewing older users to create **affinity diagrams**  
Organized personas and scenarios  
**Create paper and interactive prototypes**



## 새라[Sae:ra]

Mobile application to **learn standard accent**  
**and pronunciation for North Korean refugees**

**ROLE**

Design, Project management,  
ML Server development

**PROJECT SUMMARY**

A customized standard language learning  
platform for North Korean refugees using  
**intonation visualization and pronunciation**  
**evaluation AI models** based on literature to  
analyze the differences between Korean and  
standard languages.



## NotiNote

Mobile application for **translating and**  
**managing school calendars**  
**for parents of multicultural families**

**ROLE**

Design,  
Mobile client and ML server development

**PROJECT SUMMARY**

Take a picture of a home communication,  
translate it into the user's language,  
and use **AI to extract events and dates**  
**from the school newsletter and add them**  
**to Google Calendar.**

## Overview

# Project 'Deli Manje': Kiosk for Seniors

UX improvement project for a burger franchise kiosk for seniors  
that I did for 2021-1 'UX/UI Design' lecture

**We noticed that the senior population is steadily growing, but  
the kiosks found in many restaurants are not catering for them.**

Through this project, our team interviewed older users to create an affinity diagram, fleshed out the problem by creating personas and scenarios based on a task list, and created a paper/interactive prototype that solved the problem.

**My Role** User Interview, Prototype Design

**Period** 2021.03 - 2021.06

**# of Participants** 5

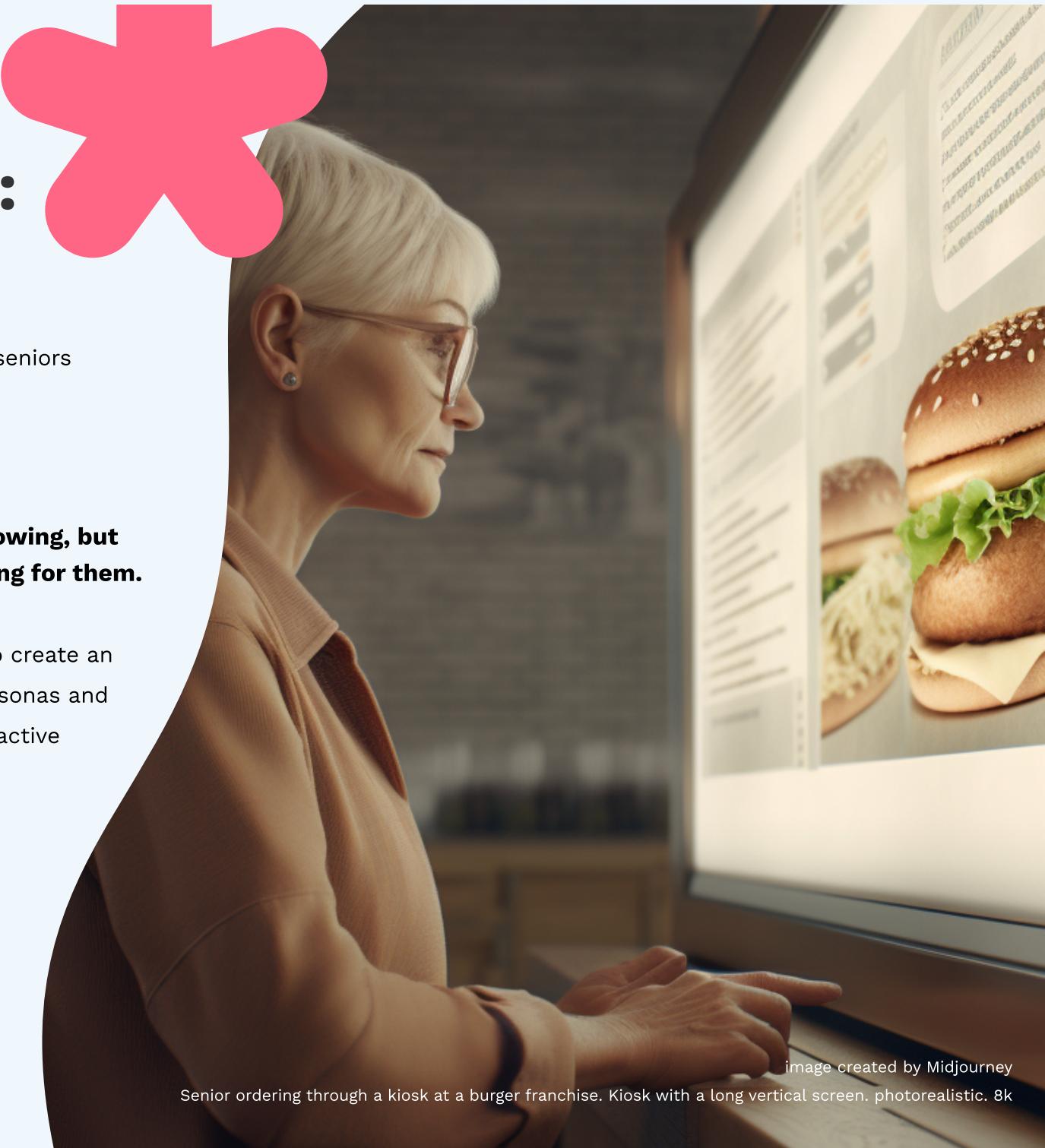


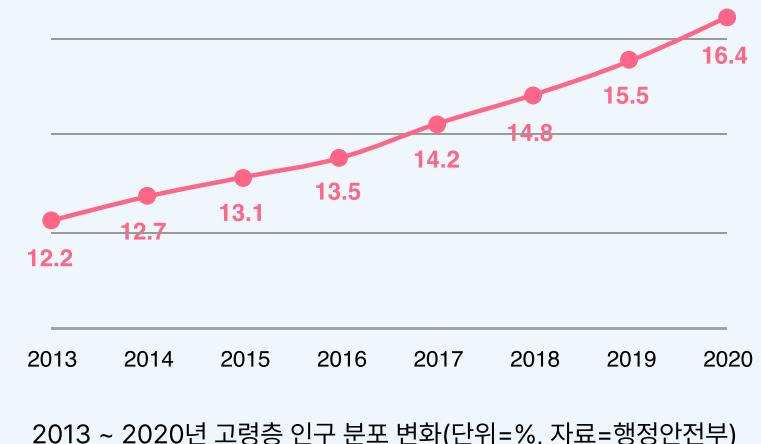
image created by Midjourney

Senior ordering through a kiosk at a burger franchise. Kiosk with a long vertical screen. photorealistic. 8k

## Context / Problem

**The topic of this challenge is a kiosk at an existing burger franchise.** According to Statistics Korea, Korea is entering an aging society, with 16.4% of the population aged 65 and over in 2020, **but the number of elderly people is increasing. 'kiosks' commonly seen in restaurants are not considerate of them.**

Our team paid attention to this issue and interviewed elderly users to find out first-hand the inconveniences they felt.

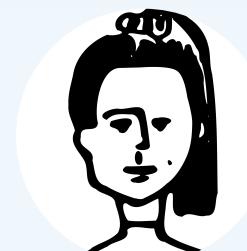


## Step 1. Contextual Inquiry

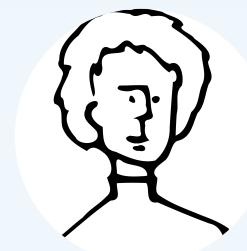
Our team asked three older users to perform a scenario at Lotteria, and then we observed the ordering process and recorded their behavior. After the scenarios, we interviewed the users.



Select a bulgogi burger and shrimp burger and cancel the shrimp burger order  
Pay by card, no affiliate earning



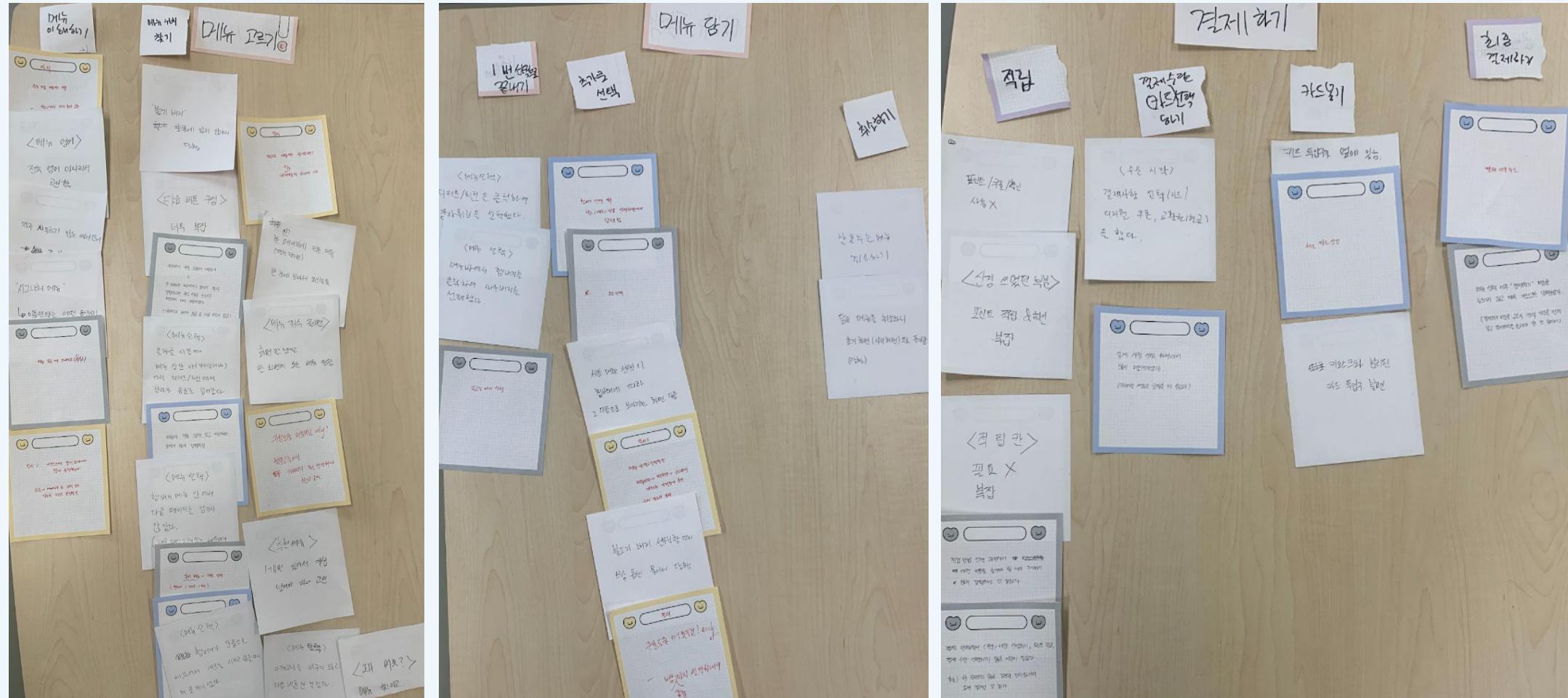
Order 1 Bulgogi burger (squid, coke combo),  
1 Oreo Tornado  
Pay with card and earn Elpoints



Order fries and onion seasoning together  
Order 1 item, then order 1 additional item of the same type  
Pay with mobile gift certificate

## **Step 2. Task Analysis - (1)**

We took the insights we discovered during the contextualization process in Step 1 and wrote them on post-it notes. We created an **affinity diagram by grouping them into three categories: pick a menu/add a menu/checkout.**



## Step 2. Task Analysis - (2)

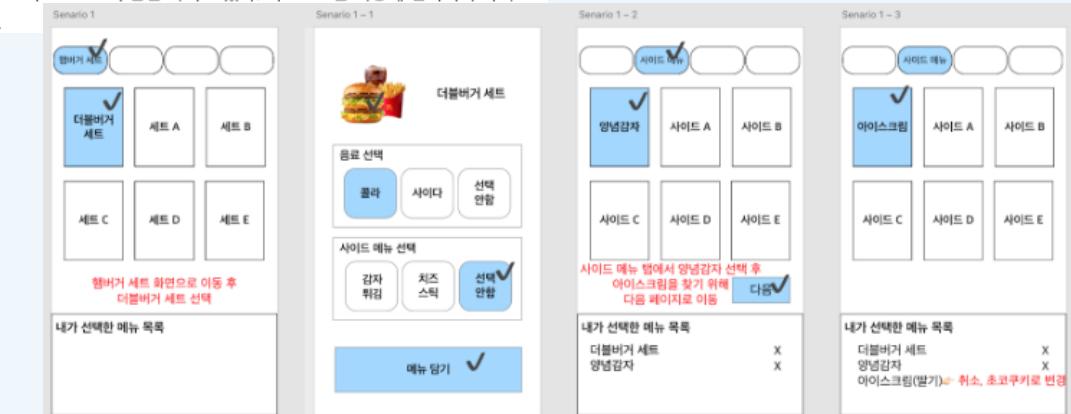
We applied the Affinity Diagram technique to create a derived task list,

Based on the information gathered during user research, including interviews, we created personas that reflected user needs.

For each persona, we created a scenario based on the final prototype.

We also created storyboards to illustrate the steps a user would need to take to accomplish a task in this scenario.

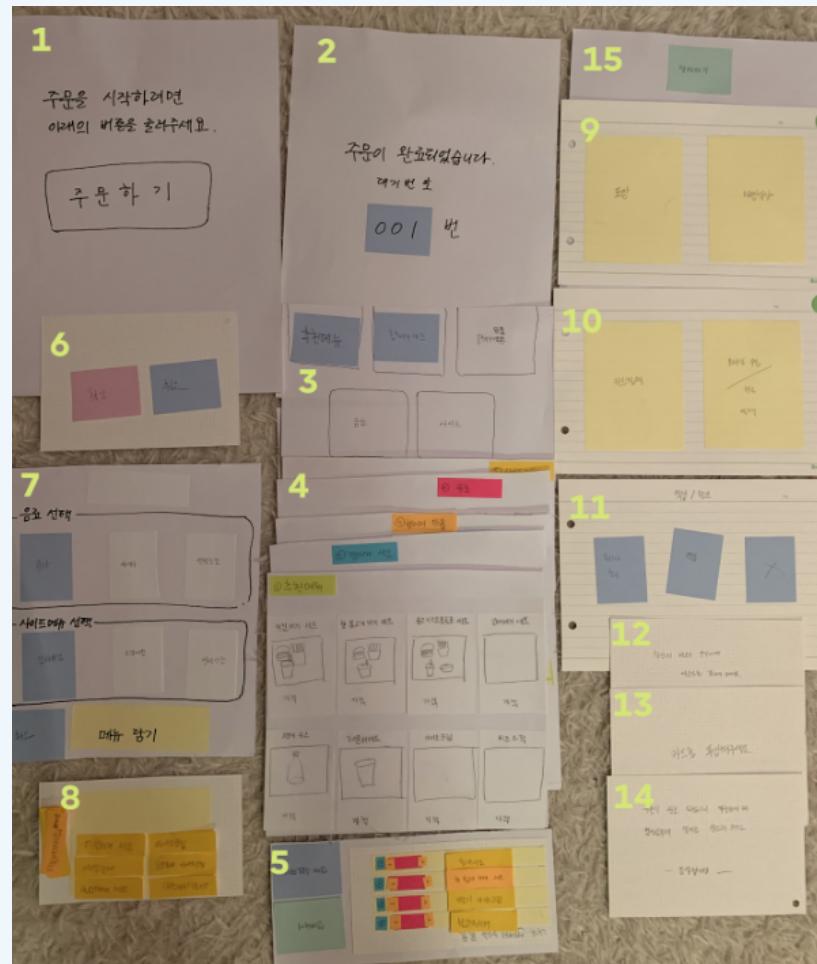
큰 분류	세부 분류	
메뉴 찾아보기	메뉴 살펴보기 추천메뉴 칸에서 원하는 메뉴 찾기 다른 칸에서 원하는 메뉴 찾기	페르소나 A) 키오스크 사용이 낯설고, 대면으로 하는 주문에는 익숙하다. 메뉴 주문은 까다롭다.   이름: 박만례 목표: 햄버거를 원하는 사이드메뉴와 함께 시킨다. 기본 정보: 74세 여성 신상 정보: 유튜브 크리에이터로 햄버거 패스트 푸드점 사이드 메뉴를 좋아한다. 요구사항: 키오스크를 통해 햄버거와 사이드메뉴 주문을 하고자 한다. 기술 친숙도: 대면으로 햄버거를 주문해 본 경험은 있지만, 키오스크를 통한 구매는 이번이 처음이라 친숙하지 않다.
메뉴 선택하기	햄버거 세트 선택하기 옵션 변경하기(default를 바꾸기) 햄버거 종류 선택하기 음료 선택하기 사이드 메뉴 선택하기 옵션(패티 갯수, 빵, 치즈 추가)  달은 메뉴 취소하기 수량 조정하기 포장/매장 식사 선택하기 결제수단 선택하기 포인트 적립하기 결제하기	동기 및 시나리오 1  박만례는 유튜버로 활동하는 70대 여성이다. 그녀는 가끔 유튜브 콘텐츠로 익방을 활용한다. 구독자들이 새로나온 더블버거를 먹어달라는 요청이 많아서 그녀는 오늘 막방 메뉴로 더블버거를 먹기로 했다. 평소 양념 감자와 아이스크림을 좋아하는 그녀는 종종 햄버거 프랜차이즈점에 가서 사이드 메뉴들을 사먹곤 했다. 그녀는 직원을 통한 주문이 편하고 기계 사용이 낯설지만 키오스크를 이용해 달라는 안내판을 보고 키오스크로 주문을 하기로 했다. 키오스크를 이용해 햄버거와 사이드 메뉴들을 주문하려고 한다.
결제하기		



## Step 3. Design Paper/Interactive Prototype

Based on the detailed scenario we created in Step 2, we created a paper prototype considering the sequence of system actions according to the scenario, and then **tested it with test participants using the Wizard of OZ technique**.

After the test, **we conducted interviews and based on the results and created an interactive prototype with Figma**.



# Final Presentation

We concluded the project by performing a heuristic evaluation and identifying what we liked and didn't like about the interface of our target system.

We also had a poster presentation where each team presented the entire process of designing the interface of their proposed system.

## Learning Outputs

I enjoyed interviewing users to understand their problems, rather than relying on statistics or personal experience.

It was great to be involved in the whole process of improving user experience, from interviewing users to prototyping and evaluating.

This experience will help me in future research and prototyping that requires interviewing users.

— For Seniors, For Everyone

## 노년층을 위한 키오스크

델리만쥬 팀  
김지원, 남수연, 박수현, 박채송, 임지성

### \* Overall Problems 문제점

- ▶ 전체 주문 과정에 대한 안내 없이 주문과 결제가 진행됨
- ▶ 과도하게 많은 선택지 제공
- ▶ 대부분의 메뉴 이름이 외래어로 되어 있고, 사진도 작아 메뉴에 대한 정보를 얻기 힘들
- ▶ 스크린 터치 이후 진동, 알림음 등의 피드백 부족

### \* Our Solutions 해결 방안

- ▶ 추천 메뉴 탭을 만들어 메뉴 선택을 편리하게 함
- ▶ 전체 진행 단계와 현재 진행중인 단계에 대한 안내를 제공함
- ▶ 주문 시작 후 일정 시간이 지나면 주문을 도와줄 직원을 호출할 것인지 묻는 창이 팝업됨

### \* Key Features 주요 기능



추천 메뉴 제공



전체적인 주문 과정에 대한 안내 제공



세트 옵션 선택 단순화

### \* Design Interaction 반복 설계 과정



Low-fi  
프로토타입



페이퍼  
프로토타입



인터랙티브  
프로토타입

## Overview

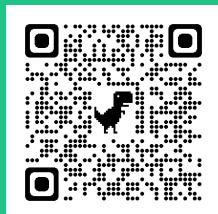
# 새라[Sae:ra]

**Mobile application for learning standard South Korean pronunciation and accent for North Korean defectors**

North Korean refugee resettlement is a regional issue that is unique to South Korea. North Korean defectors are often ignored and prejudiced due to their accent and pronunciation of the Korean language.

We analyzed the differences between the intonation and pronunciation of Korean and standard Korean, and based on that, **we organized learning content and implemented a service to help learn intonation and pronunciation.**

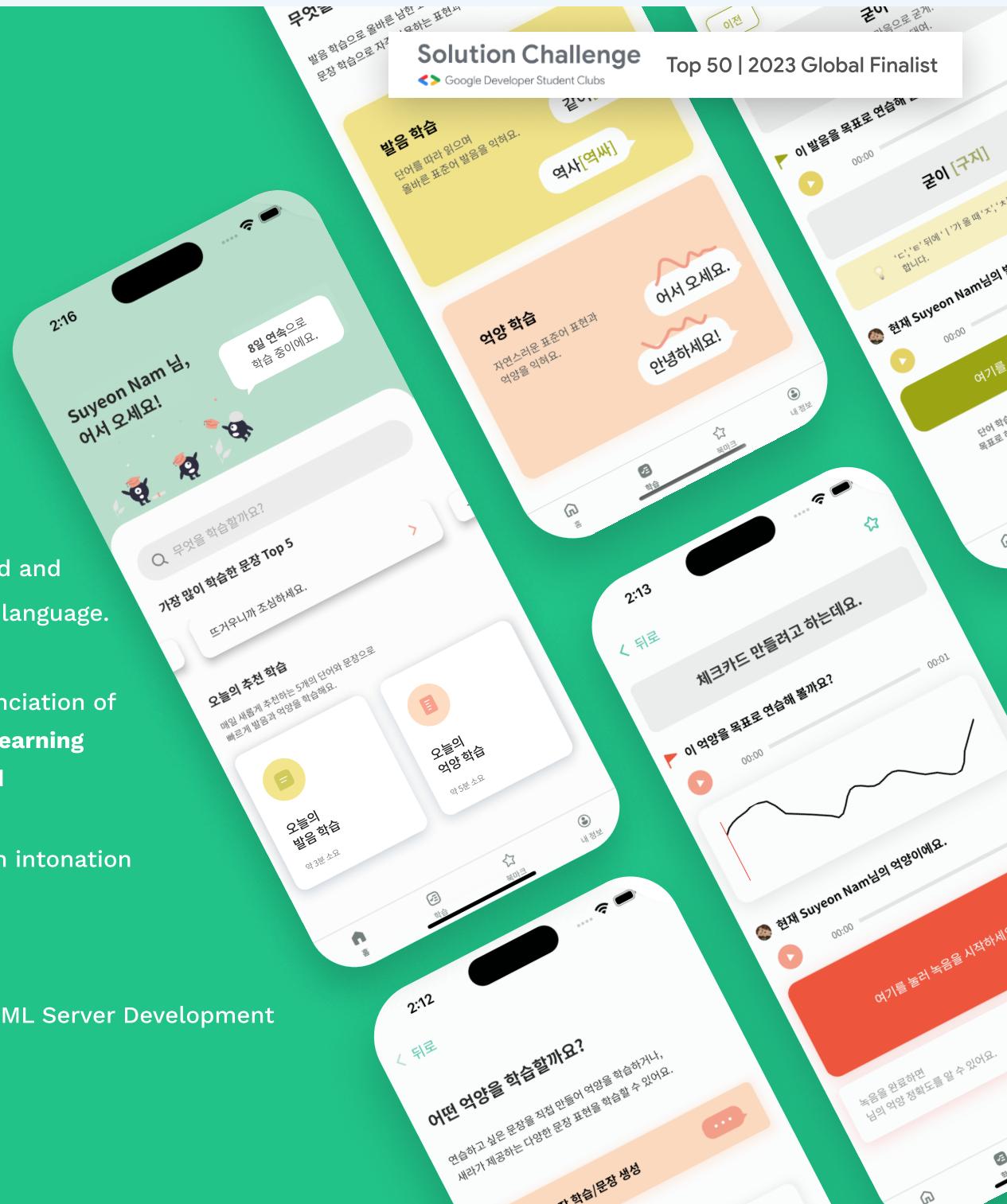
Even if the sentences are not provided by Saera, users can learn intonation by creating their own sentences through AI.



**My Role** Design, Project Management, ML Server Development

**Period** 2023.01 - 2023.03, 2023.05

**# of Participants** 4



# Context / Problem

North Korean defectors face communication barriers in their daily lives and job searches in South Korean society due to language differences. **North Korean defectors are often ignored and prejudiced because they speak North Korean, which is why they try to correct their pronunciation and accent as much as possible to that of the standard language or that of their resettlement area.**

몰랐어요.

몰랐습니다.

# Research

## Pronunciation

### Differences in vowel pronunciation

	South	North
일본(Japan)	[il-bon]	[il-beon]
거기(There)	[geo-gi]	[geu-gi]
음악(Music)	[eu-mak]	[u-mak]

### Differences in consonant pronunciation

	South	North
여자(Woman)	[yeo-ja]	[yeo-za]
거기(There)	[geo-gi]	[geu-gi]

### Pronunciation rules that only exist in the South (구개음화, 'ㄴ' 첨가 현상, 두음법칙)

## Accent

- In North Korea, the end of the sentence falls even though it is an interrogative.
- The intonation is noticeably higher when pronouncing ‘안’ and ‘못’.

신분증은 안 가져왔는데요.

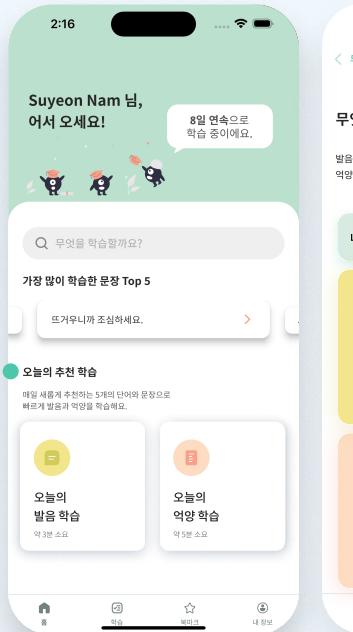
신 분 증은 안 가 족 왔 는 데 요

신분증 안 가져왔습니다.

신 분 증 안 가 족 왔 습 다

# Features

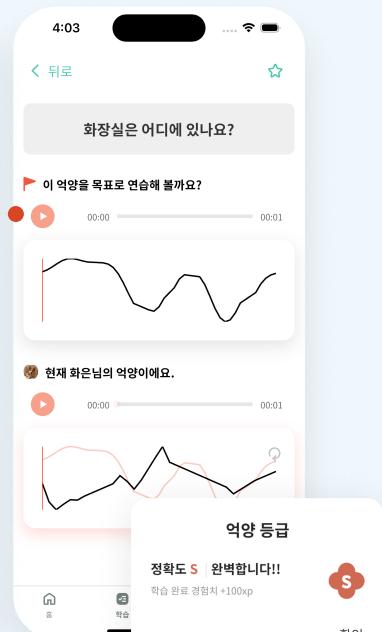
## Home / Learn



## Learn Pronunciation



## Learn Accent



The home screen shows a rotating list of the five sentences that users have learned the most.

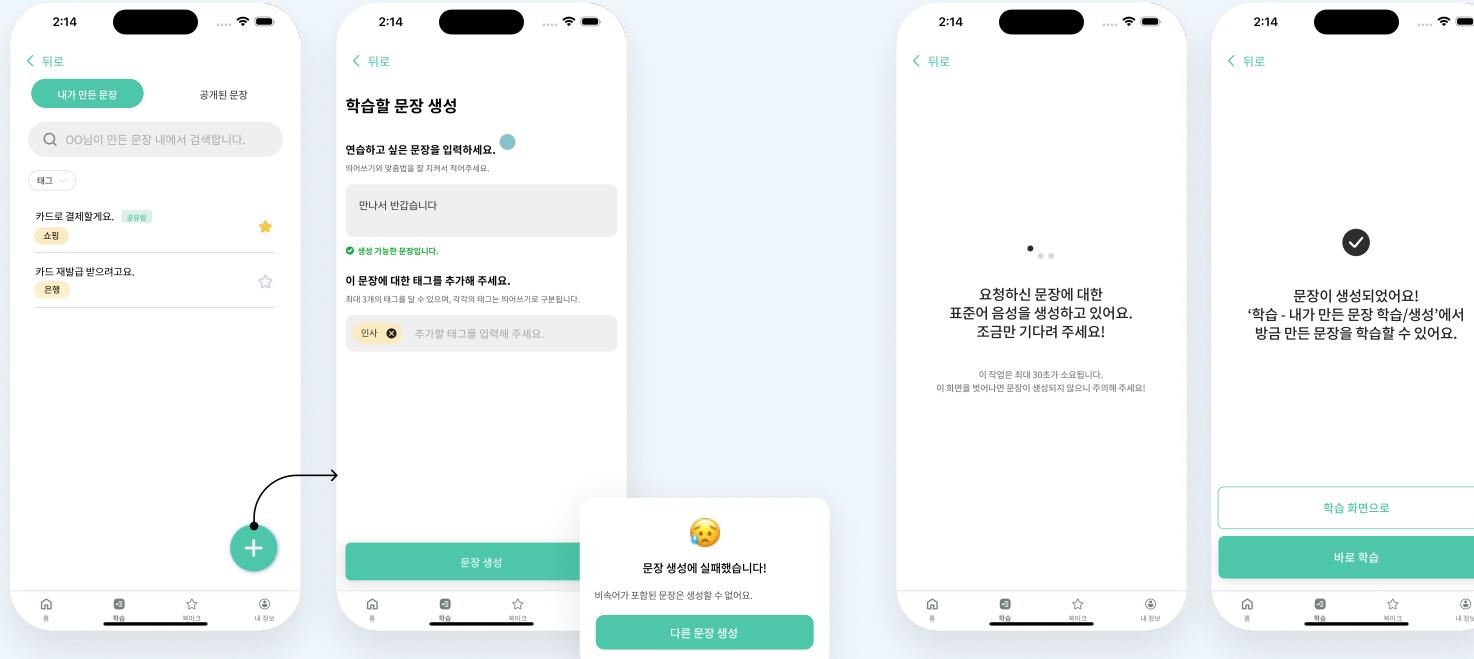
**Today's featured lesson** allows you to learn five random words and sentences each, selected anew each day.

We've categorized the differences between North Korean and South Korean pronunciation into six categories , so you can practice pronouncing the words in each category.

Sentences are categorized by context and sentence type. Users are provided with a voice with standard accent and an intonation graph for the selected sentence , and are given visual feedback and a score on user's accent.

# Features

## Learn Custom Sentences



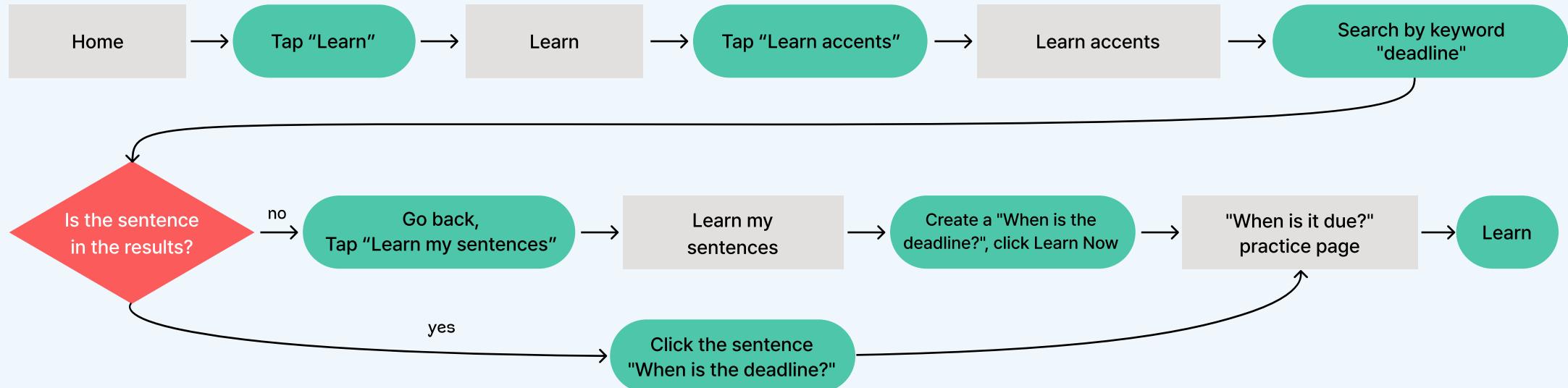
If none of the sentences Saera provides are the ones you want to learn, you can use the 'Learn Custom Sentences' feature to learn the sentences you want to learn.

The user **simply enters the sentence** they want to learn the intonation for, and we provide an intonation graph, standardized example speech, and an intonation assessment in the same UI as the sentences Saera provides by default. If a user's sentence contains an inappropriate word, the system restricts its creation.

# Task Flow

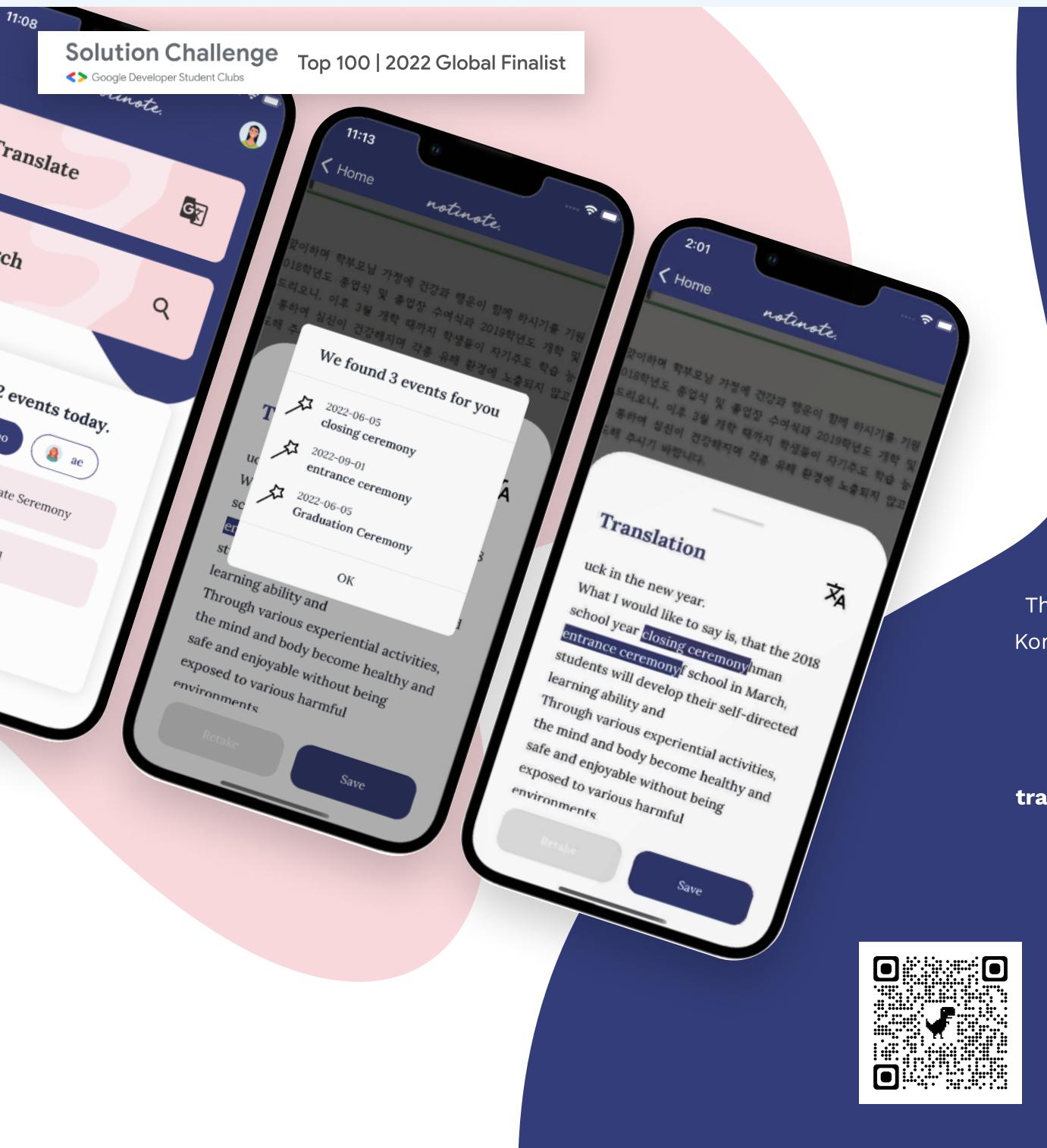


Task: Search for and learn the sentence "When is the deadline?". If no sentence exists, create one and learn it.



## Learning Outputs

1. I realized that **technical understanding is essential** in the design process to properly appeal to users with the amazing features of the application.
2. I learned the **importance of logging and visualizing user behavior and error messages** in order to quickly catch errors and analyze user behavior patterns and learning efficacy.
3. It's important to keep users on a learning curve, so this project allowed me to think deeply about how to keep them engaged.



## Overview

# notinote.

Mobile application for translating and managing school calendars for parents of multicultural families

The proportion of students from multicultural families in Korea is steadily increasing, but there are limited services that translate school newsletters into their language.

We created NotiNote, a mobile application that **translates school newsletters into the user's language by simply taking a picture of them, and uses AI to extract school events and dates from newsletters.**



<b>My Role</b>	Design, Client/ML Server Development
<b>Period</b>	2022.01 - 2022.03, 2022.05
<b># of Participants</b>	4

## Context / Problem

The number of immigrants moving to South Korea has increased dramatically in recent years, and as of 2021, the number of multicultural families in South Korea has nearly tripled since 2013. However, **parents who are not familiar with Korean have difficulty understanding school newsletters and may miss important school events.** While there are some local organizations that provide home communication translation support for parents of multicultural families, they have to wait up to two days for a translation, and the process of requesting a translation is complicated.



Multicultural students in Korea, last 10 years

Translation turnaround time is 2 days or less, depending on the document.

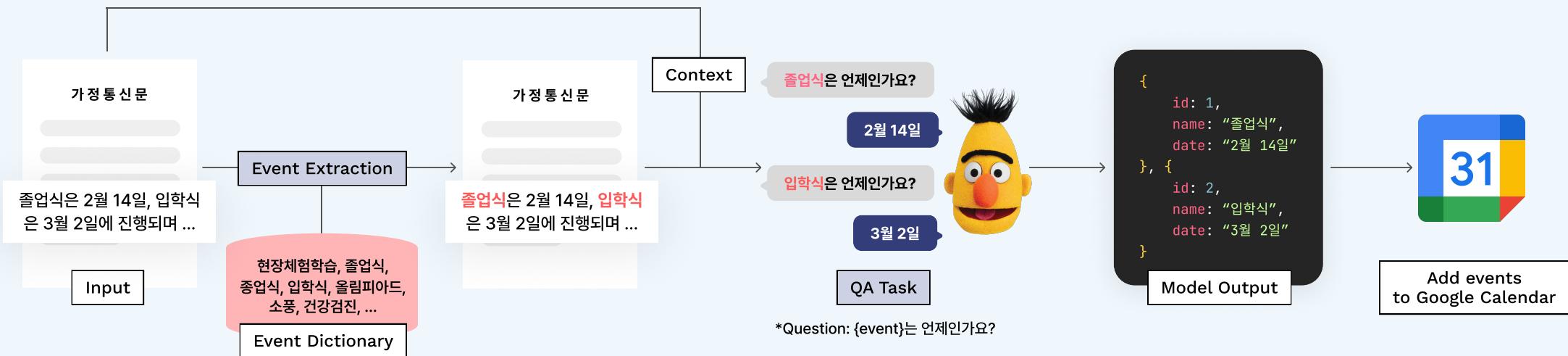
Choose one of the following two methods:

1. Email application: Attach the documents and the application form.
2. Apply from the translation support board on the relevant homepage

'다양성이 공존하는 상호존중 교육환경 조성을 위한 가정통신문 번역 지원 사업', Seoul Metropolitan Office of Education

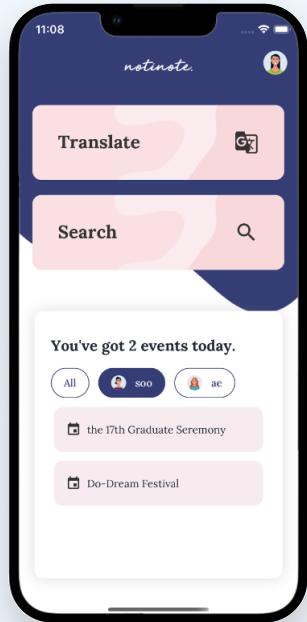
## Solution

With Google Cloud's OCR and Translation APIs and artificial intelligence models performing QA tasks, we implemented the following pipeline.

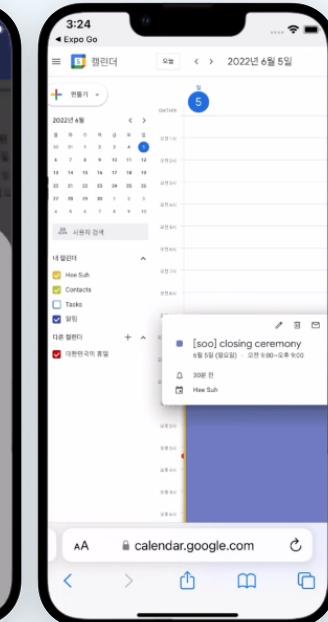
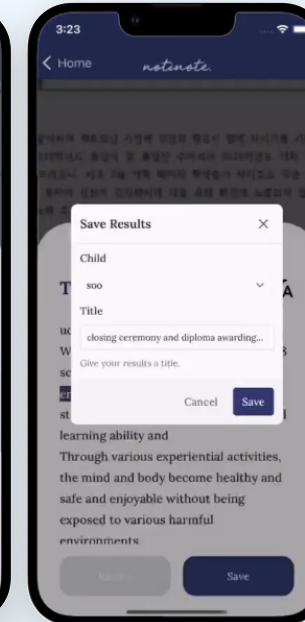
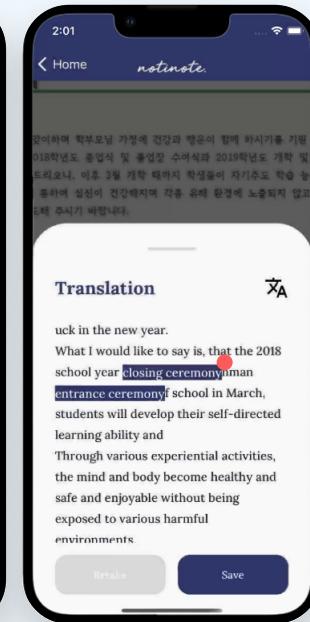
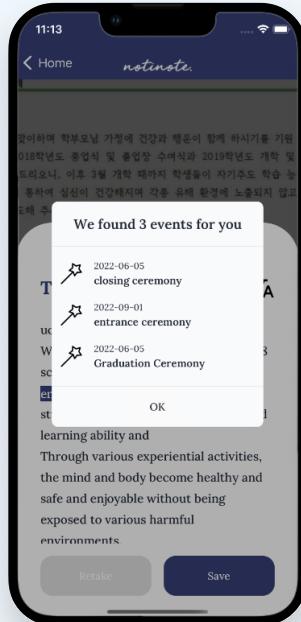


# Features

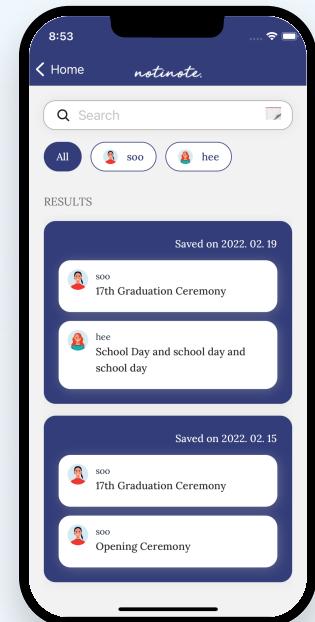
## Home



## Translate & Extract events from newsletter



## Search



From the home screen, you can tap the Translate button to translate your correspondence and extract events.

The camera is activated when you touch the button, and the text is extracted from the school newsletter.

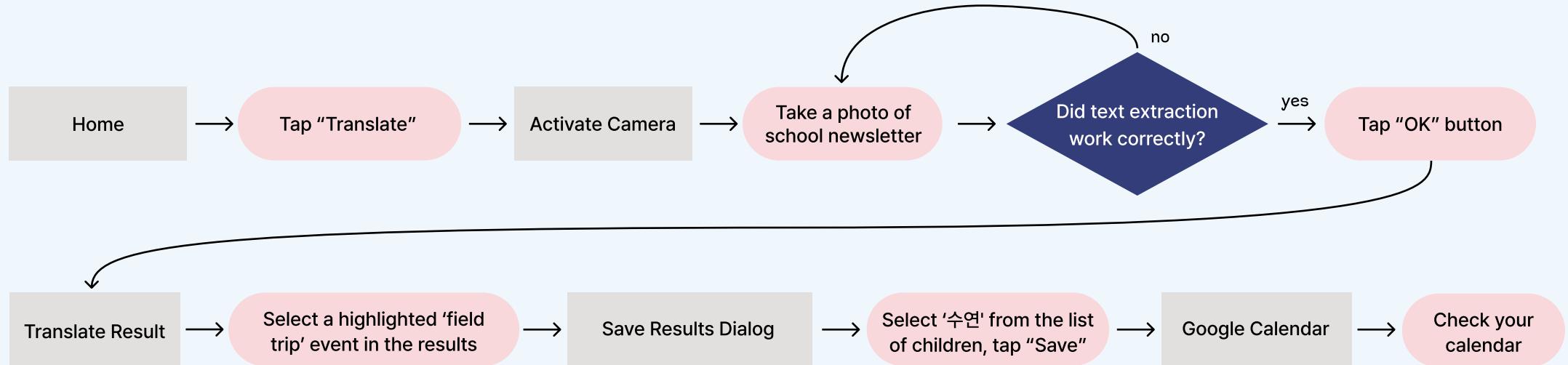
If the extracted text contains information about a school event, extract the event and date from the text.

When you touch the **highlighted event**, a dialog pops up to add the event to the calendar.

## Task Flow



Task: Translate a home communication about a field trip for her child, Suyeon, into your language and add the event to your calendar.



## Learning Outputs

1. As a benefit of being a semifinalist, I was mentored by a UX designer working at Google and practiced **designing a service from a user's perspective instead of a developer's**. Through this project, I realized that designing a user's journey is really interesting, and I wanted to understand more about it.
2. As my first project using machine learning models, I learned how to take a model from HuggingFace and put it on a Python server to make it available as an API.

Thank you!

