DATA DRIVEN SERVICE DESIGN
BUSINESS STRATEGY

sdi SMC

Samsung Medical Center Application Development Project

SMC 삼성서울병원

Goal

Improvement of patients' quality of life during hospitalization

Providing enjoyable content

We aim to provide engaging content for hospitalized patients, helping to alleviate the boredom often experienced during their stay

Assisting rehabilitation

Since many hospitalized patients require rehabilitation, we focus our content on supporting their recovery, helping them heal more quickly

Brief Summary of the App

Patient(User) Login

After being admitted, the patient will be instructed to download the app. Once downloaded, the patient's condition and information will be entered, and upon registration, their information will be loaded using their name and date of birth

→

Finish Mission

Patients will complete two mandatory missions and two optional missions from the content we provide. These contents are determined based on the patient's rehabilitation, family visits, and diet

→

Obtain Gift

Whether or not to engage with the content is entirely up to the patient. However, we encourage participation as the content is designed with many factors in mind, such as the patient's rehabilitation. To motivate patients, we provide small rewards to those who complete the content

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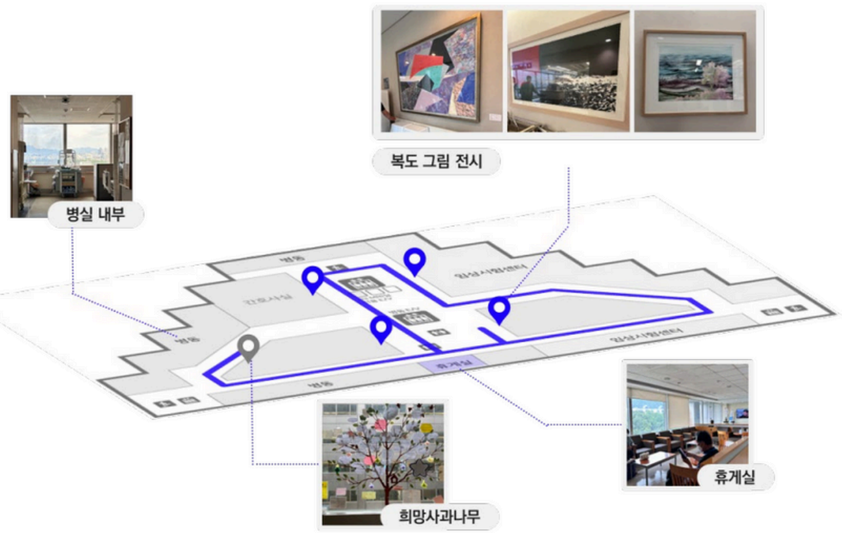
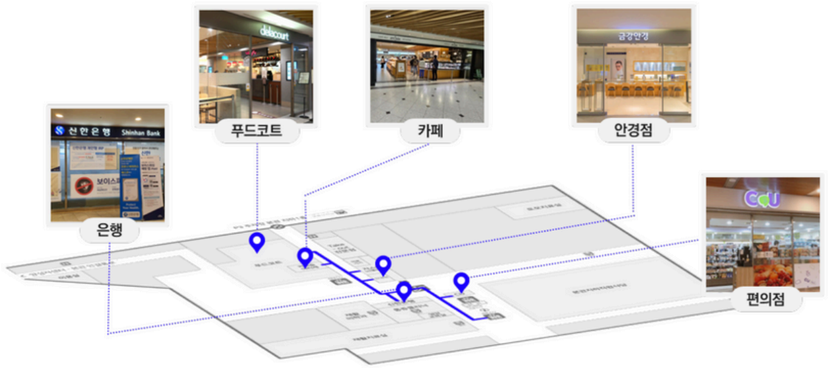
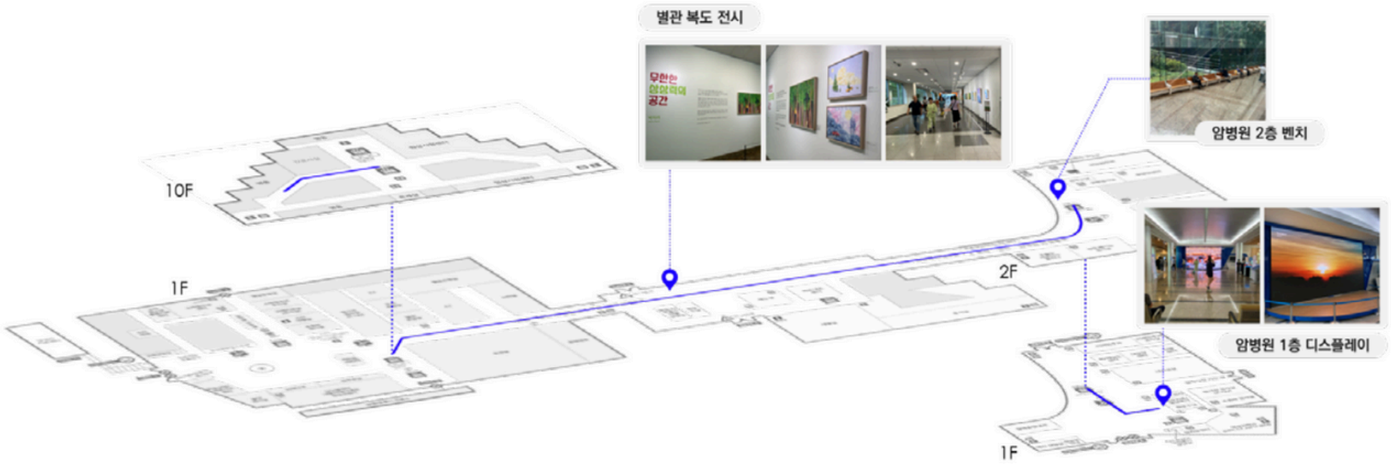
Table of Contents

Field Research

- Researched contents to provide
  - F&B
  - Cafe
  - Amenities
  - Display Monitor
  - Art Works(Coloring, Art Exhibition)
  - Resting Area
  - Education
  - Meditation
  - Stretching
  - Walk
  - Event







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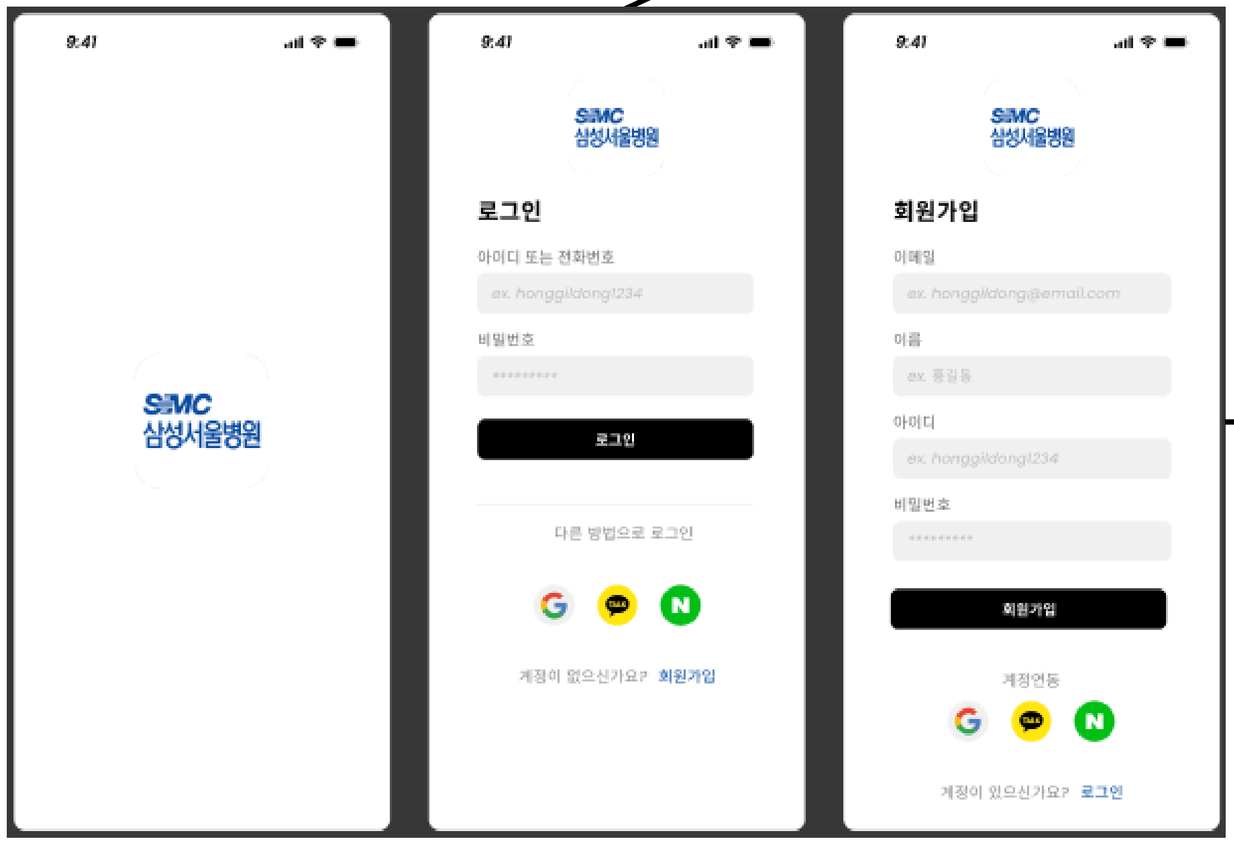
UI/UX

Registration/Home Page

Registration Page
- Able to register with social accounts such as Google, Kakao, and Naver

Main Page
- Display the step count to motivate the patient
- Display Mandatory/Optional Mission to gain prize
- Display recommended contents for patient base on their profile



A locked icon will be visible on the progress UI until the user starts their mission

When the user starts a mission, they can go to the content's page by clicking the button

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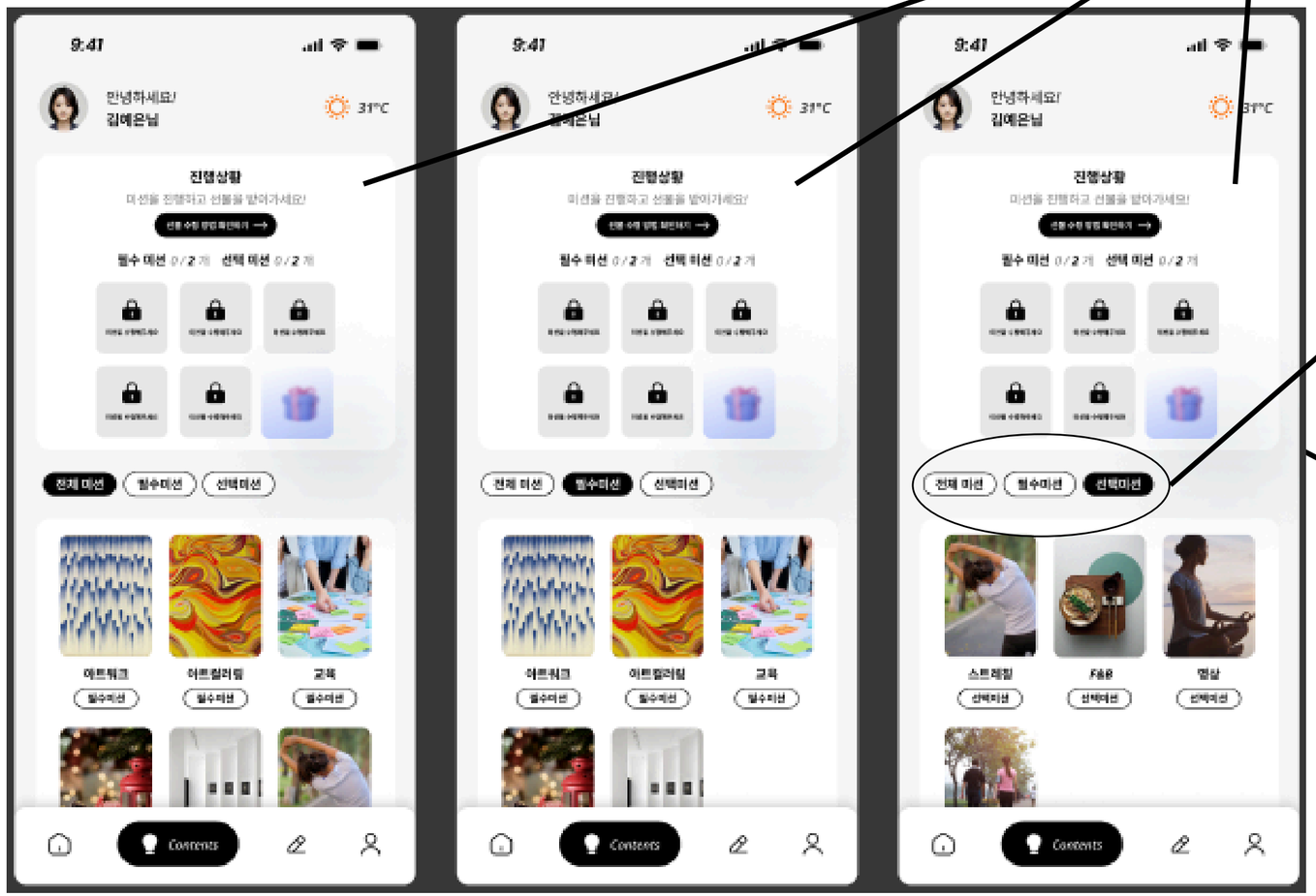
UI/UX

Contents Page

Displays progress through a UI at the top of the contents page for user friendly design. By clicking the icon on that UI, users will be redirected to the corresponding content



In sequence: All/Mandatory/Optional

Each page contains content based on the chosen category (All/Mandatory/Optional) for easier viewing by users

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UI/UX

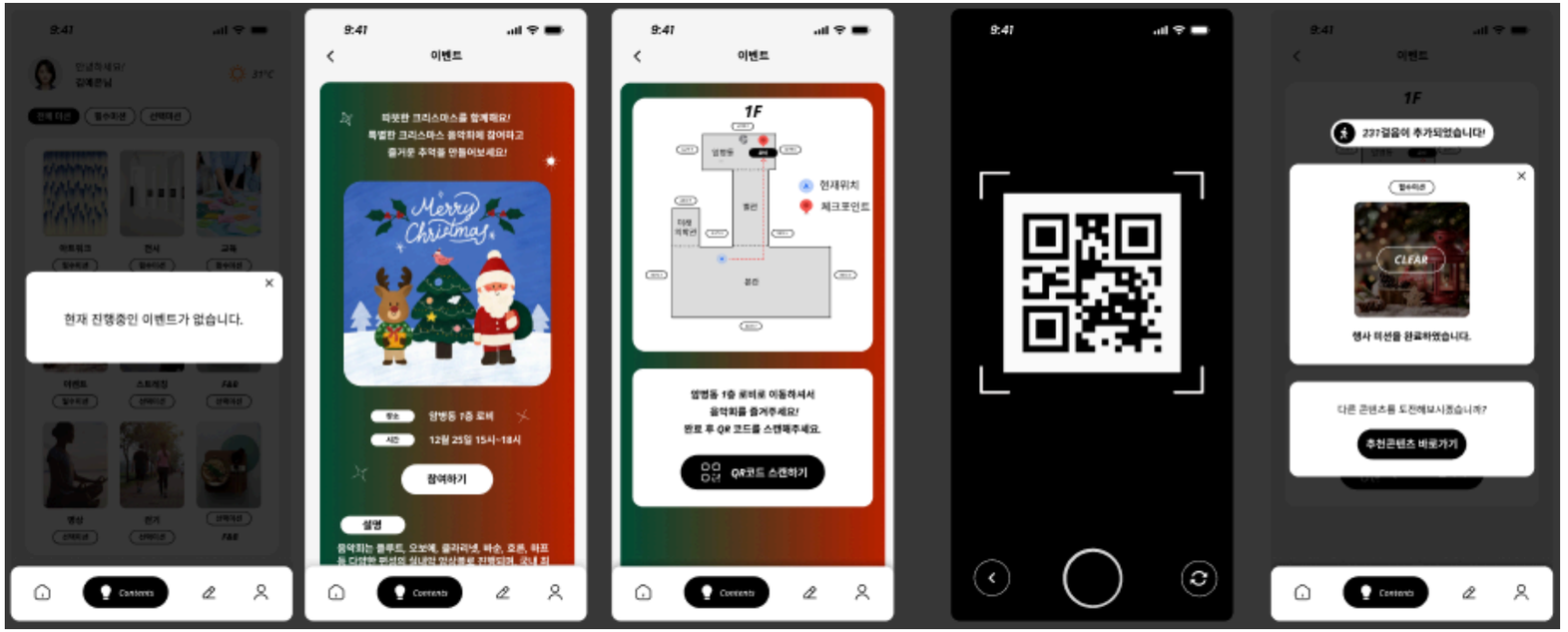
Contents Page Detail (Event/Education)

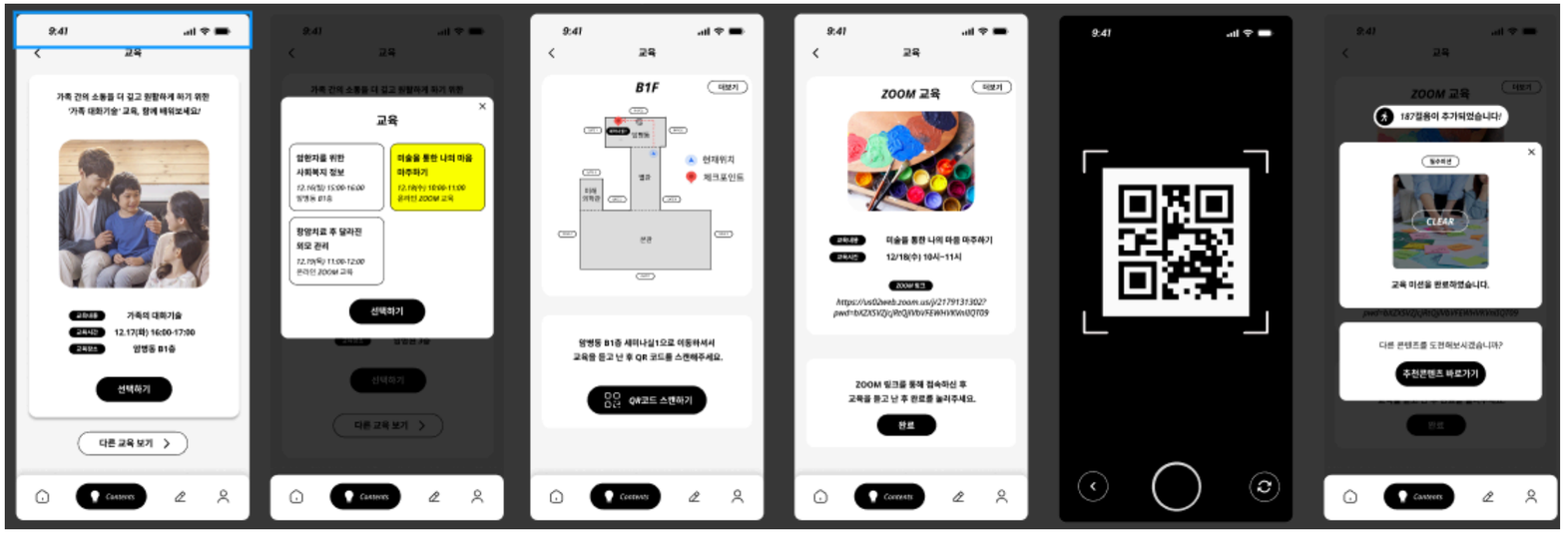
Event

- The hospital holds events periodically. For example, as shown on the right, there is a Christmas concert event held during the Christmas season. We designed the UI as Christmas-themed and the UI provides directions to the concert location. Once patients arrive and scan the QR code at the venue, the mission is completed

Education

- We have also included hospital-hosted educational programs in the content to address issues such as depression and deteriorating family relationships that may arise during hospitalization. By clicking on the corresponding UI, a list of ongoing programs will appear. Once the patient selects a program, directions to the location will be provided. Upon arriving at the location and scanning the QR code, the content will be marked as completed





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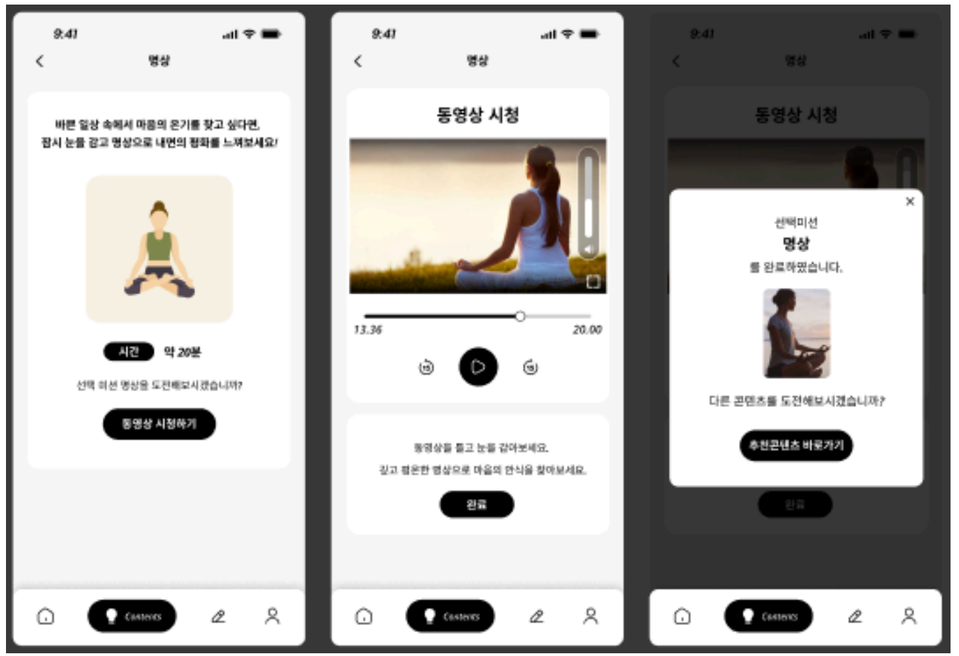
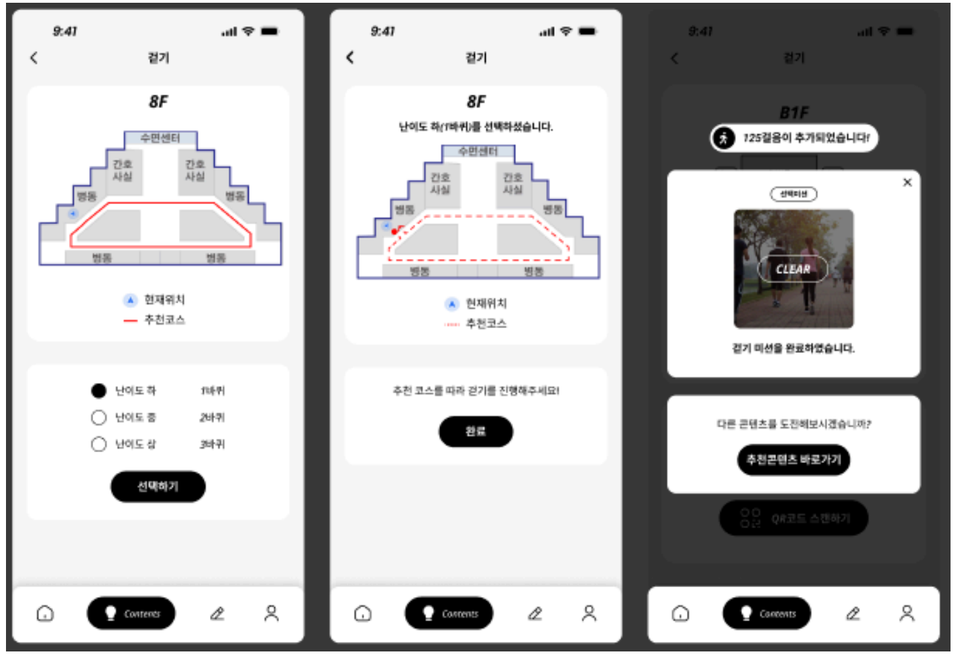
UI/UX

Contents Page Detail (Meditation/Walk)





Meditation

- To support patients' well-being, we have also added meditation as part of the content. As shown in the first screen at the bottom left, patients can start the session from the 'Start' page. Once started, the second screen plays a video with calming music and guided text. When the video finishes, the third screen will display a completion message

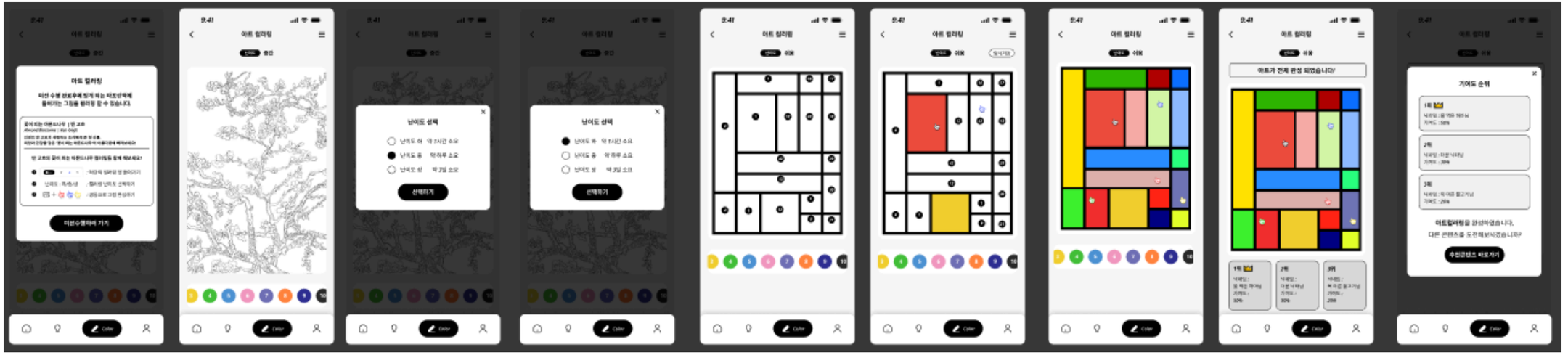
Walk

- To support patients' rehabilitation, we have added walking courses as part of the content. As shown in the first screen at the bottom left, patients can choose between difficulty levels: high, medium, or low. Once a difficulty is selected, the route will be displayed as seen in the second screen. The course is tracked using the phone's location services, and upon completion, a completion message will appear on the third screen

UI/UX

Contents Page Detail (Art Coloring)

We also wanted to provide content that patients could enjoy together through cooperation. After discussing with our lab members, we decided to add collaborative coloring to the content, and the result is shown below. On the first page, we explain what each icon represents for patients who may not be familiar with the UI. Once they start, as shown in the second page, they are automatically assigned to a medium difficulty level. However, if it's too challenging, they can choose a different difficulty as shown on the third and fourth pages. On the fifth and sixth pages, patients can select a section to color. Once a section is chosen, others cannot select it. Upon completion, as seen on the eighth and ninth page, rankings based on contributions are displayed at the bottom. This design allows patients to experience both cooperation and competition, making it more engaging



UI/UX

Receiving Gift

First Page

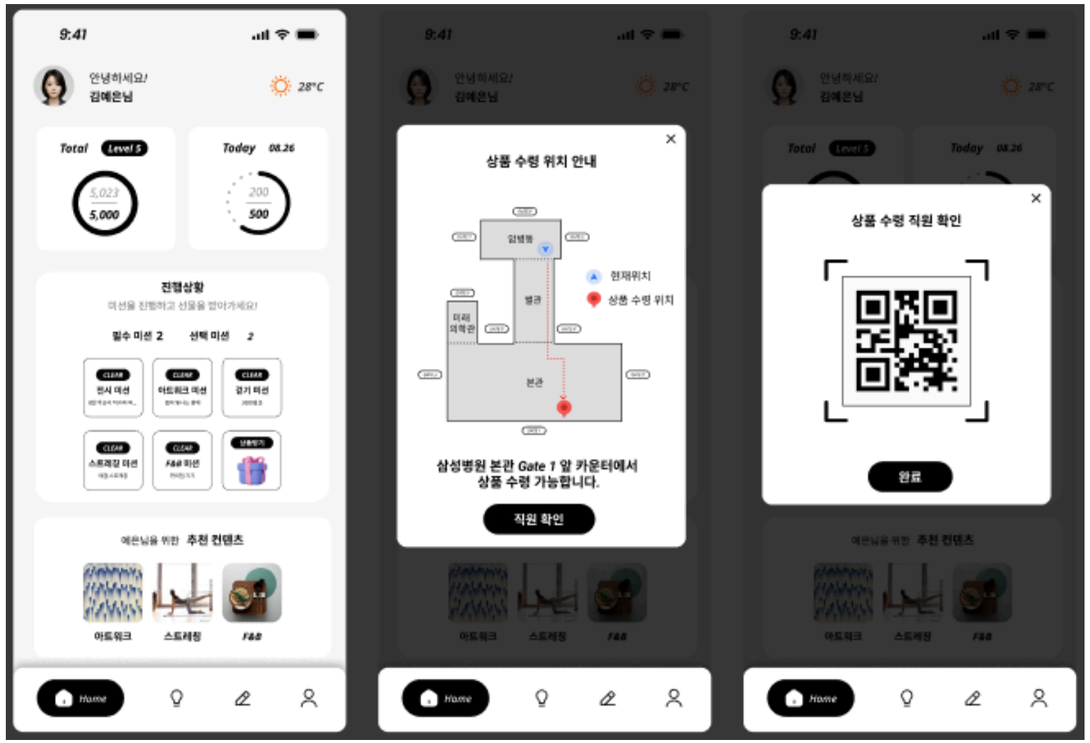
- When you finish all the missions, the page will display like the first page, with all missions marked as completed and the gift button available

Second Page

- Displays directions to the prize pickup location

Third Page

- A QR code is displayed. When a hospital staff member scans the code, the user's task is marked as complete, and they will receive a gift



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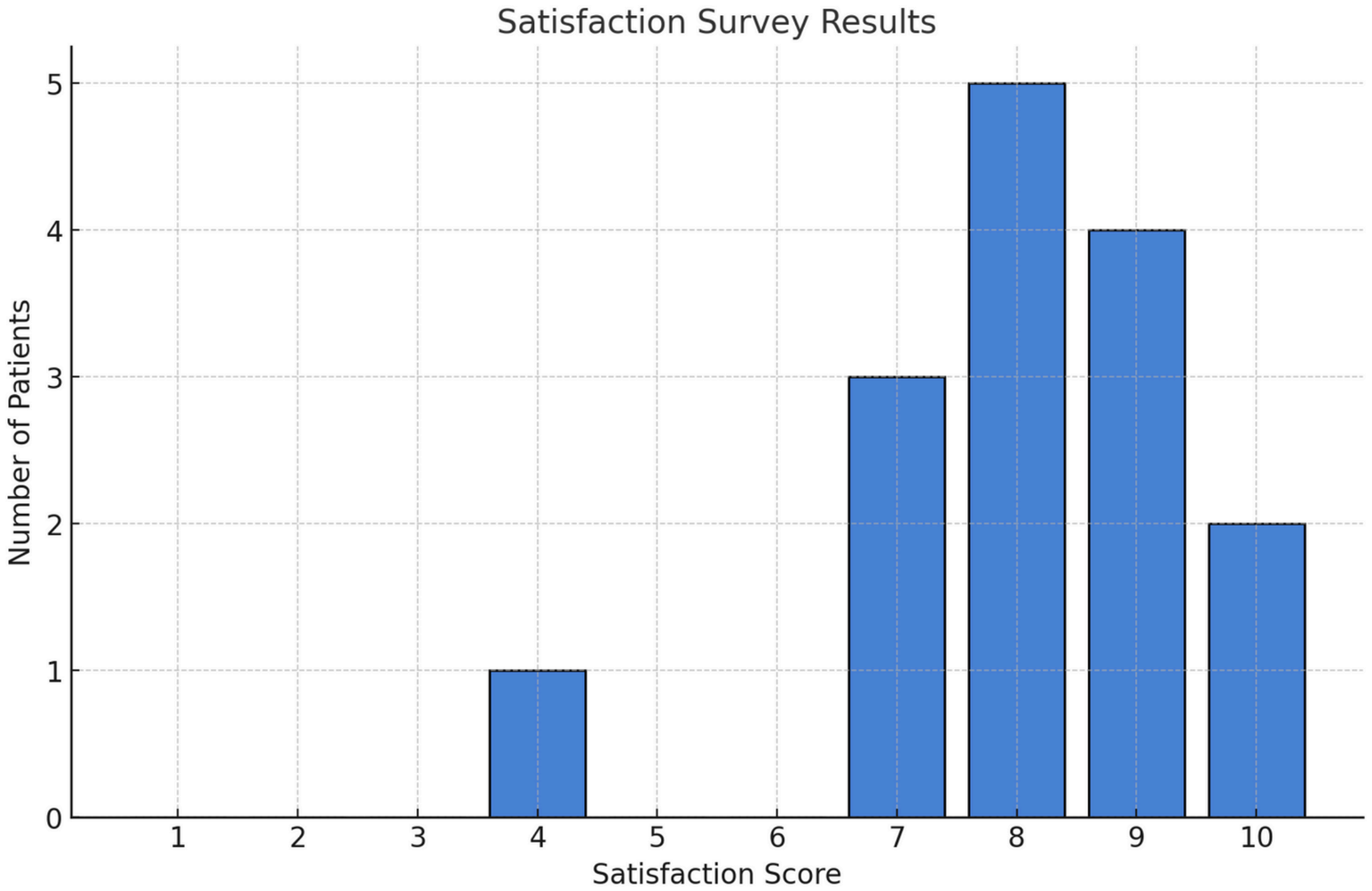
User Testing for App



Challenges/How we Solved

Challenges

- Elderly Patients: Given that the majority of patients are elderly rather than younger, there were significant challenges in designing the content and interface. Elderly patients are generally unfamiliar with the concept of a user interface (UI), which required numerous revisions. We received a lot of feedback from professors and hospital staff advising us to make further adjustments.

- Tailoring Content: Another issue was how to recommend content, as each patient's physical condition varies. Some patients are unable to walk, while others have no difficulty with daily activities. Additionally, while we aimed to deliver hopeful messages through the content, patients might perceive them differently, which led to a great deal of reflection and concern

How we Solved

- On-Site Efforts: We conducted interviews and user testing with elderly patients, facilitated by the hospital. As a result, after our final round of user testing, we received overwhelmingly positive feedback, as shown in the previous page

- Customized Content: We categorized patients based on their mobility—those who could walk and those who couldn’t. Since the app stores patient information from the start, we used this data to provide tailored content accordingly. Regarding hopeful messages, we decided to remove them entirely, as it's difficult to fully understand a patient's perspective, no matter how much we try to put ourselves in their shoes

Links

Figma:
https://www.figma.com/proto/8NLbzqCZDitQjpheUHl58n/%EC%B4%88%EA%B8%B0%EC%96%B4%ED%94%8C%EB%94%94%EC%9E%90%EC%9D%B8?node-id=0-1&t=uUPEkVdyMCkfzzDs-1

Magma Prototype:
https://magma.com/d/s7wxzY9iEH

P5.JS Prototype:
http://3.104.38.222/SMC/test/index.html

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