

**Fine\_Kindergarten Project**  
**Use Case Specification**  
**Version <3.0>**

**By Team FineApple**

Project name	Version: <1.0>
Use Case Specification	Date: <10/22/22>

## Revision History

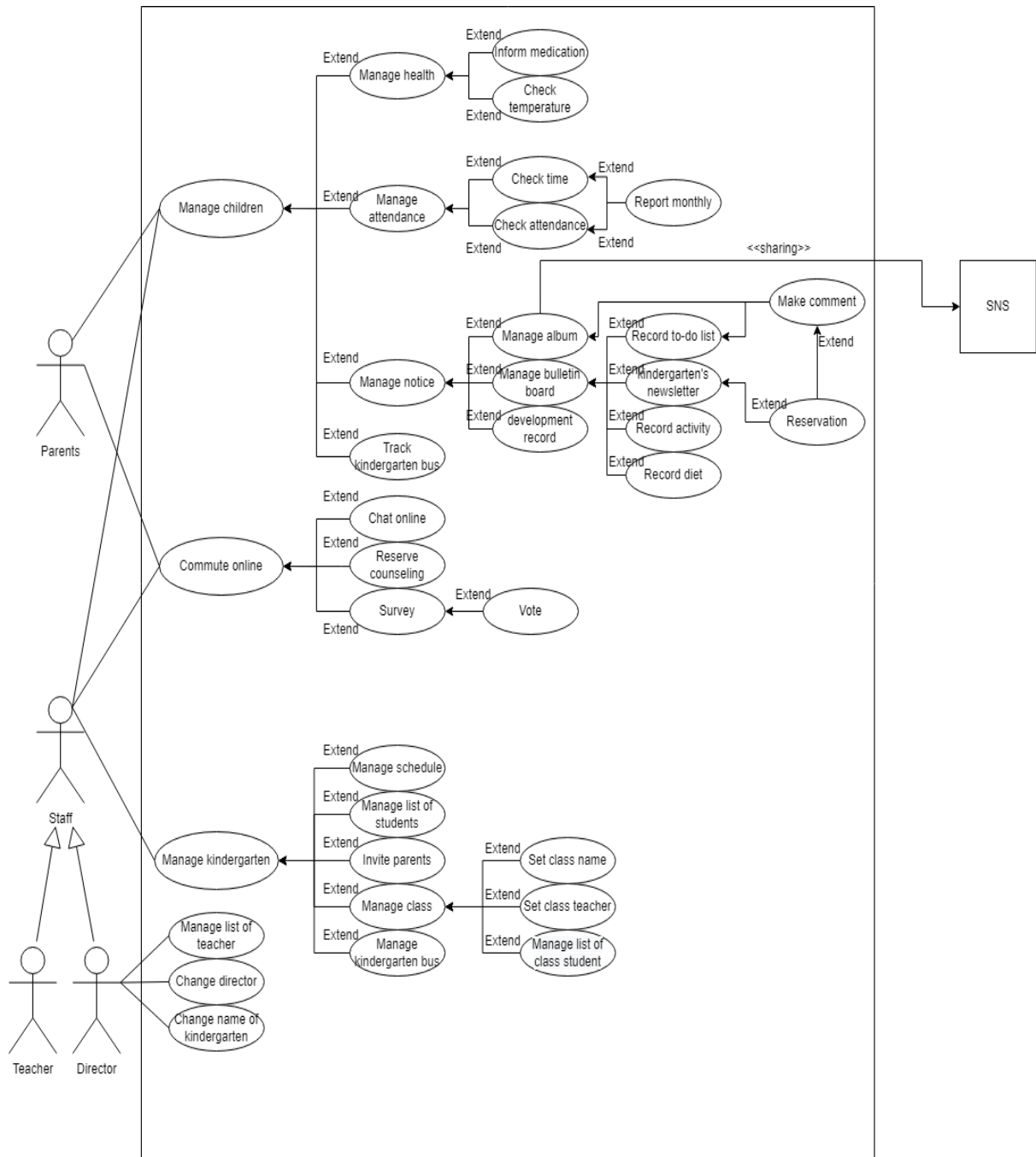
Date	Version	Description	Author
<10/22/22>	<1.0>	First draft	김민규
<10/23/22>	<2.0>	Write details	All teammates
<10/24/22>	<3.0>	Check typos, correction	김민규

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# Use Case Specification

## 1. Introduction

### 1.1 Use Case Diagram



### 1.2 Use Case Identifier

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Identifier	Actor	Description
UC-00	Parents, Staff, Director	Select Function (Launching System)
UC-01	Parents, Staff	Manage Children
UC-02	Parents, Staff	Commute Online
UC-03	Staff	Manage Kindergarten
UC-MC01	Parents, Staff	Manage Health
UC-MC02	Parents, Staff	Manage Attendance
UC-MC03	Parents, Staff	Manage Notice
UC-MC04	Parents, Staff	Track Bus
UC-CO01	Parents, Staff	Chat Online
UC-CO02	Parents, Staff	Reserve Counseling
UC-CO03	Parents, Staff	Survey
UC-MK01	Staff	Manage Schedule
UC-MK02	Staff	Manage List of Students
UC-MK03	Staff	Invite Parents
UC-MK04	Staff	Manage Class
UC-MK05	Staff	Manage Kindergarten Bus
UC-MH01	Parents, Staff	Inform Medication
UC-MH02	Parents, Staff	Check Temperature
UC-MA01	Parents, Staff	Check Time
UC-MA02	Parents, Staff	Check attendance
UC-MN01	Parents, Staff	Manage Album
UC-MN02	Parents, Staff	Manage Bulletin board
UC-MN03	Parents, Staff	Development Record
UC-SV01	Parents, Staff	Vote
UC-MC01	Staff	Set Class Name
UC-MC02	Staff	Set Class Teacher
UC-MC03	Staff	Manage List of Class Student
UC-RM01	Parents, Staff	Report Monthly
UC-MB01	Parents, Staff	Record To-do List
UC-MB02	Parents, Staff	Record Kindergarten's Newsletter
UC-MB03	Parents, Staff	Record Activity
UC-MM01	Parents, Staff	Make Comment
UC-RV01	Parents, Staff	Reservation
UC-AL01	Director	Manage List of Teachers
UC-AL02	Director	Change Director
UC-AL03	Director	Change Name of Kindergarten

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## 1.3 Glossary

SRS	Software Requirement Specification
SNS	Social Network Service
FAQ	Frequently Asked Questions
QnA	Question and Answer
Director	Head of kindergarten

## 2. Use Case Model

### 2.1 UC-00: Select Function

#### 2.1.1 Brief Description

This use case describes actor's selection of system's functions.

<Functions>

UC-01: Manage Children

UC-02: Commute Online

UC-03: Manage Kindergarten

UC-AL01: Manage List of Teachers

UC-AL02: Change Director

UC-AL03: Change Name of Kindergarten

#### 2.1.2 Flow of Events

##### 2.1.2.1 Basic Flow

2.1.2.1. A      The system shows the user one of the functions.

2.1.2.1. B      The user selects one of the functions.

##### 2.1.2.2 Alternative Flows

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2.1.2.2. A.1 When user is director, the system shows the actor function UC-AL01, UC-AL02, UC-AL03.

2.2.2.2. A.2 When user is director, the actor should select one of the functions, UC-AL01, UC-AL02, UC-AL03.

### 2.1.3 Pre-Conditions

2.1.3.1 User must log-in the system.

2.1.3.2 The system distinguishes users. (2.1.2.1 in SRS.)

### 2.1.4 Post-Condition

2.1.4.1 User select one of the functions.

### 2.1.5 Name of Extension Point

2.1.5.1 UC-01: Manage Children

2.1.5.2 UC-02: Commute Online

2.1.5.3 UC-03: Manage Kindergarten

2.1.5.4 UC-AL01, UC-AL02, UC-AL03

## 2.2 UC-01: Manage Children

### 2.2.1 Brief Description

This use case describes the functions of managing children.

<Functions>

UC-MC01: Manage Health

UC-MC02: Manage Attendance

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UC-MC03: Manage Notice

UC-MC04: Track Bus

## 2.2.2 Flow of Events

### 2.2.2.1 Basic Flow

- 2.2.2.1. A      When user is staff.
- 2.2.2.1. A.1    When user selects UC-MC01.
- 2.2.2.1. A.1.1   User checks medicine child takes
- 2.2.2.1. A.1.2   User records child's temperature.
- 2.2.2.1. A.2    When user selects UC-MC02.
- 2.2.2.1. A.2.1   User records time when child gets to kindergarten.
- 2.2.2.2. A.2.2   User records time when child leaves kindergarten.
- 2.2.2.1. A.2.3   User records child's attendance state.
- 2.2.2.1. A.3    When user selects UC-MC03.
- 2.2.2.1. A.3.1   User manages album. (UC-MN01)
- 2.2.2.1. A.3.2   User manages bulletin board. (UC-MN02)
- 2.2.2.1. A.3.3   User writes child's development record.
- 2.2.2.1. A.4    When user selects UC-MC04.
- 2.2.2.1. A.4.1   User tracks bus's current location.

### 2.2.2.2 Alternative Flows

- 2.2.2.2. A      When user is parents.
- 2.2.2.2. A.1    When user selects UC-MC01.
- 2.2.2.2. A.1.1   User records medicine what user's child takes.

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- 2.2.2.2. A.1.2 User records how to take medicine.
- 2.2.2.2. A.1.3 User checks temperature of user's child.
- 2.2.2.2. A.2 When user selects UC-MC02.
- 2.2.2.2. A.2.1 User checks time when user's child gets to kindergarten.
- 2.2.2.2. A.2.2 User checks time when user's child leaves kindergarten.
- 2.2.2.2. A.2.3 User checks attendance state of user's child.
- 2.2.2.2. A.3 When user selects UC-MC03.
- 2.2.2.2. A.3.1 User checks album. (UC-MN01)
- 2.2.2.2. A.3.2 User checks bulletin board. (UC-MN02)
- 2.2.2.2. A.3.3 User checks development record of user's child.
- 2.2.2.1. A.4 When user selects UC-MC04.
- 2.2.2.1. A.4.1 User tracks bus's current location.

### 2.2.3 Pre-Conditions

- 2.2.3.1 User selected UC-01 at UC-00

### 2.2.4 Post-Conditions

- 2.2.4.1 User select one of functions.

### 2.2.5 Name of Extension Point

- 2.2.5.1 UC-MH01: Inform Medication
- 2.2.5.2 UC-MH02: Check Temperature
- 2.2.5.3 UC-MA01: Check Time
- 2.2.5.4 UC-MA02: Check Attendance



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2.2.5.5 UC-MN01: Manage Album

2.2.5.6 UC-MN02: Manage Bulletin Board

2.2.5.7 UC-MN03: Development Record

## 2.3 UC-02: Commute Online

### 2.3.1 Brief Description

This use case describes the functions of commuting online.

<functions>

UC-CO01: Chat Online

UC-CO02: Reverse Counseling

UC-CO03: Survey

### 2.3.2 Flow of Events

#### 2.3.2.1 Basic Flow

- 2.3.2.1. A      When user is staff.
- 2.3.2.1. A.1    When user selects UC-CO01.
  - 2.3.2.1. A.1.1    User chats online with other users.
- 2.3.2.1. A.2    When user selects UC-CO02.
  - 2.3.2.1. A.2.1    The system shows list of reserved counseling.
  - 2.3.2.1. A.2.2    User replies to applications.
- 2.3.2.1. A.3    When user selects UC-CO03.
  - 2.3.2.1. A.3.1    User uploads survey form includes title, purpose, date of end of survey.

#### 2.3.2.2 Alternative Flows

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- 2.3.2.2. A      When user is parents.
- 2.3.2.2. A.1      When user selects UC-CO01.
- 2.3.2.2. A.1.1      User chats online with other users.
- 2.3.2.2. A.2      When user selects UC-CO02.
- 2.3.2.2. A.2.1      User selects staff who consult with.
- 2.3.2.2. A.2.2      User uploads counseling form includes time to consult, purpose, date to consult.
- 2.3.2.2. A.3      When user selects UC-CO03.
- 2.3.2.2. A.3.1      User replies to surveys.

### **2.3.3 Pre-Conditions**

- 2.3.3.1      User selected UC-02 at UC-00.

### **2.3.4 Post-Conditions**

- 2.3.4.1      User select one of functions.

### **2.3.5 Name of Extension Point**

- 2.3.5.1      UC-SV01: Vote

## **2.4 UC-03: Manage Kindergarten**

### **2.4.1 Brief Description**

This use case describes the functions of managing kindergarten.

<functions>

UC-MK01: Manage Schedule

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UC-MK02: Manage list of students

UC-MK03: Invite Parents

UC-MK04: Manage Class

UC-MK05: Manage Kindergarten Bus

## 2.4.2 Flow of Events

### 2.4.2.1 Basic Flow

- 2.4.2.1. A      When user selects UC-MK01.
- 2.4.2.1. A.1    The system shows kindergarten's schedule calendar.
- 2.4.2.1. A.2    User updates kindergarten's schedule.
- 2.4.2.1. B      When user selects UC-MK02.
- 2.4.2.1. B.1    The system shows list of children and list of children's information.
- 2.4.2.1. B.2    User updates list of children and children's information.
- 2.4.2.1. C      When user selects UC-MK03.
- 2.4.2.1. C.1    User enters number of parents who want to apply for admission.
- 2.4.2.1. C.2    The system sends invitation message.
- 2.4.2.1. D      When user selects UC-MK04.
- 2.4.2.1. D.1    User sets class name. (UC-MC01)
- 2.4.2.1. D.2    User sets class teacher. (UC-MC02)
- 2.4.2.1. D.3    User manages list of class children. (UC-MC03)
- 2.4.2.1. F      When user selects UC-MK05.
- 2.4.2.1. F.1    User sets courses of bus.
- 2.4.2.2. F.2    User updates condition of bus.

### 2.4.2.2 Alternative Flows

Project name	Version: <1.0>
Use Case Specification	Date: <10/22/22>

### 2.4.3 Pre-Conditions

2.4.3.1 User selected UC-03 at UC-00.

### 2.4.4 Post-Conditions

2.4.4.1 User select one of functions.

### 2.4.5 Name of Extension Point

2.4.5.1 UC-MC01: Set Class Name

2.4.5.2 UC-MC02: Set Class Teacher

2.4.5.3 UC-MC03: Manage List of Class Student

## 3. Brief Use Case

This section includes a brief explanation of use cases mentioned in the use case diagram as brief use cases.

### 3.1 UC-MN01: Manage Album

When user is staff, user uploads children's photography.

User leaves comment. (UC-MM01)

When user is parents, user downloads photography in album.

The system shows user(parents) only album of user's child.

User leaves comment. (UC-MM01)

User shares photos in album via SNS.

The album is classified by child.

2.1.4.1, 2.1.4.2, 2.1.4.3, 2.1.4.4, 2.1.4.6, 2.1.4.7 in SRS.

### 3.2 UC-MN02: Manage Bulletin Board

When user is staff, user uploads to-do list. (UC-MB01)

User uploads kindergarten's newsletter. (UC-MB02)

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User writes what children did at kindergarten. (UC-MB03)

User updates information about daily diet. (UC-MB04)

When user is parents, user checks to-do list. (UC-MB01)

User checks kindergarten's newsletter. (UC-MB02)

User checks activities what user's child did at kindergarten. (UC-MB03)

User checks diet information. (UC-MB04)

Extension Points

UC-MB01: Record To-do List

UC-MB02: Kindergarten's Newsletter.

UC-MB03: Record Activity

UC-MB04: Record Diet

### 3.3 UC-MK04: Manage Class

User sets name of class. (UC-MC01)

User sets teacher of class. (UC-MC02)

User manages list of class children. (UC-MC03)

User can manage multiple classes.

The system records user's rest time to guarantee user's break time.

The system sets user's time to use system for not to use phone a lot.

The system shuts down after kindergarten closed.

Extension Points

UC-MC01: Set Class Name

UC-MC02: Change Director

UC-MC03: Change Name of Kindergarten

2.1.7.1, 2.1.7.2, 2.1.7.3, 2.1.8.1 in SRS.

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### 3.4 UC-MC01: Manage Health

User selects one of the following functions, UC-MH01, UC-MH02.

Extension Points

UC-MH01: Inform Medication

UC-MH02: Check Temperature

### 3.5 UC-MC02: Manage Attendance

User selects one of the following functions, UC-MA01, UC-MA02.

Extension Points

UC-MA01: Check Time

UC-MA02: Check Attendance

### 3.6 UC-MC03: Manage Notice

User selects one of the following functions, UC-MN01, UC-MN02, UC-MN03, UC-MN04.

Extension Points

UC-MN01: Record To-do List

UC-MN02: Kindergarten's Newsletter

UC-MN03: Record Activity

UC-MN04: Record Diet

### 3.7 UC-MC04: Track Kindergarten Bus

User tracks bus's current location.

2.1.6.1 in SRS.

### 3.8 UC-MH01: Inform Medication

When user is staff, user checks information of medicine what children take.

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When user is parents, user updates information of medicine what user's child takes.

2.2.1.6, 2.2.1.7 in SRS.

### **3.9 UC-MH02: Check Temperature**

When user is staff, user updates temperature of children.

When user is parents, user checks temperature of user's child.

2.2.1.9 in SRS.

### **3.10 UC-MA01: Check Time**

When user is staff, user updates time when children get to kindergarten.

User updates time when children leave kindergarten.

When user is parents, user checks time when user's child gets to kindergarten.

User checks time when user's child leaves kindergarten.

2.2.1.1 in SRS.

### **3.11 UC-MA02: Check Attendance**

When user is staff, user updates children's attendance state.

When user is parents, user checks children's attendance state.

2.1.1.2 in SRS.

### **3.12 UC-RM01: Report Monthly**

At the beginning of month, system sends attendance report.

2.1.1.3 in SRS.

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### 3.13 UC-MN03: Development Record

When user is staff, user writes children's development record.

When user is parents, user checks development record of user's child.

2.1.1.8 in SRS.

### 3.14 UC-MB01: Record To-do List

When user is staff, user writes to-do list.

When user is parents, user checks to-do list.

2.1.3.4 in SRS.

### 3.15 UC-MB02: Kindergarten's Newsletter

When user is staff, user uploads kindergarten's newsletter.

When user is parents, user checks kindergarten's newsletter.

2.1.3.4 in SRS.

### 3.16 UC-MB03: Record Activity

When user is staff, user writes what children did at kindergarten.

When user is parents, user checks activities what user's child did at kindergarten.

2.1.1.4 in SRS.

### 3.17 UC-MB04: Record Diet

When user is staff, user updates information about daily diet.

The information includes what children eat, food's nutrition information, and allergy-causing warning.



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When user is parents, user checks diet information.

2.1.1.5 in SRS.

### **3.18 UC-MM01: Make Comment**

User leaves a comment at album and to-do list.

Comment can be a small QnA section.

2.1.4.5 in SRS.

### **3.19 UC-CO01: Chat Online**

User chats with other users.

The system keeps the chat record.

The system checks spells immediately.

2.1.3.1, 2.1.3.2, 2.1.3.3, 2.1.3.5 in SRS.

### **3.20 UC-CO02: Reserve Counseling**

When user is staff, the system shows list of reserved counseling.

When user is parents, user uploads counseling form includes time to consult, purpose, date to consult.

2.1.3.2, 2.1.3.3, 2.1.5.1 in SRS.

### **3.21 UC-CO03: Survey**

When user is staff, user uploads survey form includes title, purpose, date of end of survey.

When user is parents, user replies to uploaded survey.

2.1.3.10 in SRS.

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### 3.22 UC-SV01: Vote

When user is staff, user uploads voting form includes title, purpose, date of end of survey.

When user is parents, user replies to uploaded vote.

2.1.3.9 in SRS.

### 3.23 UC-MK01: Manage Schedule

The system shows kindergarten's schedule calendar.

User updates the calendar.

2.1.2.8 in SRS.

### 3.24 UC-MK02: Manage List of Children

User updates list of children and children's information.

2.1.2.6 in SRS.

### 3.25 UC-MK03: Invite Parents

User enters number of parents who want to apply for admission.

The system sends invitation message.

2.1.2.7, 2.1.3.6 in SRS.

### 3.26 UC-MK05: Manage Kindergarten Bus

User sets courses of bus.

User updates condition of bus.

2.1.6.2, 2.1.6.3 in SRS.

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### **3.27 UC-MC01: Set Class Name**

User sets name of class.

2.1.2.4 in SRS.

### **3.28 UC-MC02: Set Class Teacher**

User sets teacher of class.

2.1.2.9 in SRS.

### **3.29 UC-MC03: Manage List of Class Children**

The system shows user list of children in class.

User changes information about the children in the list.

2.1.7.4 in SRS.

### **3,30 UC-AL01: Manage List of Teachers**

The system shows user list of teachers in kindergarten.

User changes information about the teachers in the list.

2.1.2.5 in SRS.

### **3.31 UC-AL02: Change Director**

User changes director of kindergarten.

2.1.2.2 in SRS.

### **3.32 UC-AL03: Change Name of Kindergarten**

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User changes name of kindergarten.

2.1.2.3 in SRS.

### **3.33 UC-RV01: Reservation**

User makes a reservation for uploading comments.

User makes a reservation for uploading to-do list.

2.1.3.7, 2.1.3.8 in SRS.