

# Proposal of INC-Capstone Design1

## Developing Motivation Applications

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Deadline	2020.04.08.

## < Content >

### 1. Outline

1.1 Background .....	3
1.2 Purpose .....	4
1.3 Expect .....	5
1.4 Team .....	5
1.5 Personal capability .....	6

### 2. Debate

2.1 Schedule .....	7
2.2 Topic .....	8
2.3 Topic details .....	9
2.4 Environment .....	10

### 3. Design

3.1 Login screen .....	11
3.2 Sign up screen .....	11
3.3 Main screen .....	12
3.4 Survey screen .....	13
3.5 Challenge screen .....	14,15
3.6 Chat screen .....	15

### 4. Reference

### 5. Next week

# 1. Outline

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Like the results of the psychological test, the project aims to formalize the types of people by combining their behavior, mindset, habits, learning time, and study environment. Collect data to propose efficient learning and provide motivation to perform tasks by presenting rewards in a group.

## **1** Background

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Sometimes you may have found effective study methods. But their methods of learning vary, so their methods are not necessarily effective. Therefore, the goal of project is to find the right learning method according to the formalized type.

This project will help those who are willing to learn by helping them to find a learning method that is suitable for them and making learning more efficient and motivating them to learn.

Ask the user to collect data through a survey. Analyze the type based on the user's gender, age, academic background, sleep time, and learning time, and present efficient learning methods according to the type. After a period of time, ask the user again for a survey to determine the values that have changed. If any of the values have changed, modify them to fit users type, and then proposal a new method of learning.

1. The application allows the user to access a variety of learning methods.
2. Users can use the questionnaire provided by the application. Users can find out how to learn according to user type through the survey. At this point, the application records the type of user and the time the user responded to the survey.
3. After a period of time, application will ask the user again for a re-survey.

Examples :

- 1) How helpful was it?
  - 2) Did the score improve?
  - 3) Which type do you think is better for you?
4. When useru complete the survey, application will update the user's type and provide new appropriate learning method.

If there is anything that can be supplemented in the development contents through a team discussion, we will add it.

### 3 Expect

1. Create a group of family, friends to help develop themselves.
2. The goal is to improve the grades of learning, homework and exercise.
3. Find an efficient way to learn to be interested in your studies.
4. Provide rewards for mission success to gain motivation and fulfillment.

### 4 Team [NAME/Student ID/E-mail/Personal duty]

Name	Student ID	E-mail	Duty	
			Main	Sub
김경수	20124619	studioarena24@gmail.com	Application design Application implement	Database design Database implement
김선비	20175160	rlatjsql12@gmail.com	Analyze learning materials learning algorithm Implement	Web server design Web server implement
구명희	20154215	20154215@chosun.kr	Database design Database implement	Analyze learning materials learning algorithm Implement
박효정	20174302	haha115500@gmail.com	Application design Application implement	Analyze learning materials learning algorithm Implement
장자욱	20174619	615060696@qq.com	Web server design Web server implement	Database design Database implement

Name	Confident Language	Project
구명회	C JAVA PYTHON	4x4 LED cubes Mini air purifiers Smart socket Film management system implementaion Reading status analysis system implementaion Phone number registration system Unicast Routing Implementation Shortest Remaining Time implementation
김경수	C C++ C# JAVA HADOOP PYTHON VISUAL BASIC	Simple Alarms Music players CPU usage measurements Minesweeper Games Lotto Number Prediction System Credit management program Notepad Clipper game
김선비	C JAVA HADOOP	Banking system Class registration system Random data Input/Output application Reservation transmit of kakao talk Weather analysis
박효정	C JAVA	Robot control program with scratch program
장자욱	C JAVA PHP	Book management system Survey of Chinese university rankings labyrinth escape game Unicast Routing Implementation Shortest Remaining Time implementation

## 2. Debate

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### 1 Schedule

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#### 1, 2 week

2020.3.19 ~ 2020.4.03

- Team selection
- Subject selection (1st debate)

#### 3 week

2020.4.02 ~ 2020.4.08

- Application design
- Complement last week's deficiencies. (2nd debate)

#### 4 week

2020.4.09 ~ 2020.4.16

- Application design
- Collection of learning type data
- Complement last week's deficiencies. (3rd debate)

#### 5 week

2020.4.17 ~ 2020.4.23

- Application Implementation
- Collection of learning type data
- Complement last week's deficiencies. (4th debate)

#### 6 week

2020.4.24 ~ 2020.4.30

- Database design
- Collection of learning type data
- Complement last week's deficiencies. (5th debate)

#### 7 week

2020.5.01 ~ 2020.5.07

- Database design
- Collection of learning type data
- Complement last week's deficiencies. (6th debate)

#### 8 week

2020.5.08 ~ 2020.5.14

- Database design
- Study type data analysis
- Complement last week's deficiencies. (7th debate)

#### 9 week

2020.5.15 ~ 2020.5.21

- Database design and implementation
- Study type data analysis
- Complement last week's deficiencies. (8th debate)

#### 10 week

2020.5.22 ~ 2020.5.28

- Database implementation
- Application interlink
- Complement last week's deficiencies. (9th debate)

#### 11 week

2020.5.29 ~ 2020.6.04

- Database implementation
- Application interlink
- Complement last week's deficiencies. (10th debate)

#### 12~15 week

2020.6.05 ~ 2020.7.01

- Prepare presentation and report
- Complement last week's deficiencies. (11~15th debate)

#### 15 week

2020.7.02

- Presentation

김경수

- Refer to best practices of public big data

김선비

- Data processing by type
- Develop structured data collection applications
- Development of Motivational applications
- Developing an issue notification application around you

구명희

- Fall & Loss detection system

박효정

- To distinguish between good and bad for one's pet, Application development

장자욱

- Web site production for comprehensive school information(graduate management system, Weather Forecast, corporate recruitment information, etc)

★★★ Final Topic : Development of Motivational applications ★★★



### 1) Learning method

Q. How will you learn?

Q. Isn't the content too vast?

Q. How should I choose the type?

**A.** Produce a questionnaire based on recent study type tests.

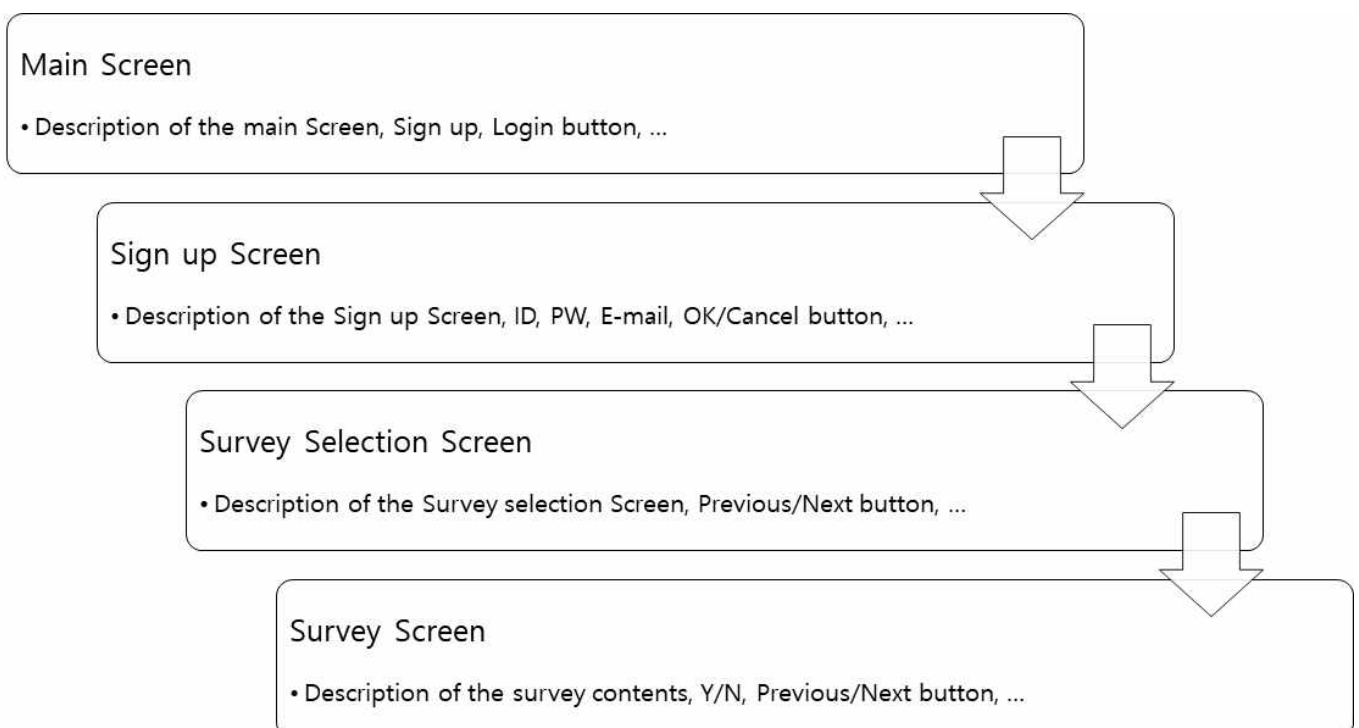
Collect data from the questionnaire you create and categorize your type.

### 2) Additional idea

- ① Increase the variety of learning methods.
- ② Consider that learning methods are not limited to studying, such as exercise, singing, food, and games. Then why don't you recommend an efficient exercise
- ③ Then why don't we recommend an efficient exercise method or a random song?
- ④ Setting Categorize types By criteria, random recommend songs that are similar type

※ We will discuss it every week to correct the deficiencies.

### 3) Application design (2020.3.30)



## 4 Environment

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Eclipse



Android Studio  
3.6.2



MySQL 8.019



Balsamiq  
Mockups 3.5.17



JSP

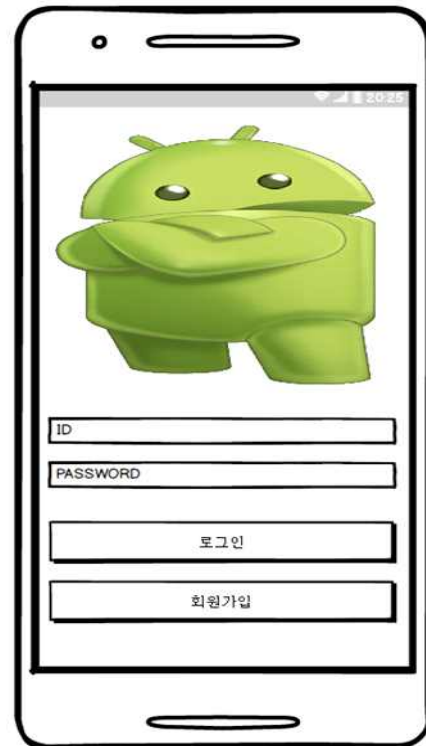
### 3. Application design

#### 1 Login screen

The login screen is designed

with two simple functions:

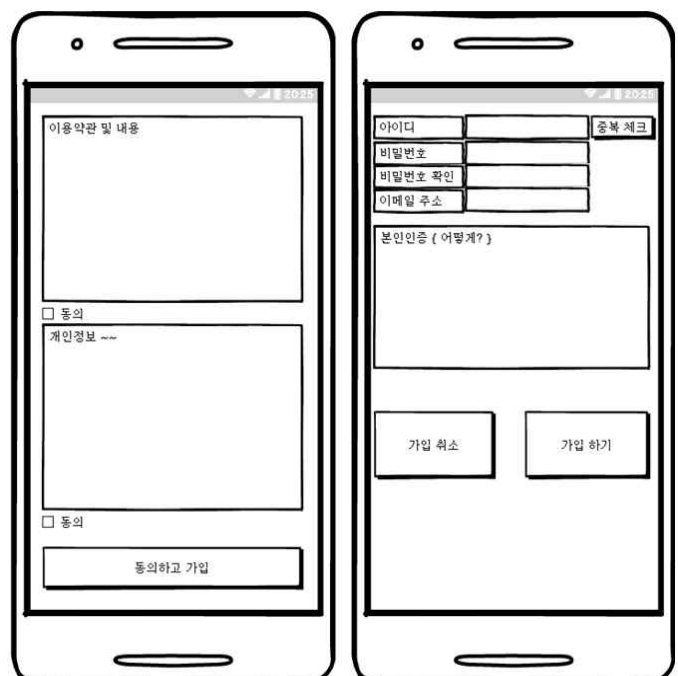
login and sign-up.



#### 2 Sign up screen

This is the screen where you can sign up.

When you create an account, you need to fill out your email address and simple questions to authenticate yourself.

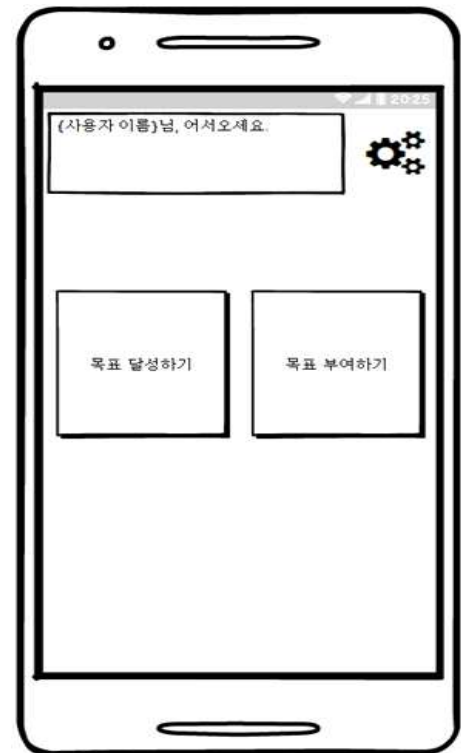


### 3 Main screen 1

This is the screen that user can view when you log in from the login screen.

The user account information is printed in the upper left corner. Users can be modified account information in Settings.

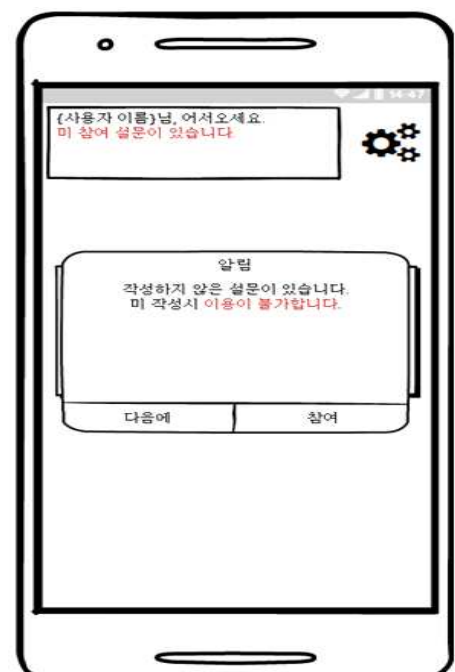
There are buttons for achieving and assigning goals. Please refer to the following page for a description of these buttons.



### 4 Main screen 2

Notifies user that there is a survey that has not been conducted at the top left of the screen and allows user to accept it at the center of the screen.

If user do not participate in the survey, user will be restricted from using the function.



## 5 Survey screen

This is the screen that user can view when user accept the survey.

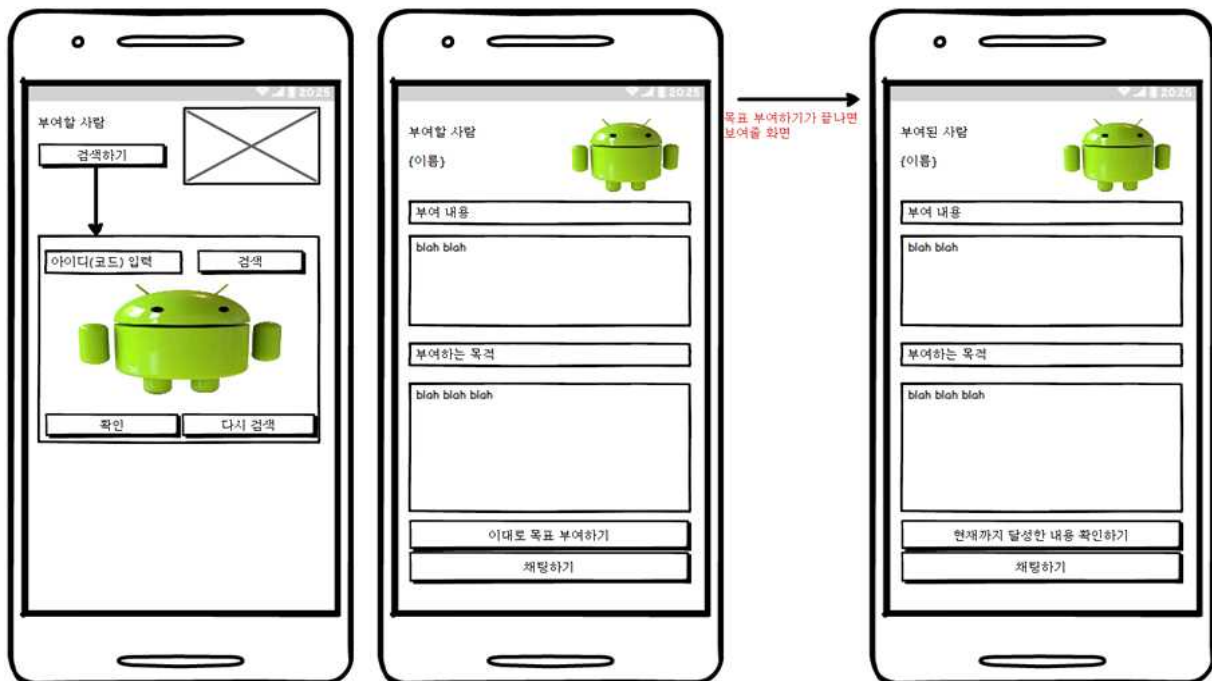
The survey consists 4 question what Multiple-choice.

User cannot complete the survey unless user check all of the items in the survey.

The image shows a mobile application interface for a survey. At the top, there is a text input field with the placeholder text "{사용자 이름}님, 어서오세요:". Below this, the first question is "내가 생각하기에 나의 집중력은" (My concentration as I think). It has five radio button options: "매우 낮음" (Very low), "낮음" (Low), "보통" (Normal), "높음" (High), and "매우 높음" (Very high). The "보통" option is selected. The second question is "나의 하루 평균 공부 시간은" (My average study time per day). It has five radio button options: "30분이하" (Under 30 minutes), "1시간 이하" (Under 1 hour), "2시간 이하" (Under 2 hours), "3시간 이하" (Under 3 hours), and "그 이상" (More than that). The "1시간 이하" option is selected. At the bottom of the screen, there are two buttons: "취소" (Cancel) on the left and "완료" (Complete) on the right.

## 6

## Challenge screen



These features help you find the users to whom you want to assign a goal.

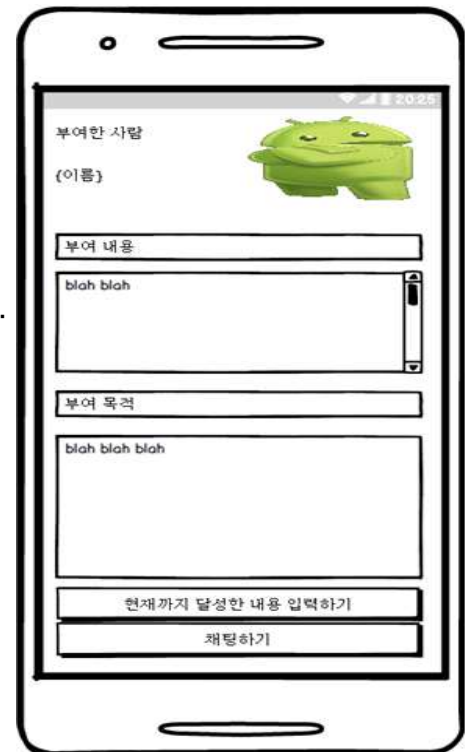
The person you want to target can search for the target's ID, give it a goal, and apply for a chat.

Once the target has been assigned, you will be able to see what's saved, and you will not be able to modify it after a certain period of time.

## 7 Challenge screen

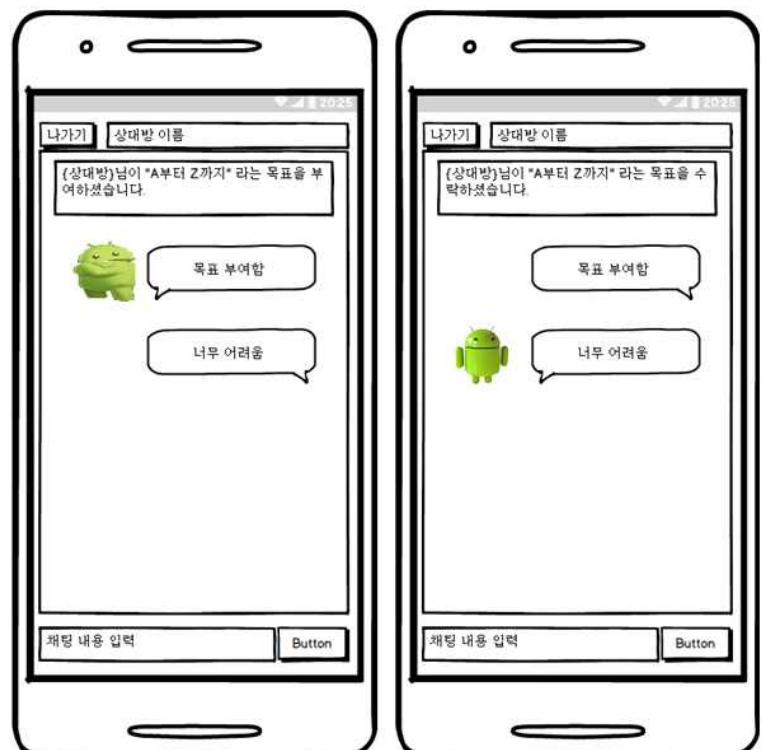
These features help identify goals.

The Chat button allows user to try to chat with the person who has given any-user the goal.



## 8 Chat screen

Users can chat with the users who have given you the goal and those who have achieved it.



## 4. Reference

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1. <https://web.yonsei.ac.kr/yusong/lecture/materials/Materials.Learning.Style.Analysis.pdf>

※ We will add the site that referred to in the future development.

## 5. Next week

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< Chat Room-related ideas (2020.3.30.) >

1. User can have one account per person.
2. Only one account can be accessed in one chat room.
3. Users can save photos or videos used in chat rooms.
4. Users can charge the amount in the application and transfer the charged amount back to user bank account.
5. If you succeed in the mission, you will earn a reward.  
ex) Examples of missions  
personA proposals what he wants to personB, such as an assignment or appointment.  
personA pays compensation for completing the mission presented by personB.  
(pocket money, goods, clothes, etc.)

ex) mission A to B

Period	2020.03.24.~2020.04.24		
Requirements	Record the best and worst of today		
Reward	clothes	Accept	Decline

When B completes the challenge, it achieves rewards through the application system.

※ We will discuss it every week to correct the deficiencies.