

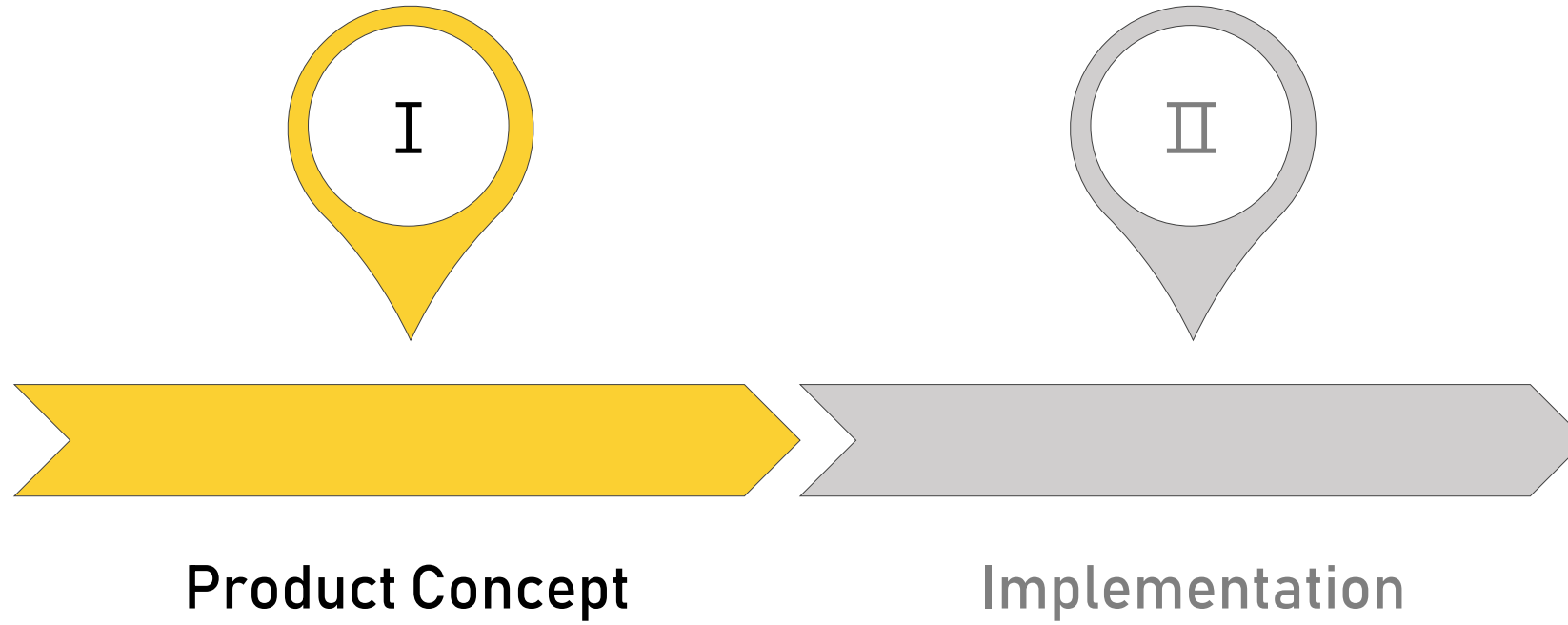


CAPSTONE DESIGN

Daily Care & Dieter

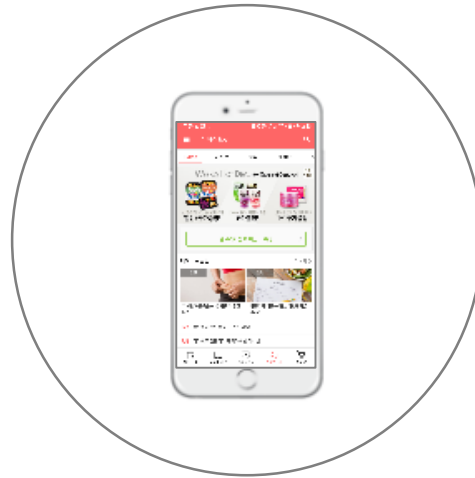
Portfolio by
Choi, Yong Gyu







Food recognition by image

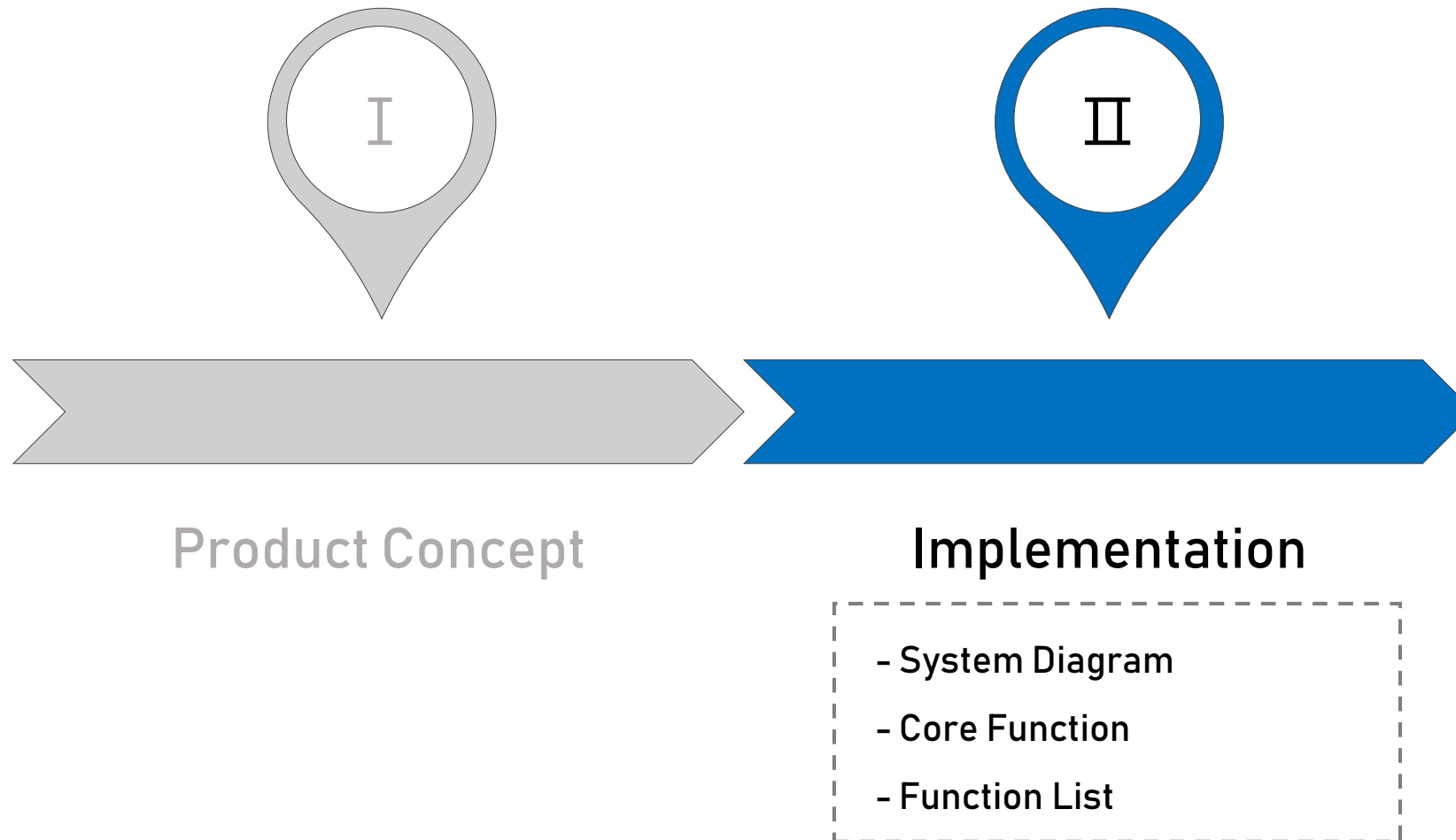


A variety of app functions

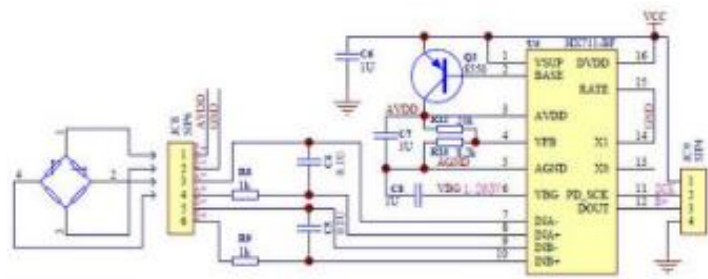


Weighing with smart plates

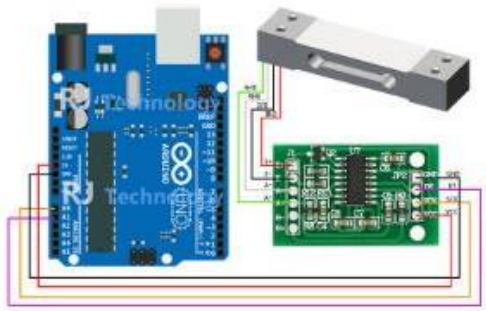
This product is complementing the limits of smart plate and combined with diet application



● Hardware System Diagram



• Schematic weight Sensor Amp



• Schematic of Arduino and load cell



• Final Product

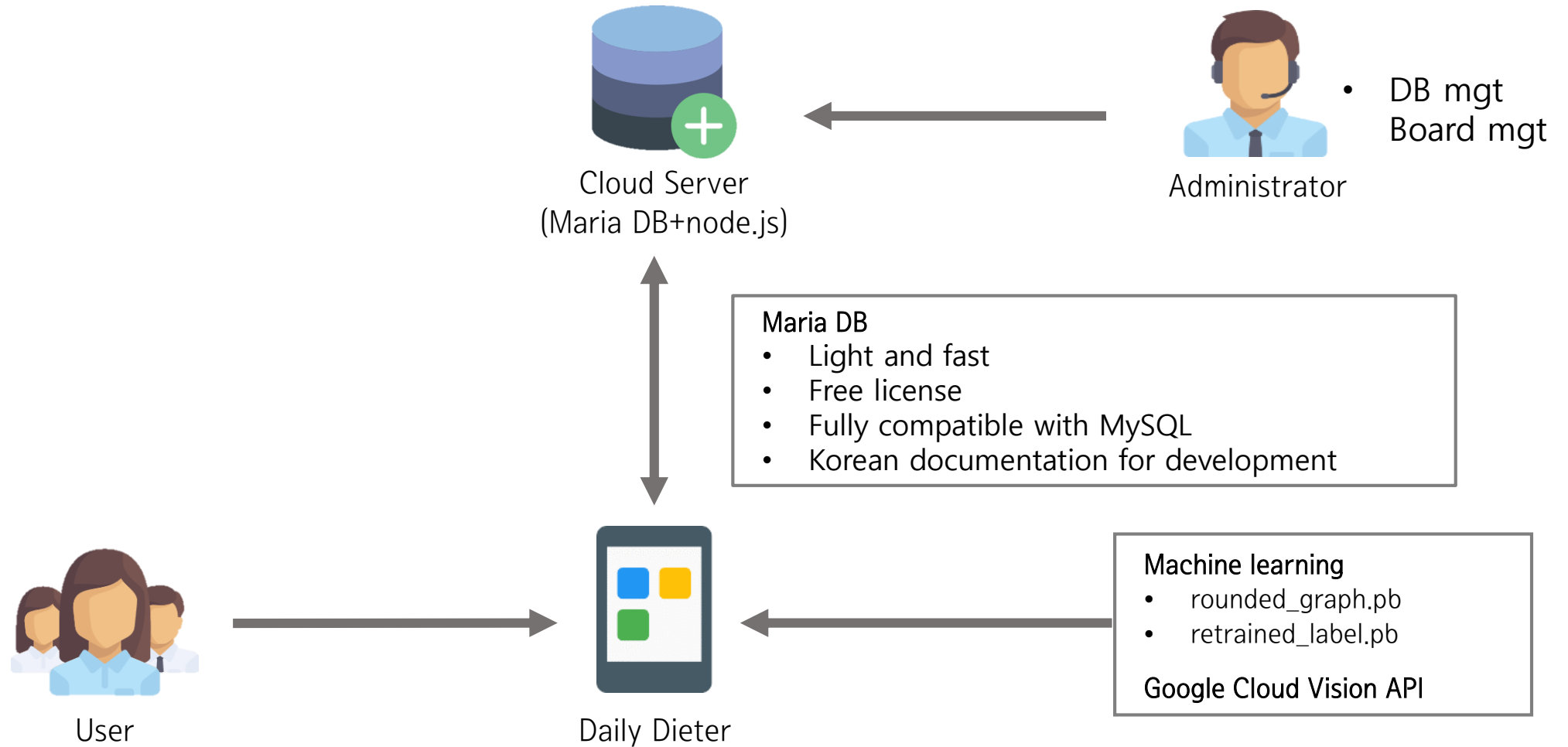
Bluetooth module	Arduino Uno
RXD	D3
TXD	D2
GND	GND
VCC	5V

Load cell	Load cell amp
Black	E+
Red	E-
White	A-
Green	A+

Load cell amp	Arduino Uno
VCC	5V
GDN	GND
DT	3 PIN
SCK	2 PIN

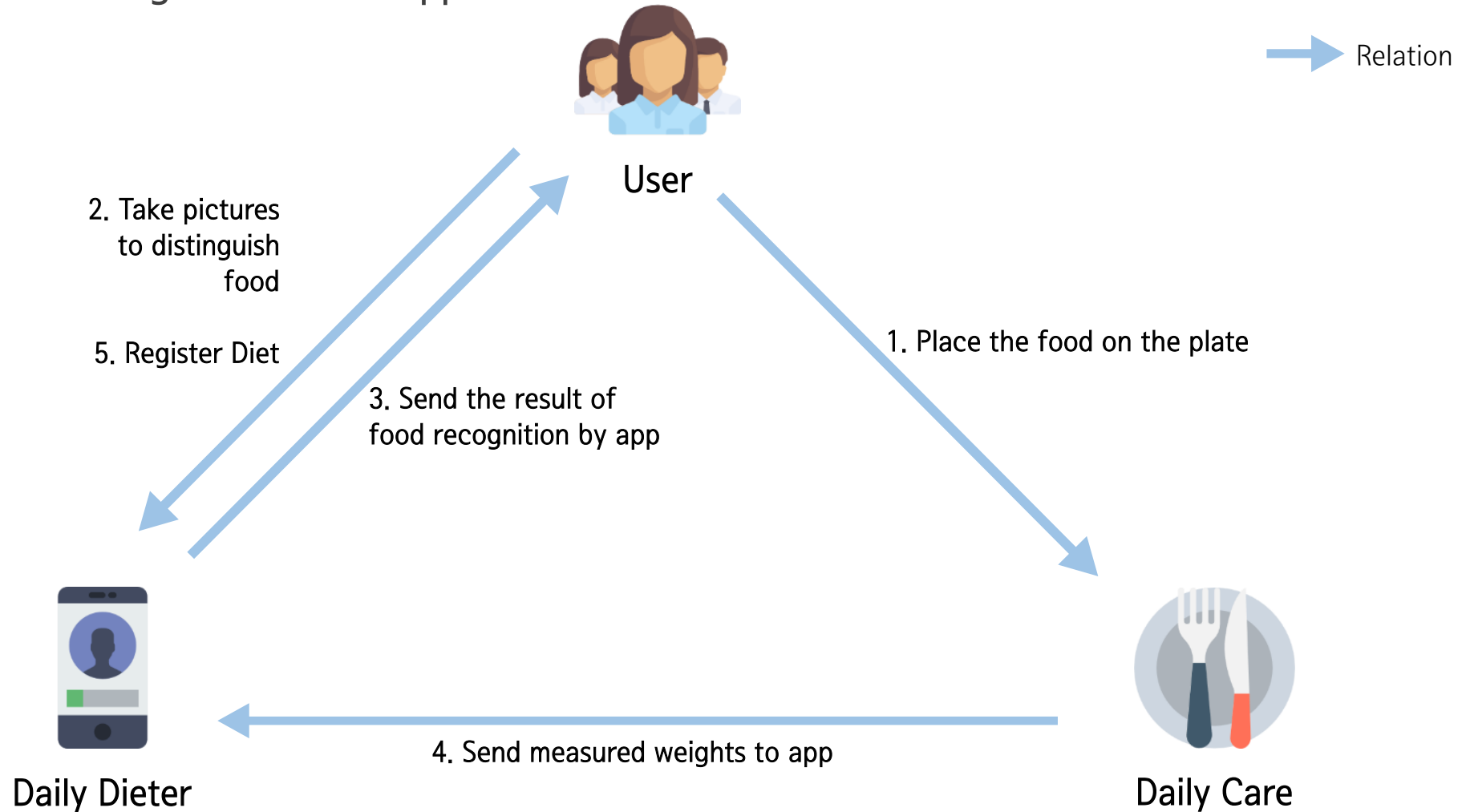


- Software System Diagram



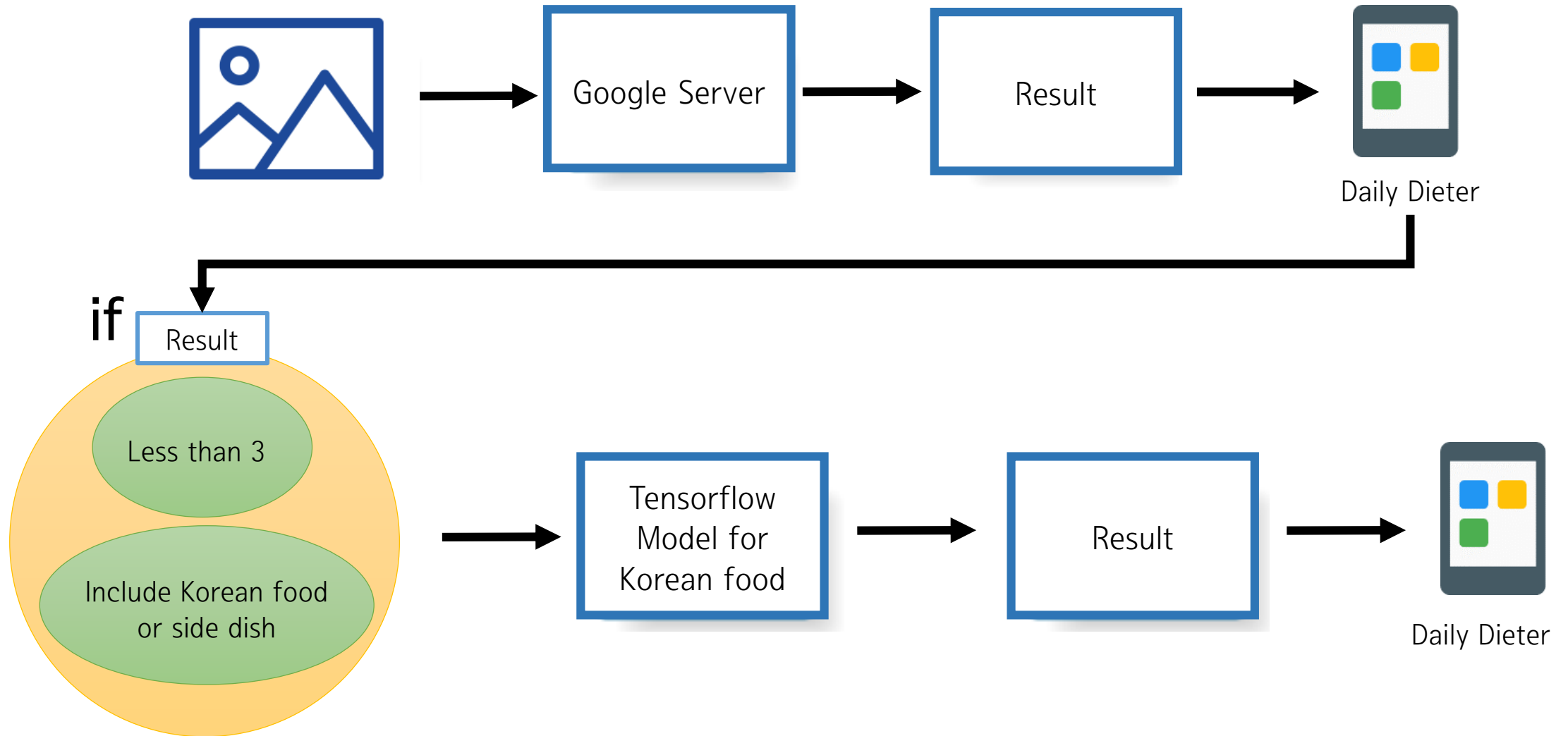


- Core Service - Register Diet on App





- Flow of Image Recognition





- Weight Policy of Daily Care(IoT Device)



Daily Dieter



Daily Care



Original foods



Remained foods



Push re-measure button

Weight of eaten food



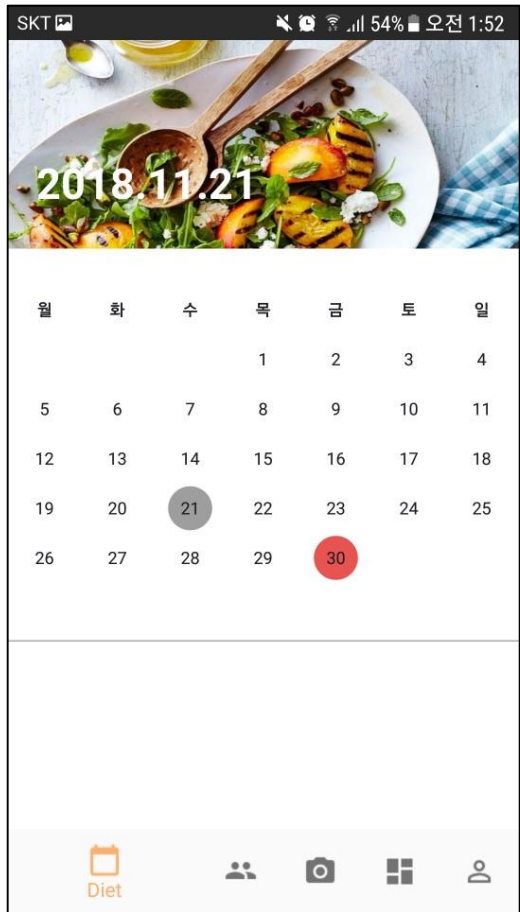
● Personal Functions of Daily Dieter

Function	Implementation	Function	Implementation
UC01: User registration	O	UC10: Check calorie and nutrient statistics	O
UC02: Login & Logout	O	UC11: Notice deficient nutrients	O
UC03: Diet diary registration, update, delete	O	UC12: Read the post & add to wish-list	O
UC04: Taking picture	O	UC13: Registration, update, delete the post and photo	O
UC05: Select image	O	UC14: Reading diet of celebrity & add to wish-list	O
UC06: Select proper food	O	UC15: Reading tip & add to wish-list	O
UC07: Input food name	O	UC16: Searching diet or tip	O
UC08: Weighing	O	UC20: My page	O
UC09: Re-measure the weight	O	UC21: Connecting to blue-tooth	O

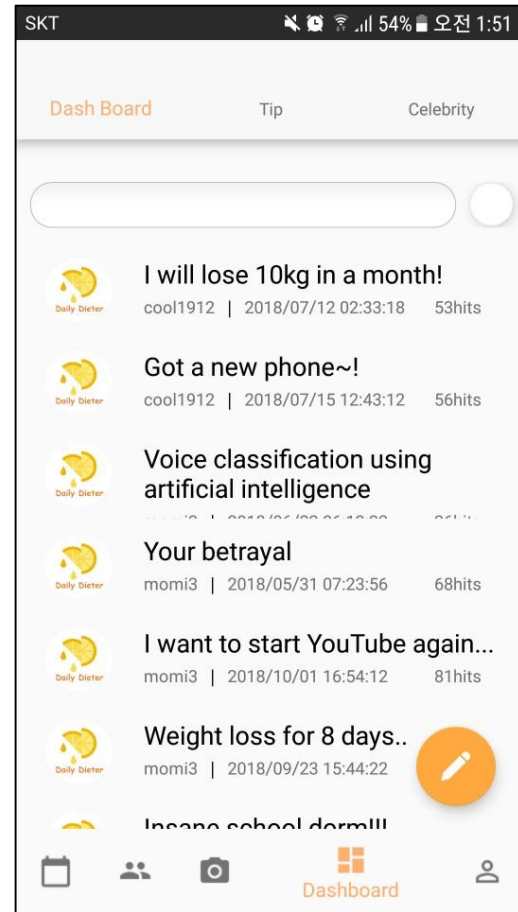
● Group Functions of Daily Dieter

Function	Implementation
UC17: Creating group & participation	O
UC18: Set group goal & mission	O
UC19: Group chatting	O

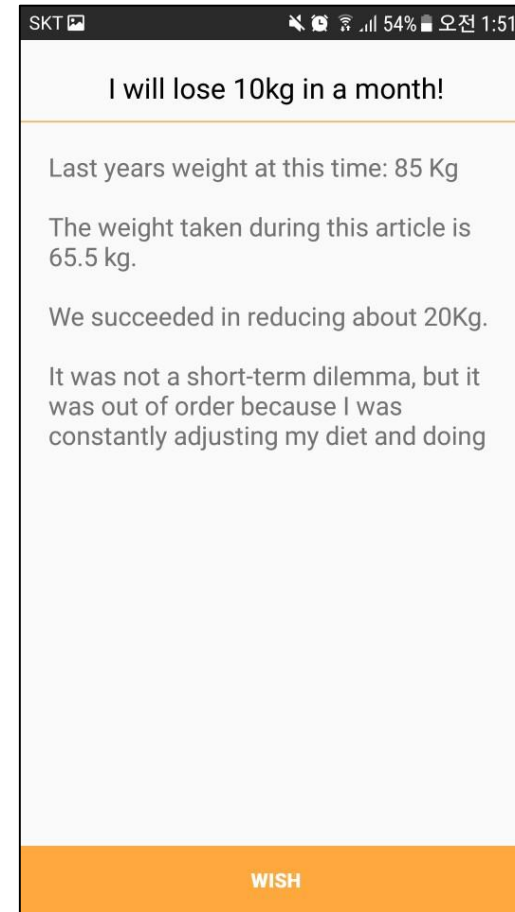
● Screens



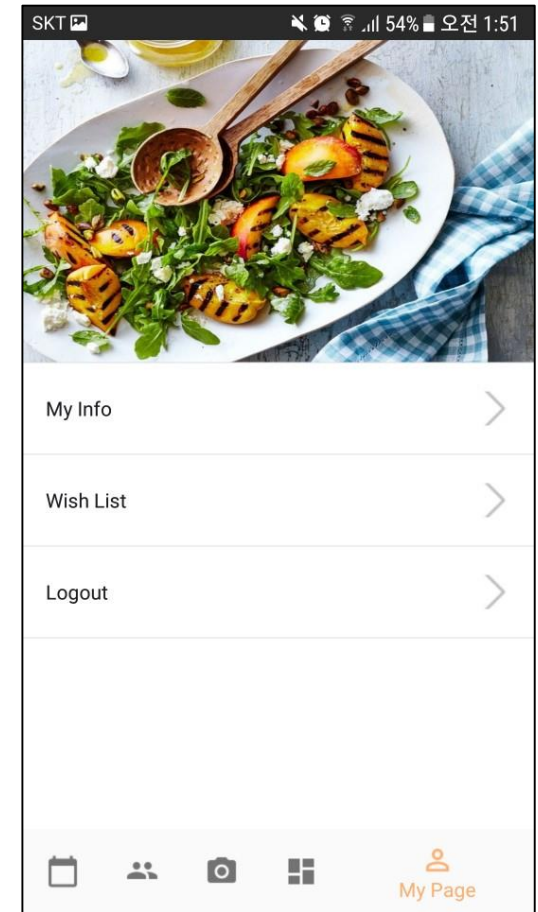
Initial Screen



Post Screen



Selected Post

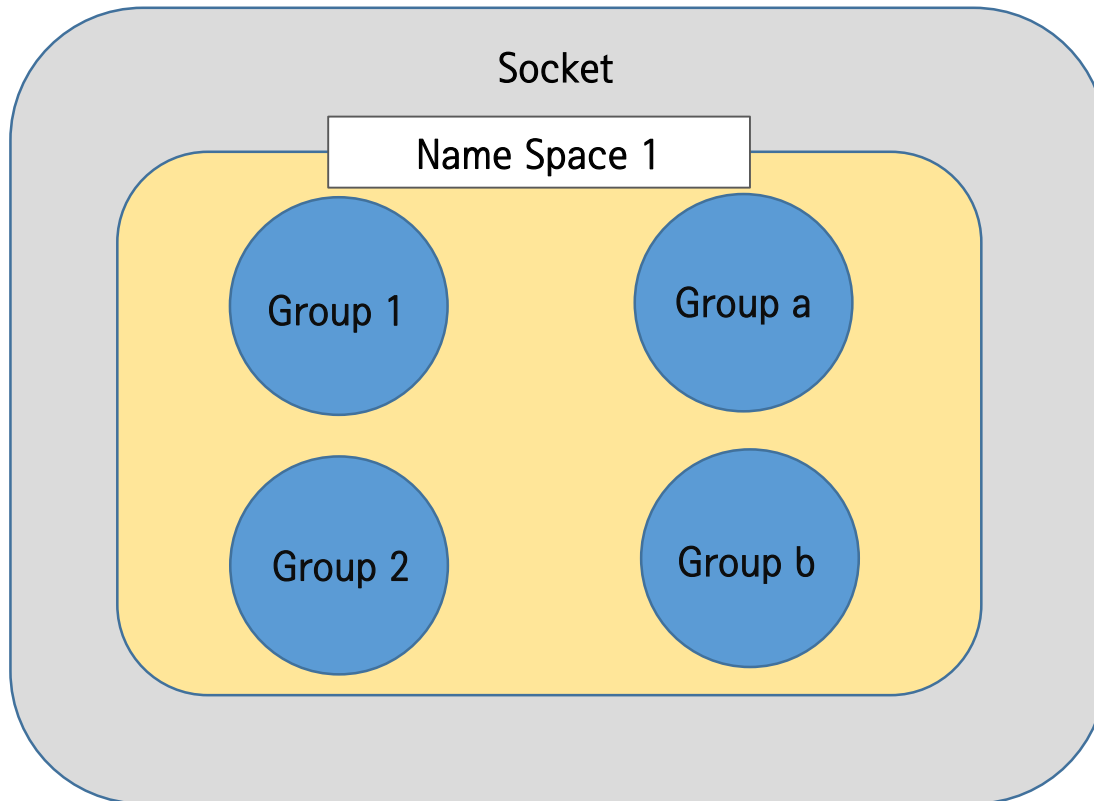


My Page



- Community - Chatting

Socket.io(Node.js) - Structure



- Characteristic
 - Is not mixed with other group's message
 - Is stored on database using the group name



Thank you !