Calorie Wallet

IIE Final Project ｜107034562_呂宛芸

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Question Define (1/2)

What	Be healthier through record the daily calorie consumption.
Who	Those who want to eat effectively.
When	Record before every meal.
Where	Through the mobile phone, everywhere can record the calorie.
Why	Easily forget to access the apps or website to record daily calorie consumption.

Question Define (2/2)

How (key functions)

LINE Bot

Higher accessibility and easy to trigger user behavior

Website

Less storage occupied and both computer and mobile phone can use

CNN

(Convolutional Neural Network) Image Recognition Technology

As-is & To-be (1/3)

As-is：In the past, how do users record their calorie consumption?

Notes

Obstacles

Forget to bring the notes or do not know how many calories the food are?

Website

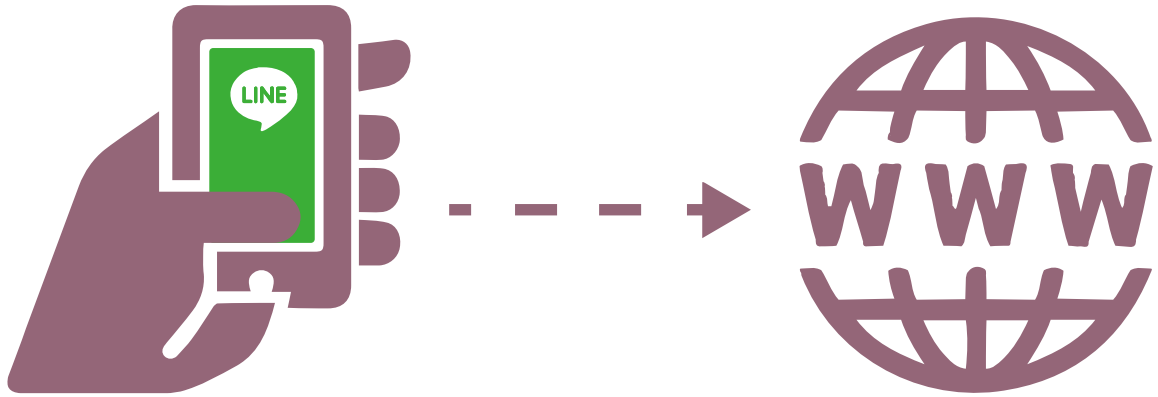
Forget the address of the website (there is no notification to remind the users)

APP

Forget to open the app and occupied the mobile phone's storage, still hard to form the habit.

As-is & To-be (2/3)

To-be：A service combine Chatbot with AI technology and Website service.



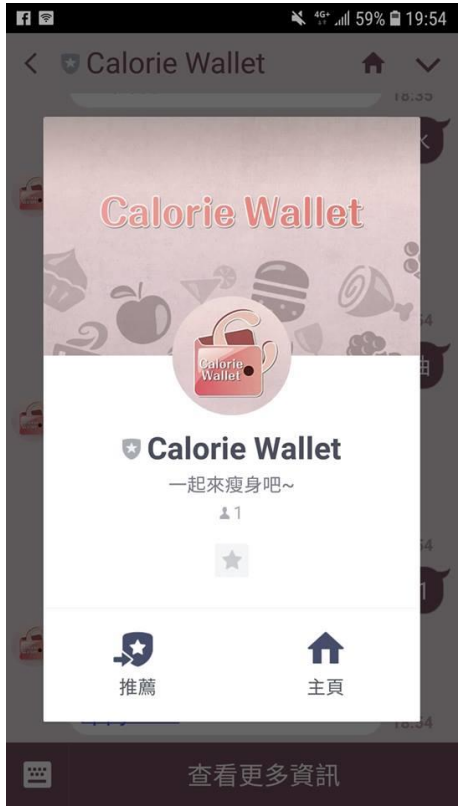
- LINE notifications can increase the usage frequency.
- The threshold of accessing the service becomes lower.
- Innovative functions can catch users' eyes.
- Less storage needed, every device can use. (PC, Android, iOS)

As-is
&
To-be
(3/3)

To-be：TensorFlow Image Recognition

- CNN model (developed by Google)
- Programming language : Python and php
- Show the highest correlation label only
- According to the label, show the calories of the food

Service Flow –LINE Bot(1/3)



The main page of Calorie Wallet Line Bot.

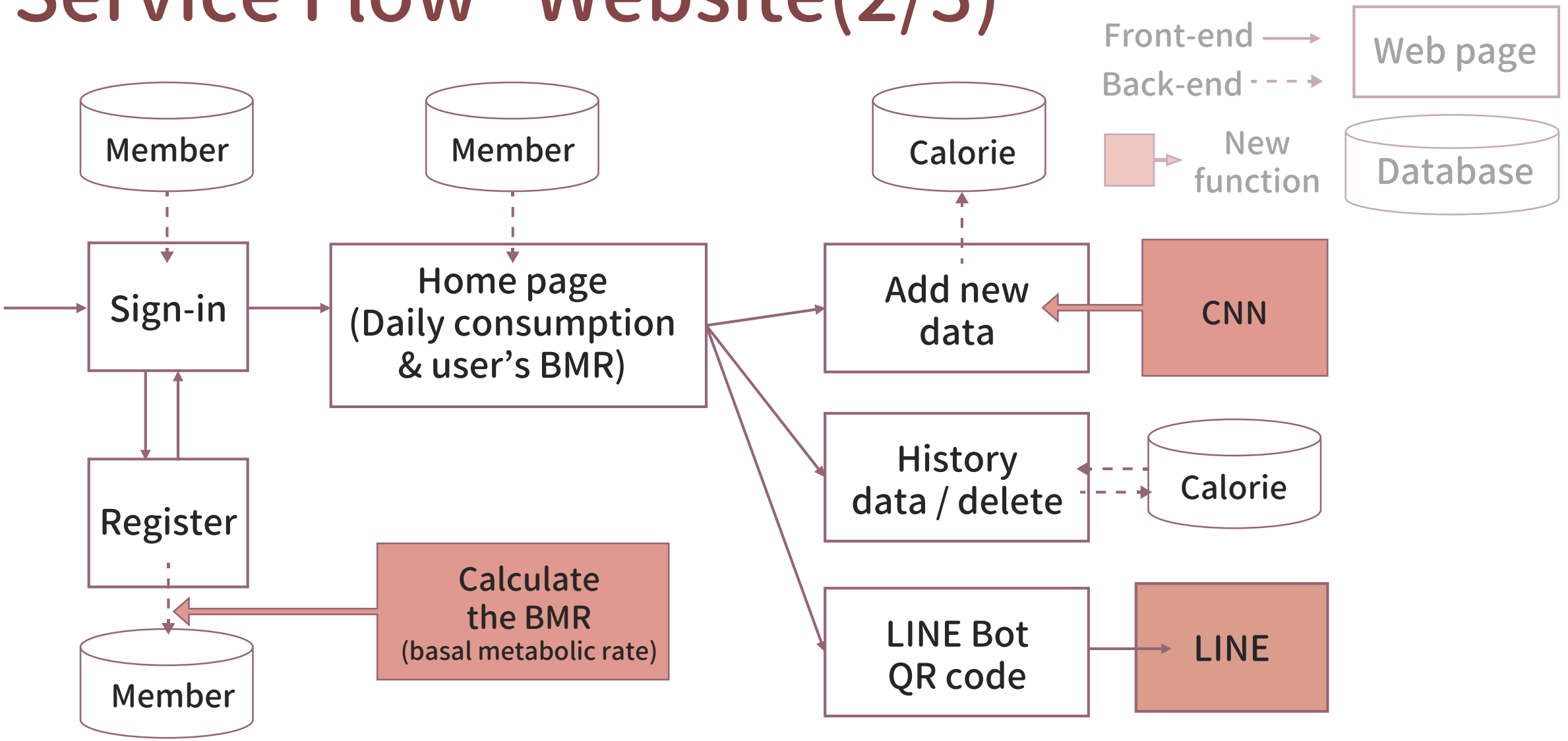
Randomly responds can enhance the interaction between users and Bot.

Click the buttons below can provide users some quick respond.

To website

Click the buttons below can provide users the website address.

Service Flow –Website(2/3)



Service Flow –BMR(3/3)

BMR

(Basal Metabolic Rate) : The rate of energy expenditure per unit time by endothermic animals at rest.

A simplified formulation of calculating BMR:

Male

BMR=[66 + (13.7 * Weight) + (5 * Height) - (6.8 * Age)] *Coefficient

Female

BMR=[655 + (9.6 * Weight) + (1.7 * Height) - (4.7*Age)] *Coefficient

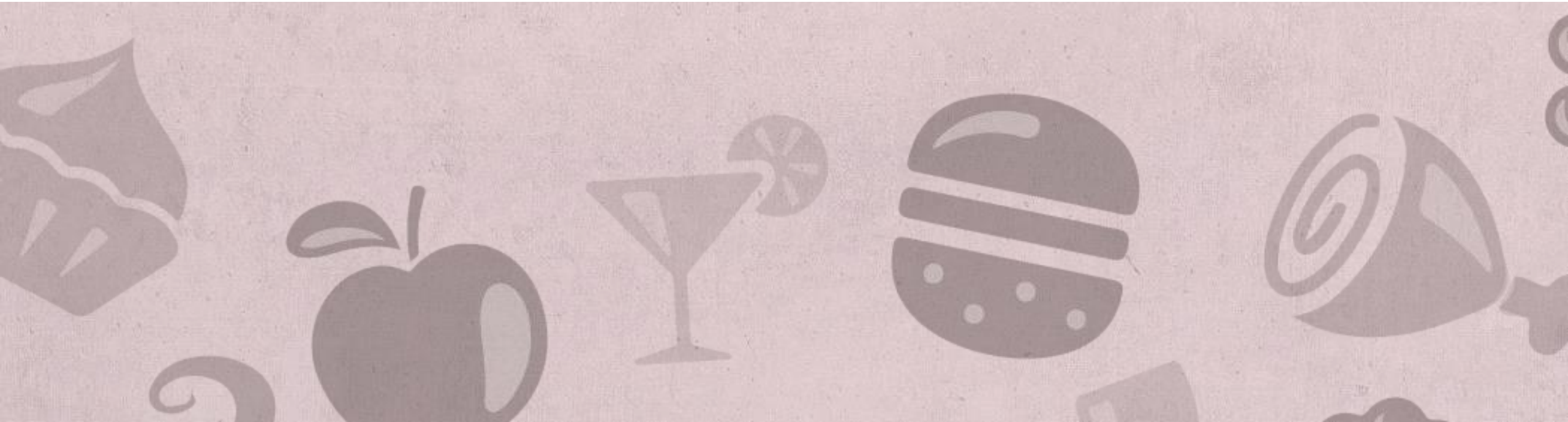
- Coefficient: defined by working type

Coefficient = 1.375➔Light working（exercise 1-2 per week）

Coefficient = 1.55➔Medium working（ exercise 3-5 per week ）

Coefficient = 1.725➔Heavy working（exercise 6-7 per week）

Demonstration



Conclusion & Limitation

Conclusions

- The combination of chatbot and website can help users enjoying the service easily.
- Chatbot can provide more interaction with users than the original ways.
- Compared to APPs, the new design service system's flexibility and usability become greater.
- The application of new technology can bring some special user experience.

Limitations

- Waiting time of uploading the file is too long.
- The CNN model TensorFlow provided is not mature yet.
- Calories of each food cannot show automatically.
- The amount of the food is hard to estimate through photos.

Thanks!