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Assignment 3

Kit405 Programming for Intelligent Web Service & Application

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# Introduction

The project is about an intelligent conversational system. Base on user input, by speech or typing, the system will give a suitable feedback. Currently, the system already contains the basic greeting ability, news searching, indicating user location, indicating the favorited restaurants base on the users’ previous chatting history and emotion detecting.

# API Using List

Google Mao API:

It is used to show use’s location.

Google Place API

The API is used to shows about the near restaurant

Custom Searching API

The API provide a searching engine of ABC news, which can provide the later news in ABC news.

NLP:

It is used to identity non words, which can be used to mining users’ opinion.

Text Analysis API:

The API is used to mining users’ opinion.

# Dialog Script

When user input the regard sentence, such as ‘Hi’, ‘How are you’. The conversation system will provide a regard feedback as well.

If user has some interesting about news, he/she should ask system to search news. Meanwhile, if user has interesting about special topic, such as sport news or entertainment news, the system will provide a list of relative topics as well from ABC news website as well.

If people want to know they location, they should input key word ‘my location’. Then, system will try to get user’s location and show in google maps. Meanwhile, if user want to know the near restaurants, they just need to input key word, ‘near restaurants’ or ‘dinner’. Then, the system will show the recommended restaurant base on days of week and user’s past behaviour.

In the end, even though the system may cannot understand the order from user, it still can detect users’ emotion and give a suitable feedback.

# AI techniques

In the project, decision tree is used in the project. Base on the history of the place, where user ate dinner, starting point and day of week, the system already be embeded a decision tree, which can provide a suitable restaurants’ recommendation from surrounding restaurant.

Meanwhile, even though the system may cannot understand the order from user, it still can detect users’ emotion and give a suitable feedback.

# Users’ data

The user data come from ‘dinner\_pattern.csv’, which is download from mylo.

# Current Issue of the Conversational system

The current issue of the conversational system is position detection. About restaurant recommendation function, the system give recommended restaurant base on day of week, but it is hard to give the recommended place base on users’ location. On the other word, user’s location cannot be a condition of recommended restaurant.

# Screen Recording Link

<https://youtu.be/qM5qprz13oU>