Assignment 1: Building a Chatbot using Microservices as Back-end

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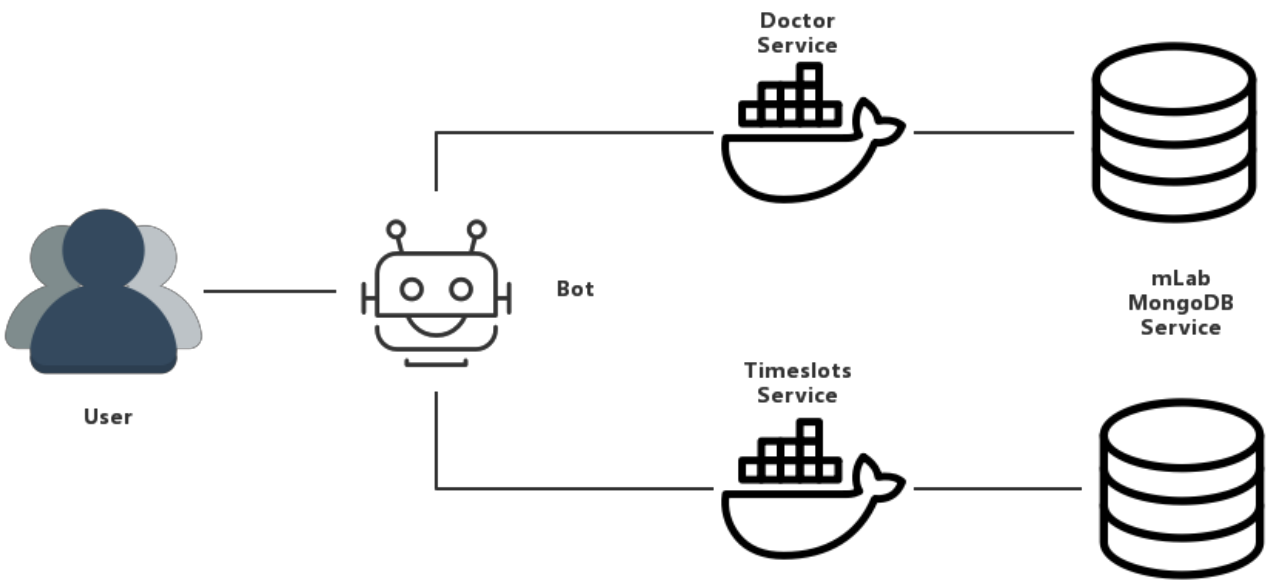
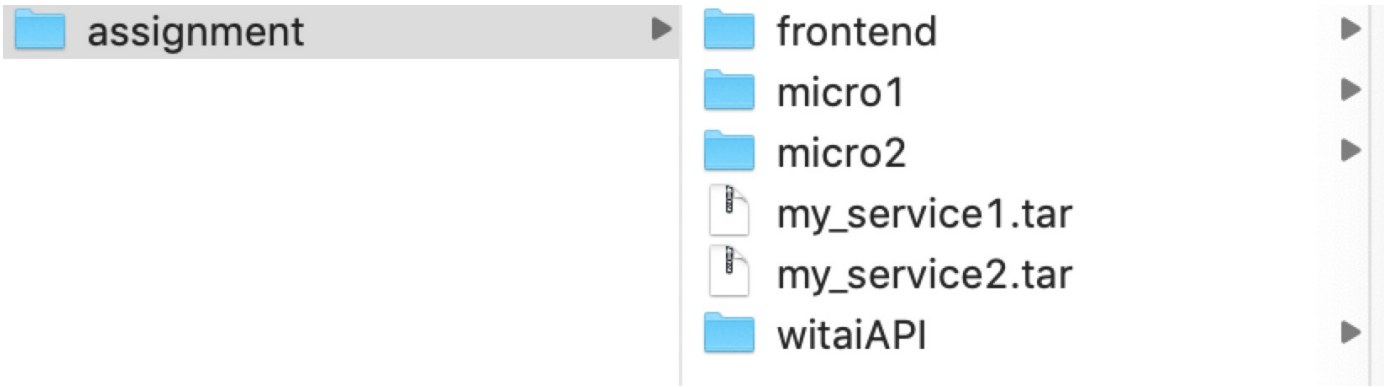


The dentist and Timeslot services are deployed in two docker container as microservices and the Bot communicates with them through REST API calls. The data is stored in two different MongoDB databases with required doctor and timeslots information.

For deployment:

1. Go to assignment folder and load the docker images:



```
➜ assignment docker load --input my_service1.tar
Loaded image: my_service1:latest
➜ assignment docker run -p 5002:5000 -t my_service1
 * Serving Flask app "__init__" (lazy loading)
 * Environment: production
```

docker load --input my_service1.tar
docker run -p 5002:5000 -t my_service1

```
➜ assignment docker load --input my_service2.tar
Loaded image: my_service2:latest
➜ assignment docker run -p 5001:5000 -t my_service2
 * Serving Flask app "__init__" (lazy loading)
 * Environment: production
```

docker load --input my_service2.tar
docker run -p 5001:5000 -t my_service2

2. Go to witaiAPI folder and run the bot service:

```
➜ witaiAPI cd app/demo
➜ demo ls
__init__.py static      v1
➜ demo python3 __init__.py
 * Serving Flask app "__init__" (lazy loading)
 * Environment: production
```

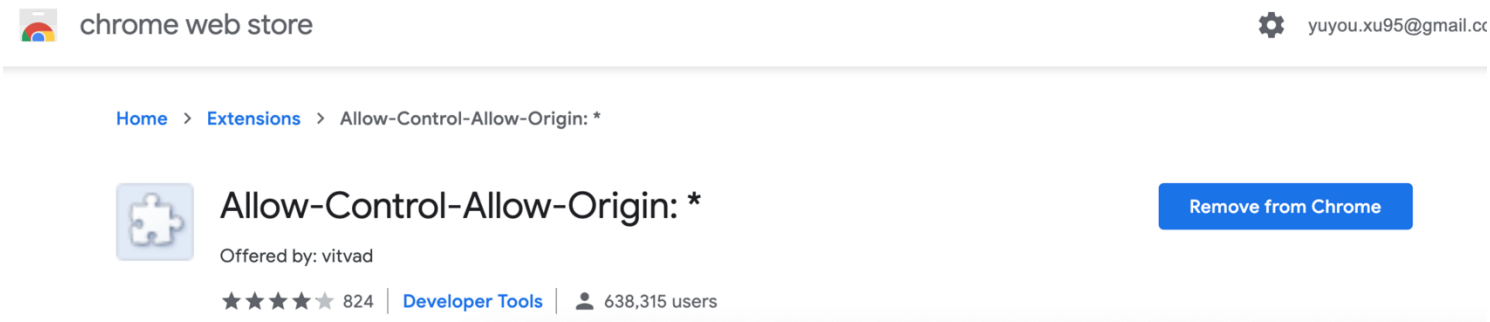
python3___init__.py

3. Run the front-end (React.js):

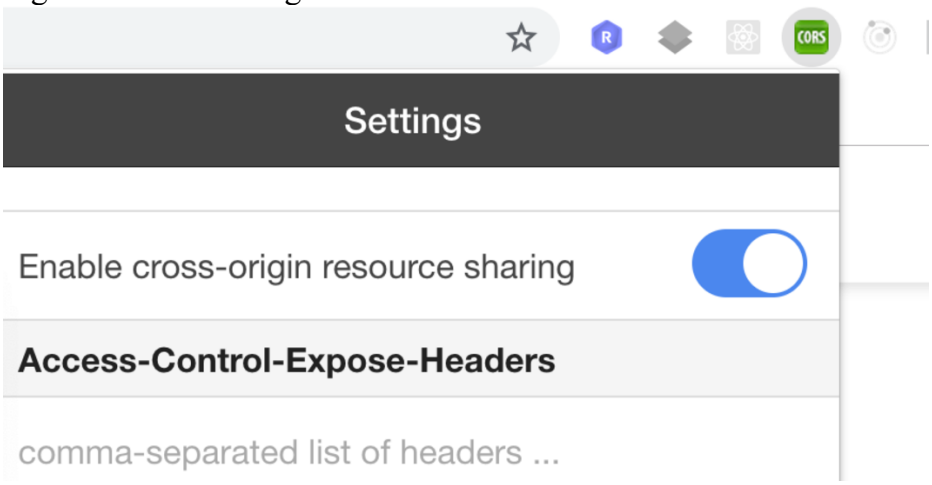
```
➜ assignment cd frontend
➜ frontend git:(master) ✗ npm start
```

npm install (Install all the dependencies.)
npm start

4. Install chrome plugins to avoid CORS policy

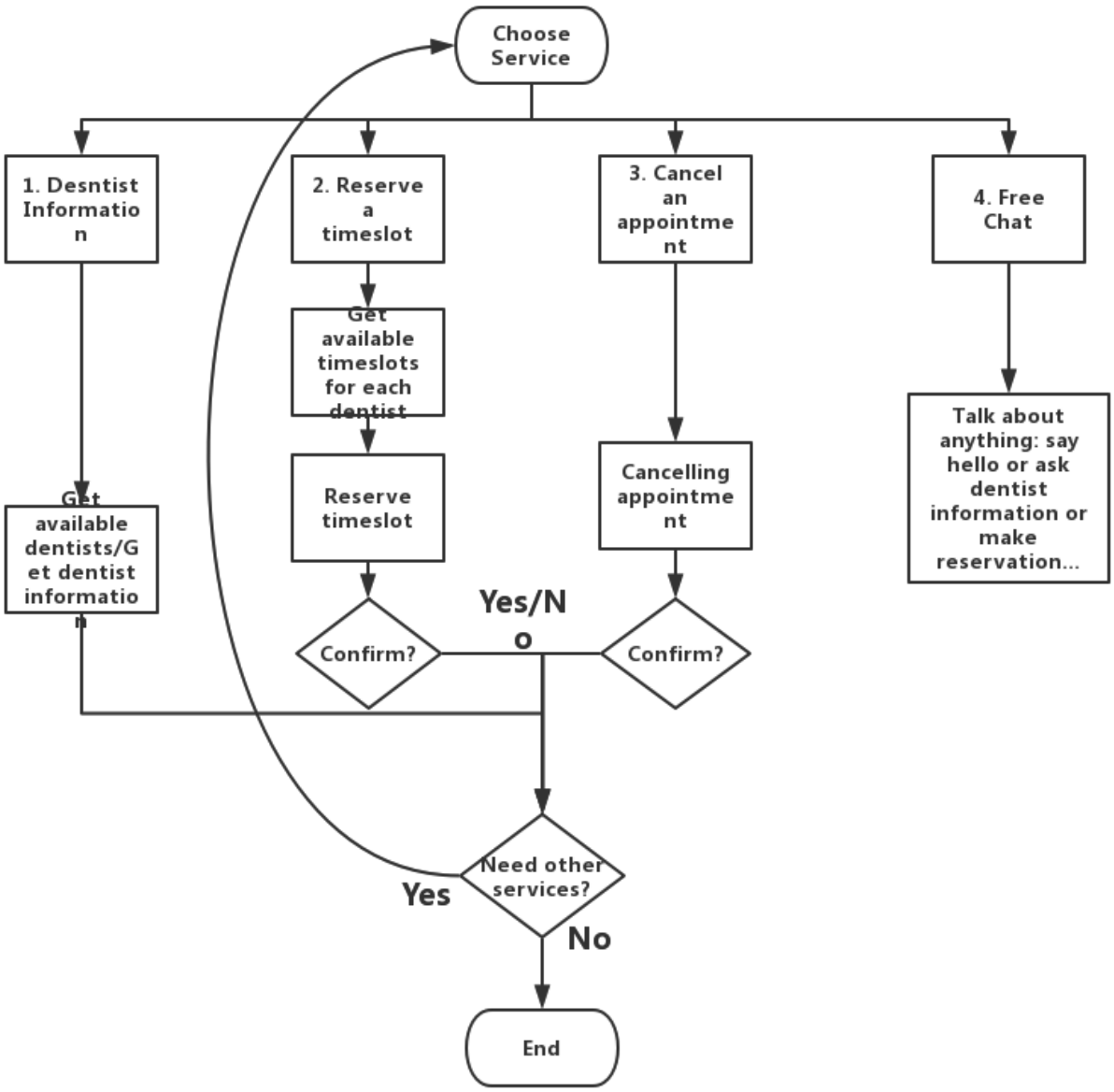


Enable cross-origin resource sharing:



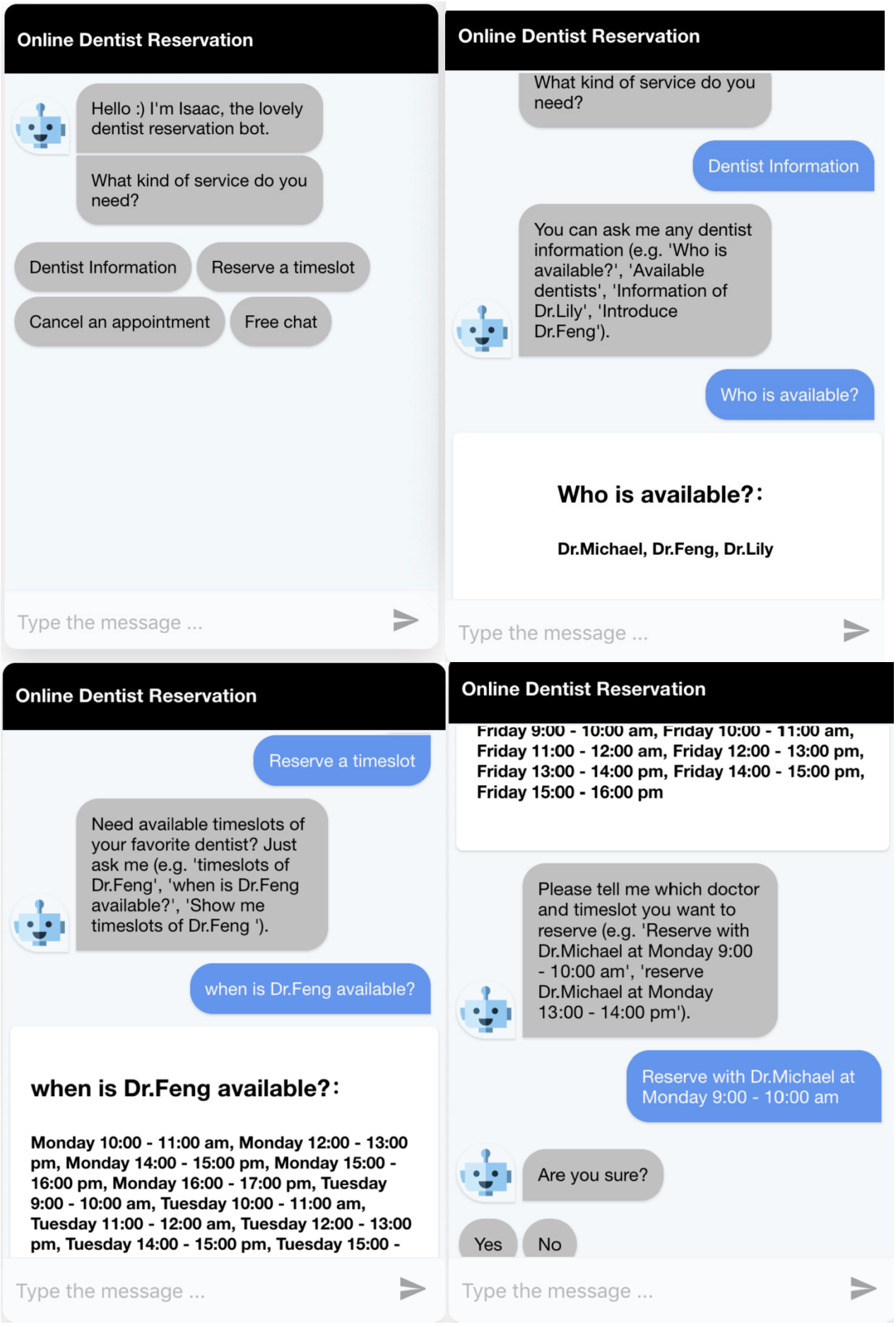
Then the bot service is online and can respond correctly.

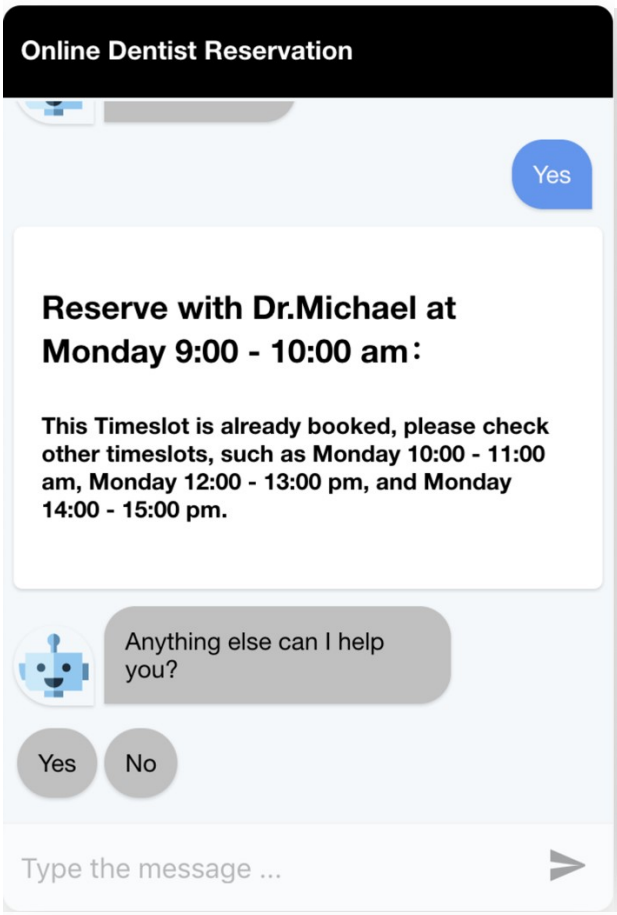
Here’s the logic for the chatbot:

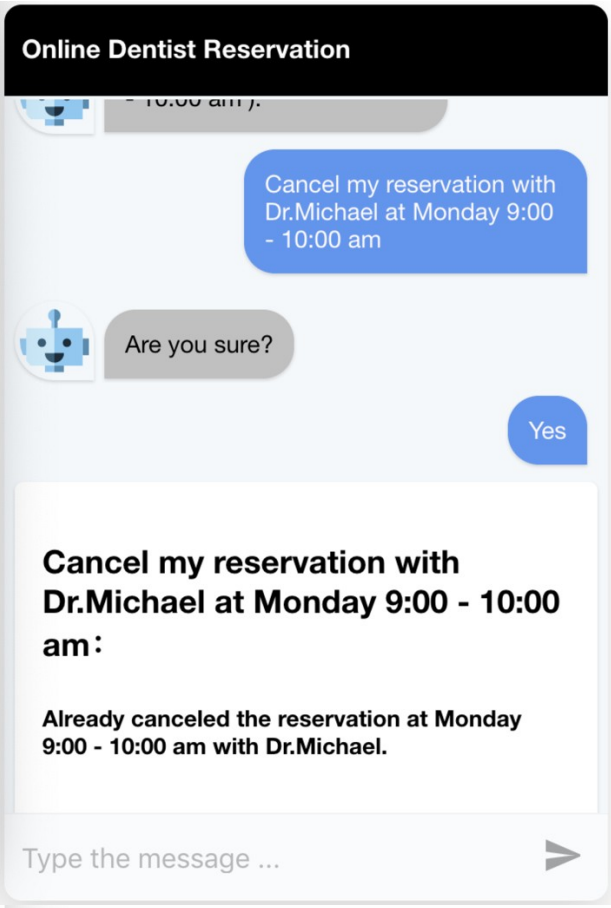


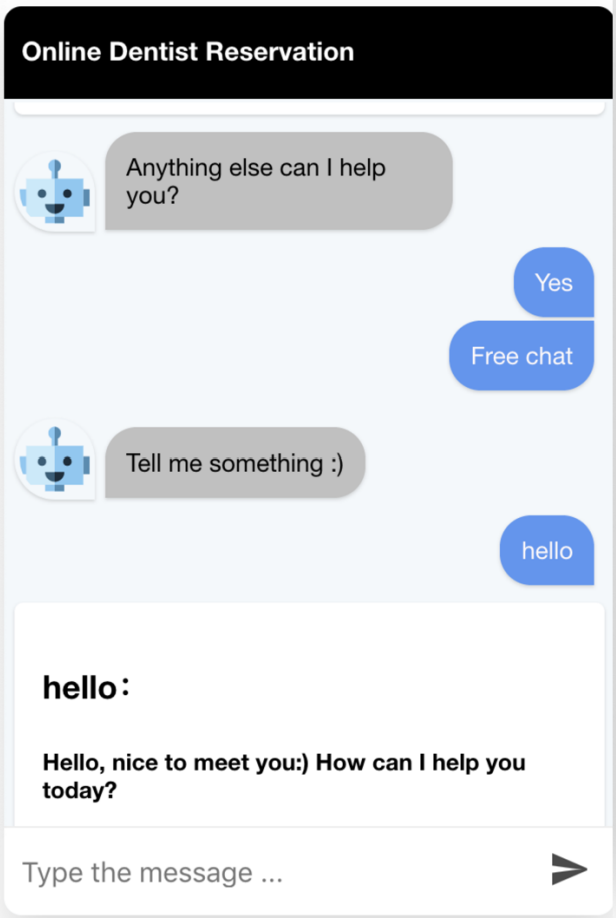
Since the bot service is based on wit.ai, usually user need to type sentences to chat with it (e.g. “when is Dr.Feng available?”)

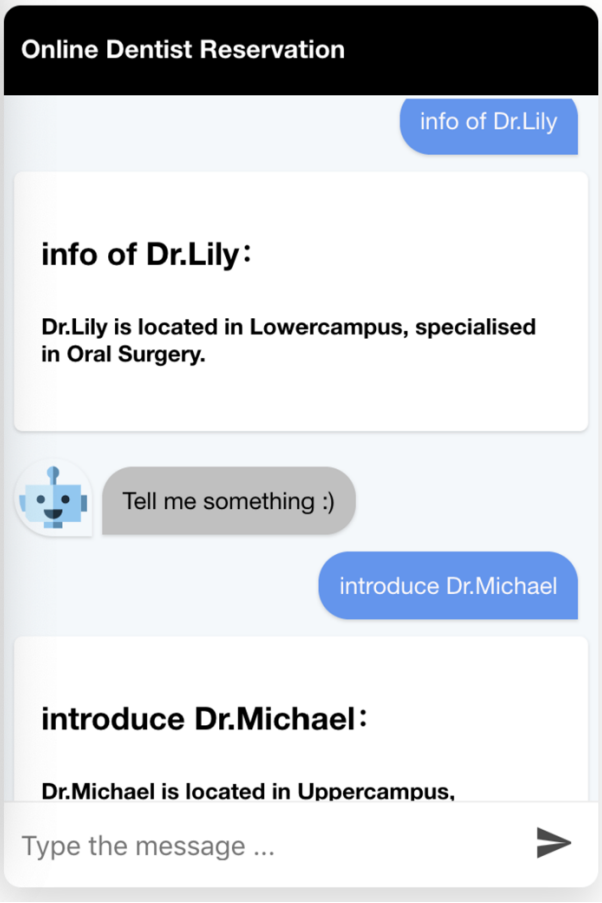
Demo of the chatbot:




Online Dentist Reservation
Yes
Reserve with Dr.Michael at Monday 9:00 - 10:00 am:
This Timeslot is already booked, please check other timeslots, such as Monday 10:00 - 11:00 am, Monday 12:00 - 13:00 pm, and Monday 14:00 - 15:00 pm.
Anything else can I help you?
Yes
No
Type the message ...


Online Dentist Reservation
Cancel my reservation with Dr.Michael at Monday 9:00 - 10:00 am
Are you sure?
Yes
Cancel my reservation with Dr.Michael at Monday 9:00 - 10:00 am:
Already canceled the reservation at Monday 9:00 - 10:00 am with Dr.Michael.
Type the message ...


Online Dentist Reservation
Anything else can I help you?
Yes
Free chat
Tell me something :)
hello
hello:
Hello, nice to meet you:) How can I help you today?
Type the message ...


Online Dentist Reservation
info of Dr.Lily
info of Dr.Lily:
Dr.Lily is located in Lowercampus, specialised in Oral Surgery.
Tell me something :)
introduce Dr.Michael
introduce Dr.Michael:
Dr.Michael is located in Uppercampus,
Type the message ...