Deployment Instructions

Note: Please do run **Dentist service** and **timeslots service** in the respective docker container because paths have been set up.

Dialogflow service:

Go to dialogflow folder:

Type the following command in the terminal:

pip install -r requirements.txt

python dialogflow.py

Dentist service:

In the dentist folder, go to app folder, there is a Dockerfile.

Type the following commands in the terminal:

docker build -t dentist .

docker run -p 8000:8000 -it dentist

Timeslots service:

In the timeslot folder, go to app folder, there is a Dockerfile.

Type the following commands in the terminal:

docker build -t timeslot .

docker run -p 4000:4000 -it timeslot

Frontend service:

Go to frontend folder:

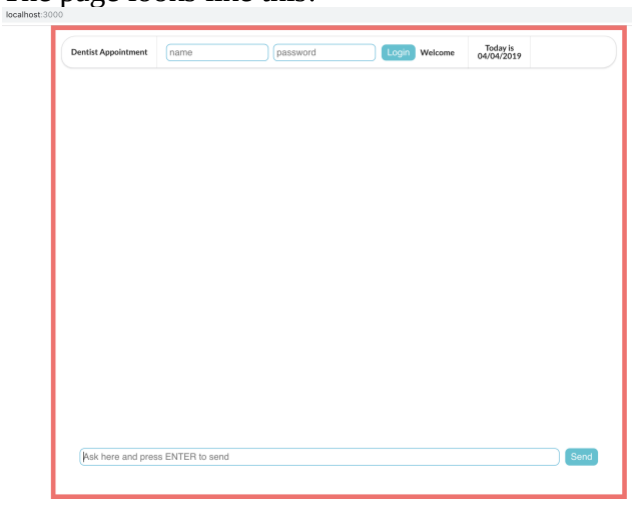
Type the following commands in the terminal:

npm install

npm start

Then go to http://localhost:3000/. The username is **1234**. The password is **admin**.

The page looks like this:



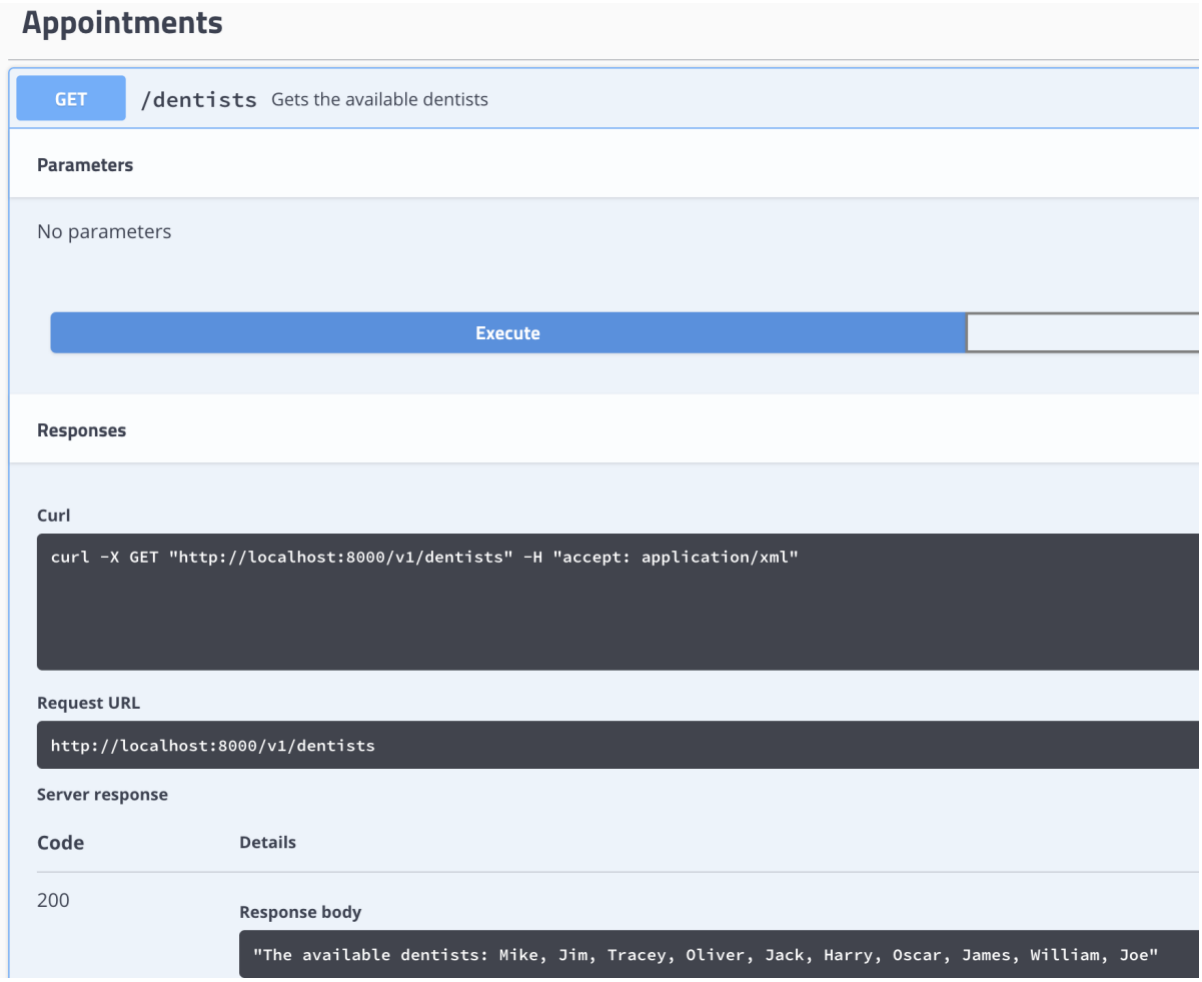
Endpoints and sample inputs and outputs

Note: Because I have added authentication service, when all the services are turned on, and it will not be allowed to get the data using URL only or inputting values in the Swagger document without login in the frontend page. I got the following screenshots of each example before adding authentication. Please do use frontend page for testing.

Swagger for dentist: http://localhost:8000/static/swagger-ui/index.html

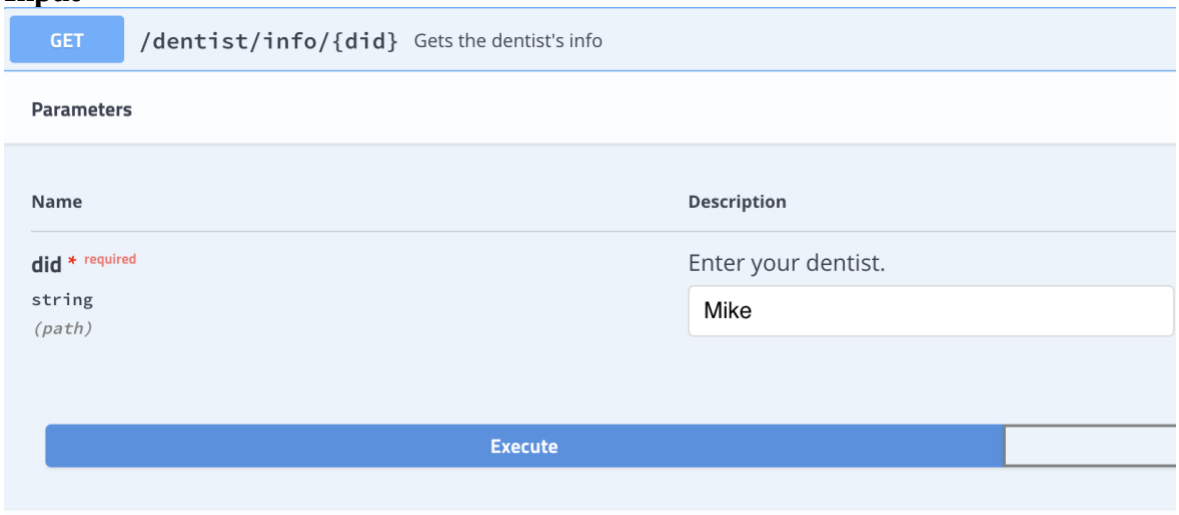
Swagger for timeslot: http://localhost:4000/static/swagger-ui/index.html

1: **Get all available dentists**

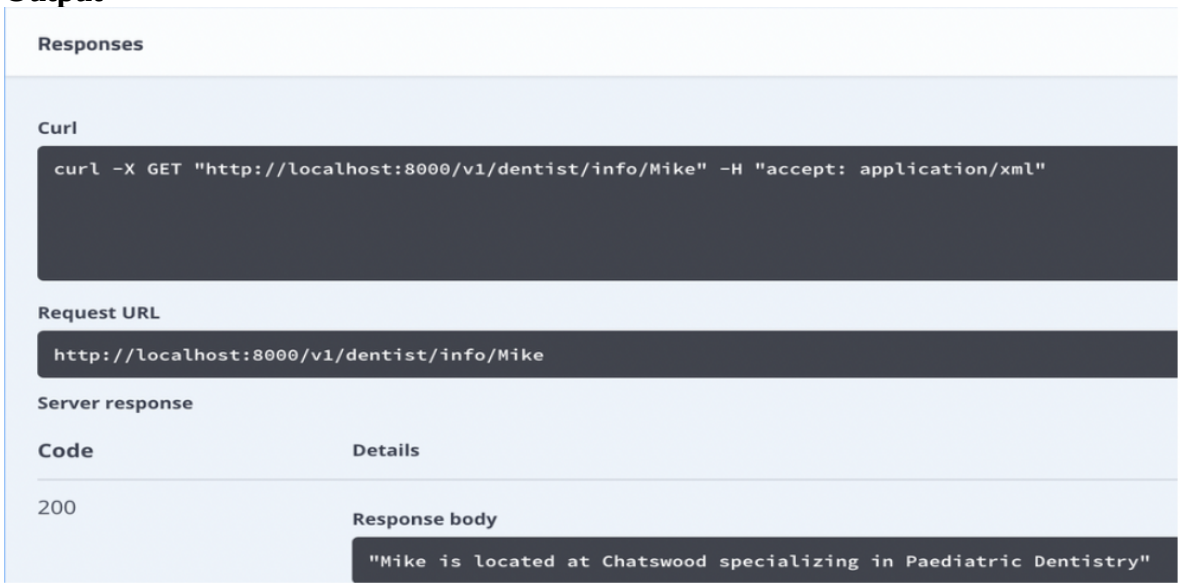


2: **Get dentist information**

Input

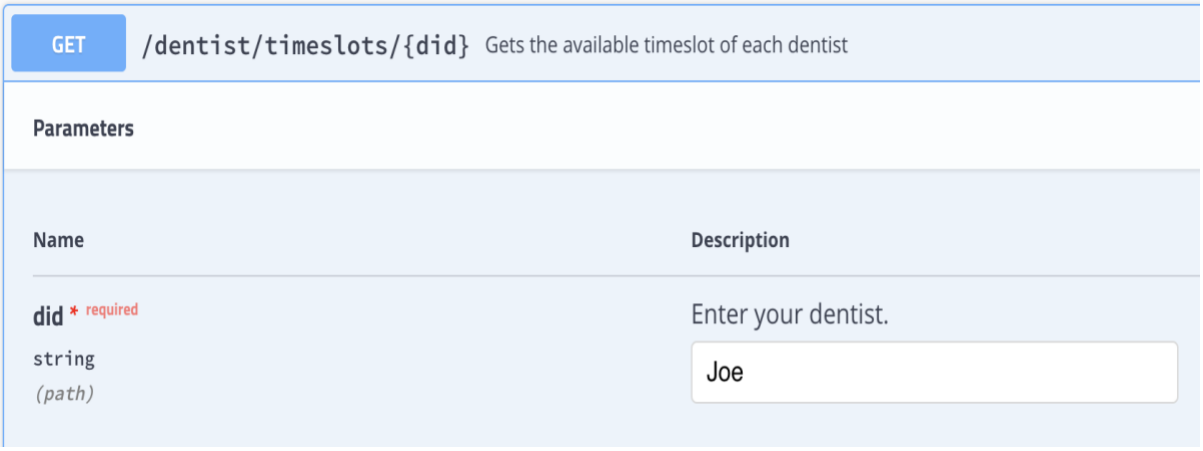


Output



3: **Get available timeslot for each dentist**

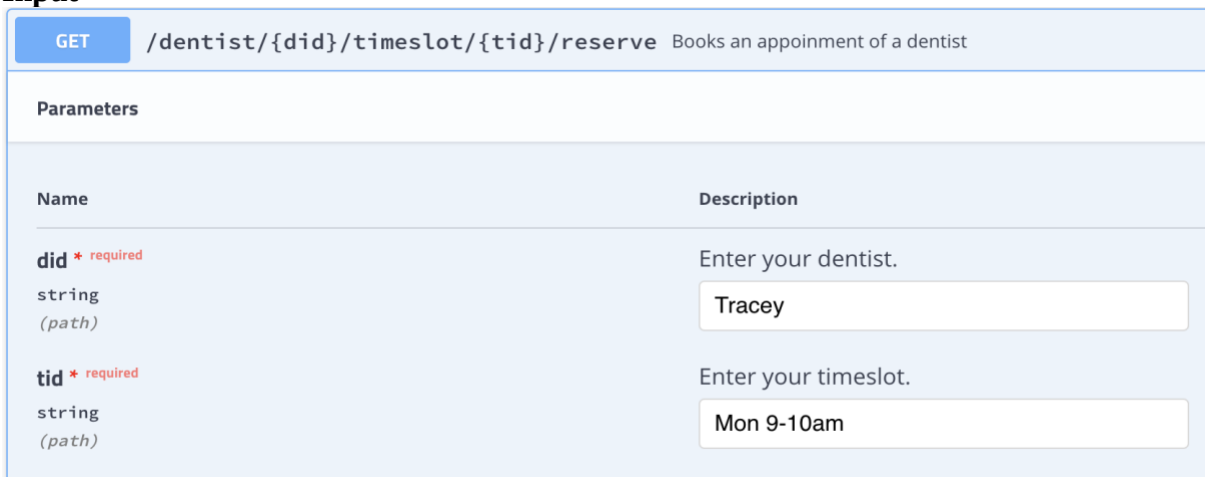
Input



Output

4: **Reserve timeslot**

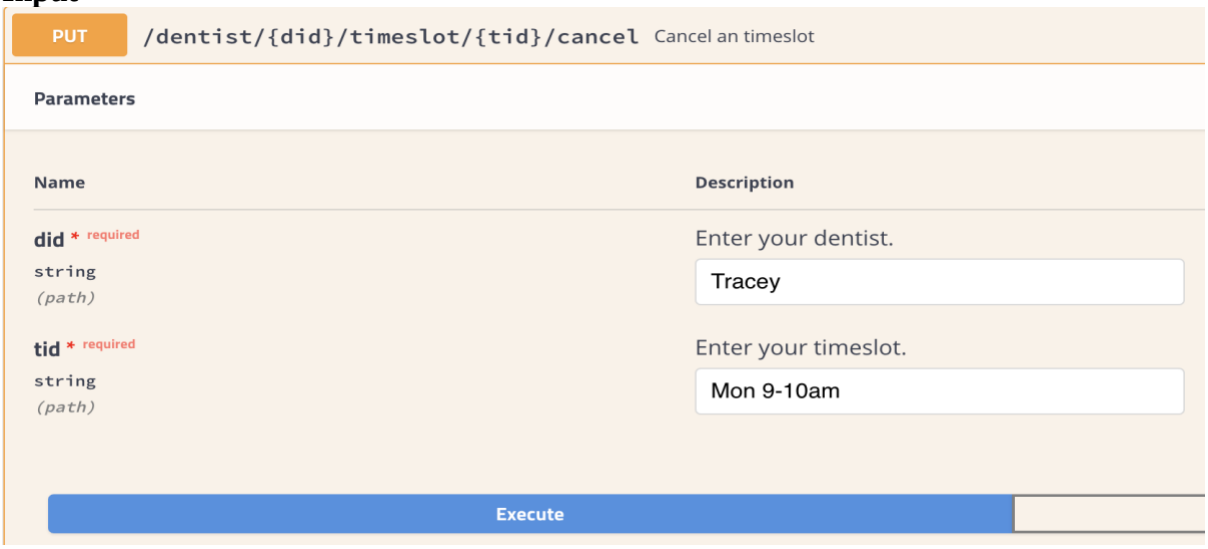
Input



Output

5: **Cancel appointment**

Input

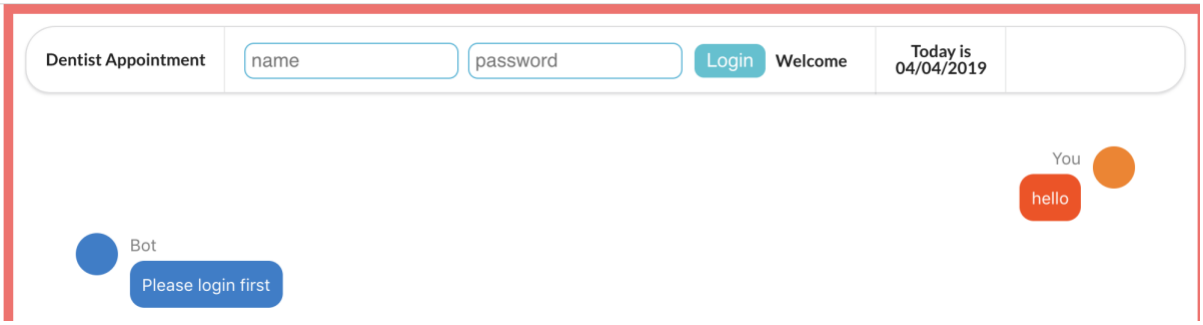


Output

How to use the bot

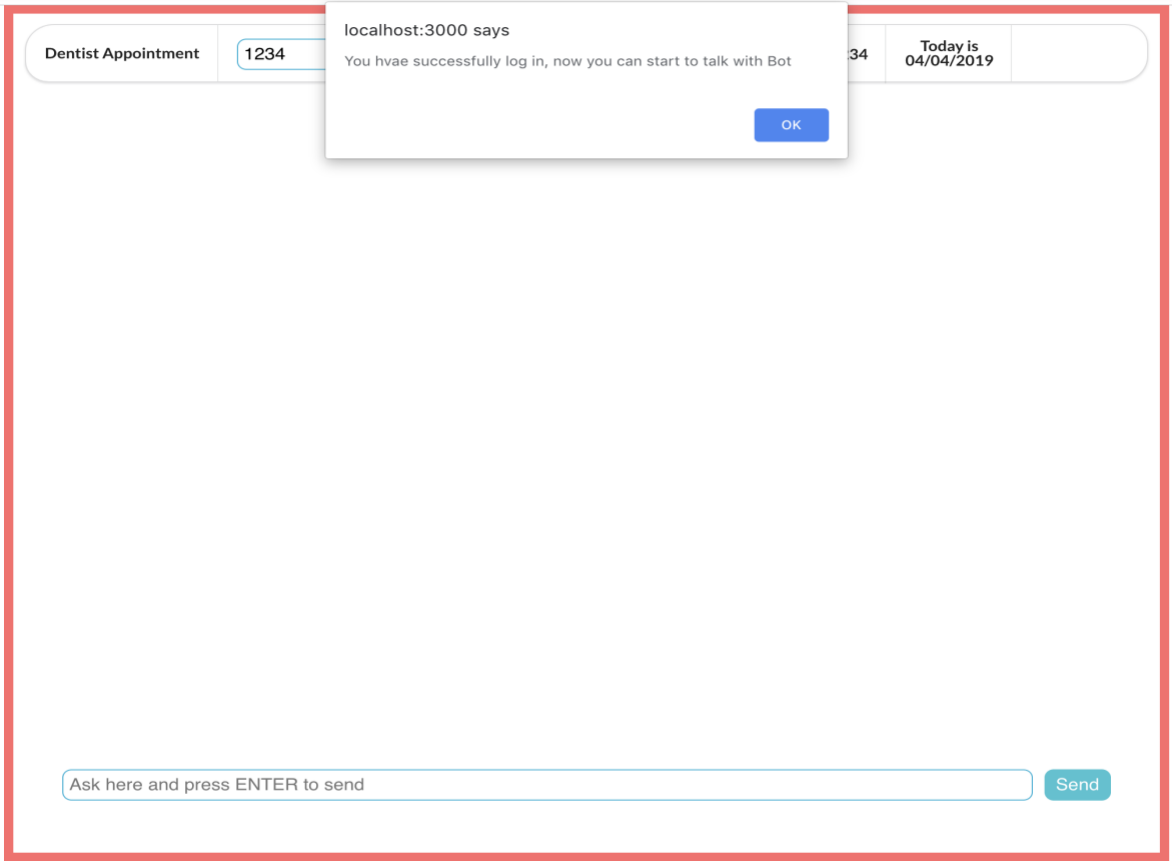
Note: I specifically set the token which will be valid in 30 minutes once login to the system. After 30 minutes, user needs to login again.

When you are in the frontend page, please do login firstly before doing any further action. Otherwise:



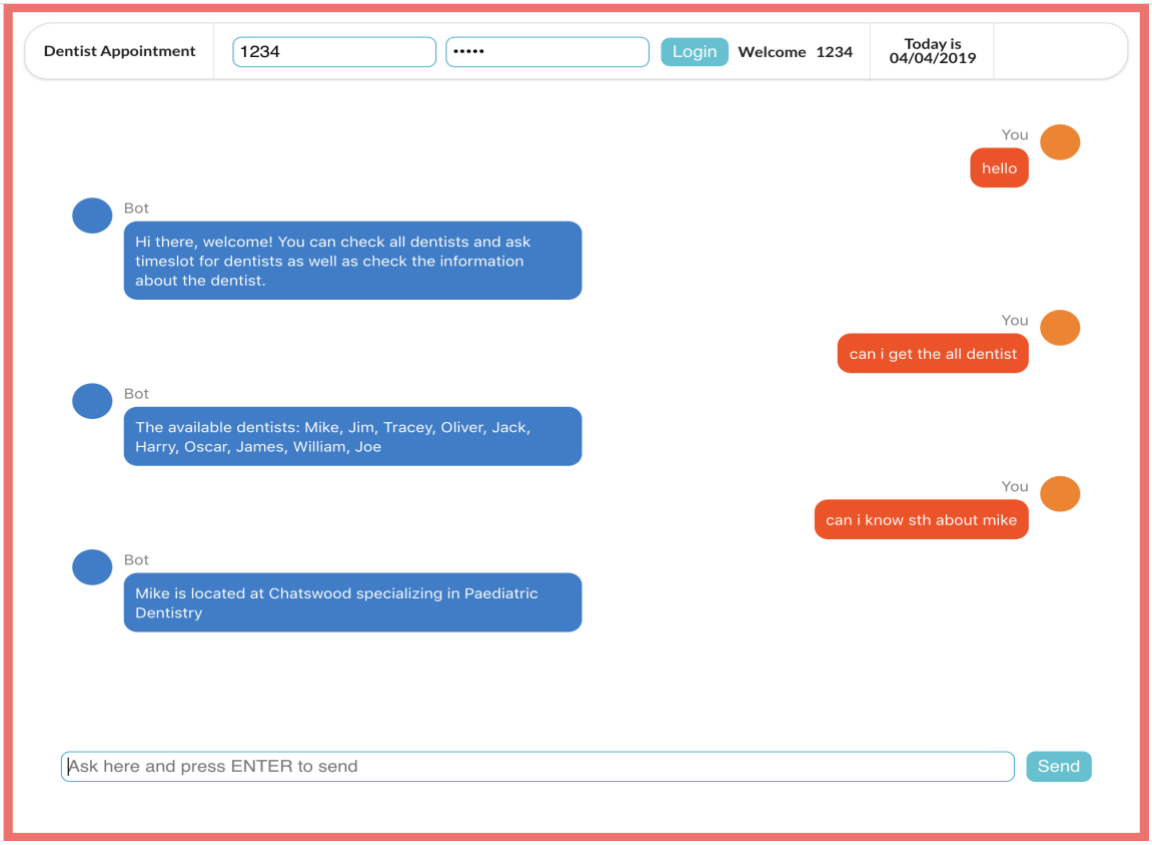
The user name is **1234**. The password is **admin**.

Login



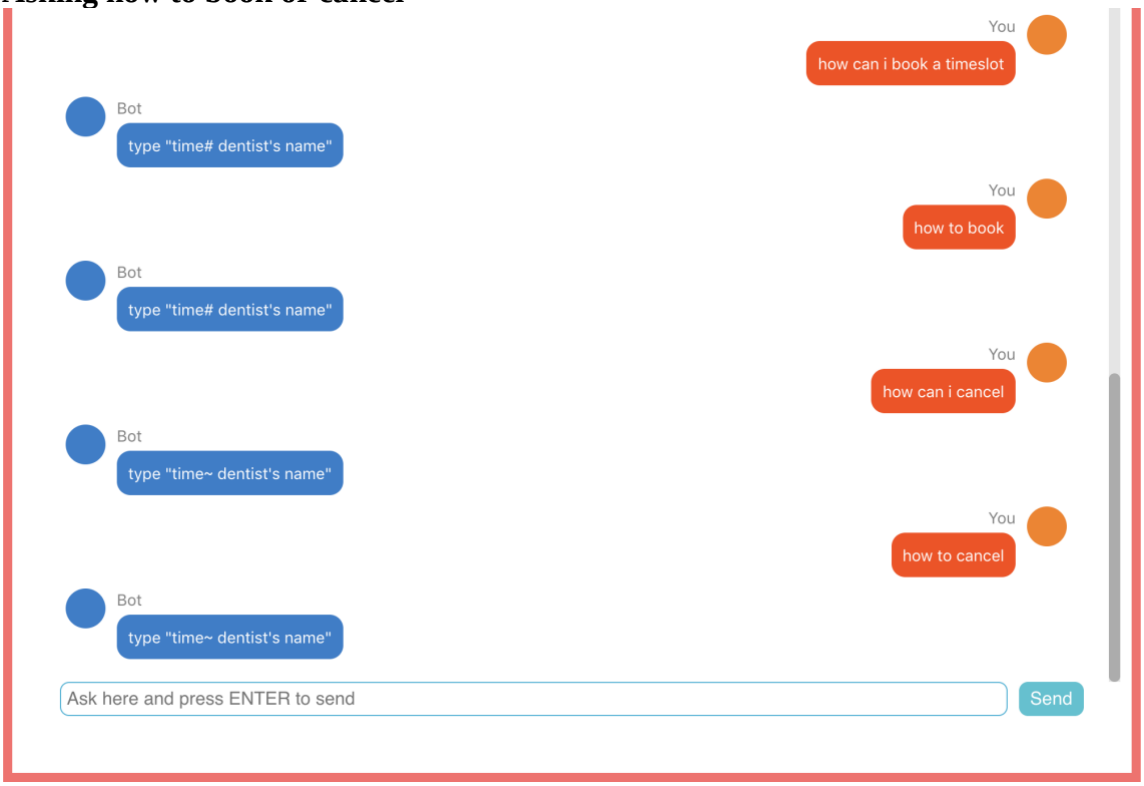
After login successfully, you can ask anything related about dentists and the timeslots.

Greeting and details about a dentist



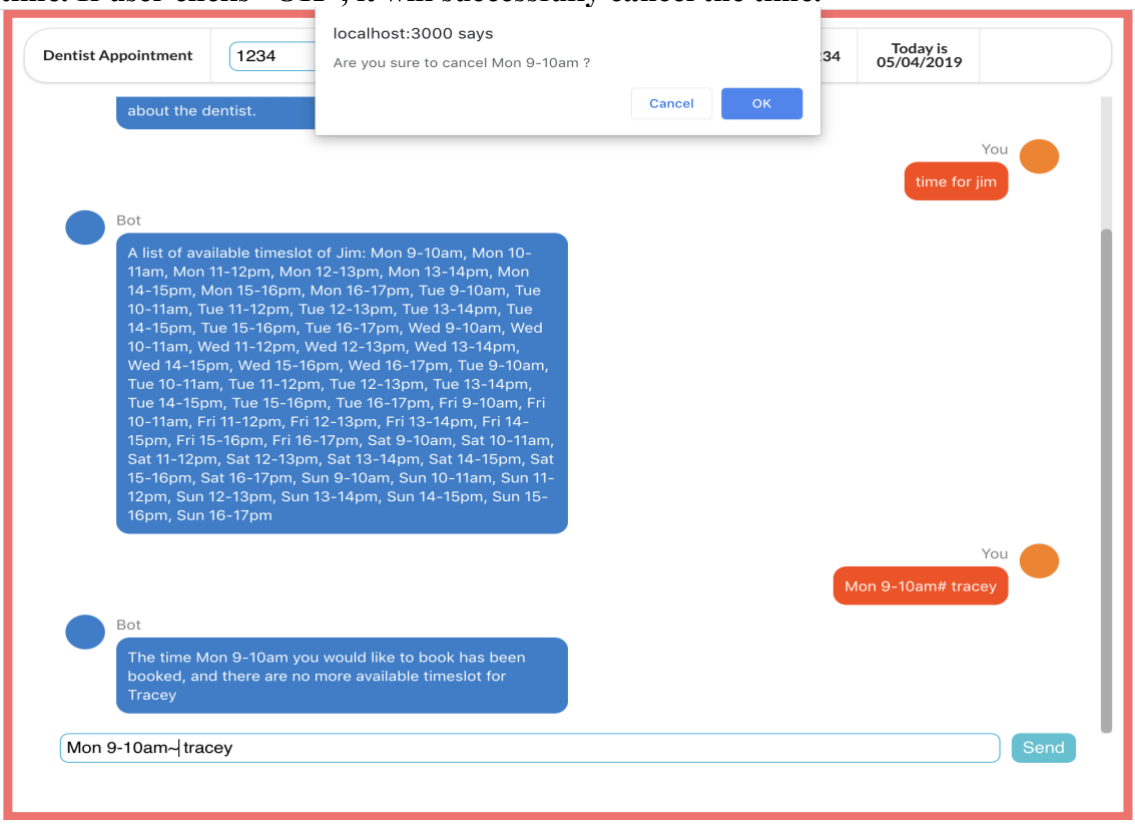
Asking time for specific dentist

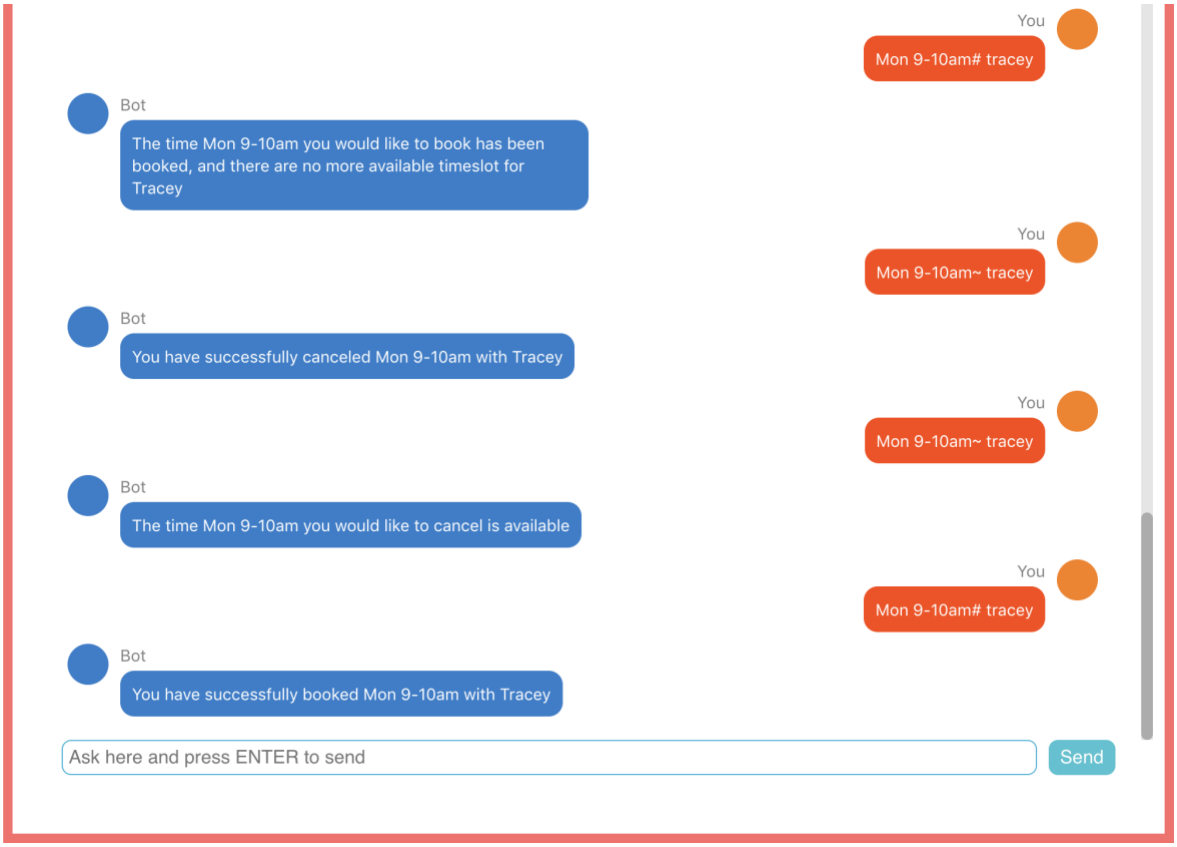
Asking how to book or cancel



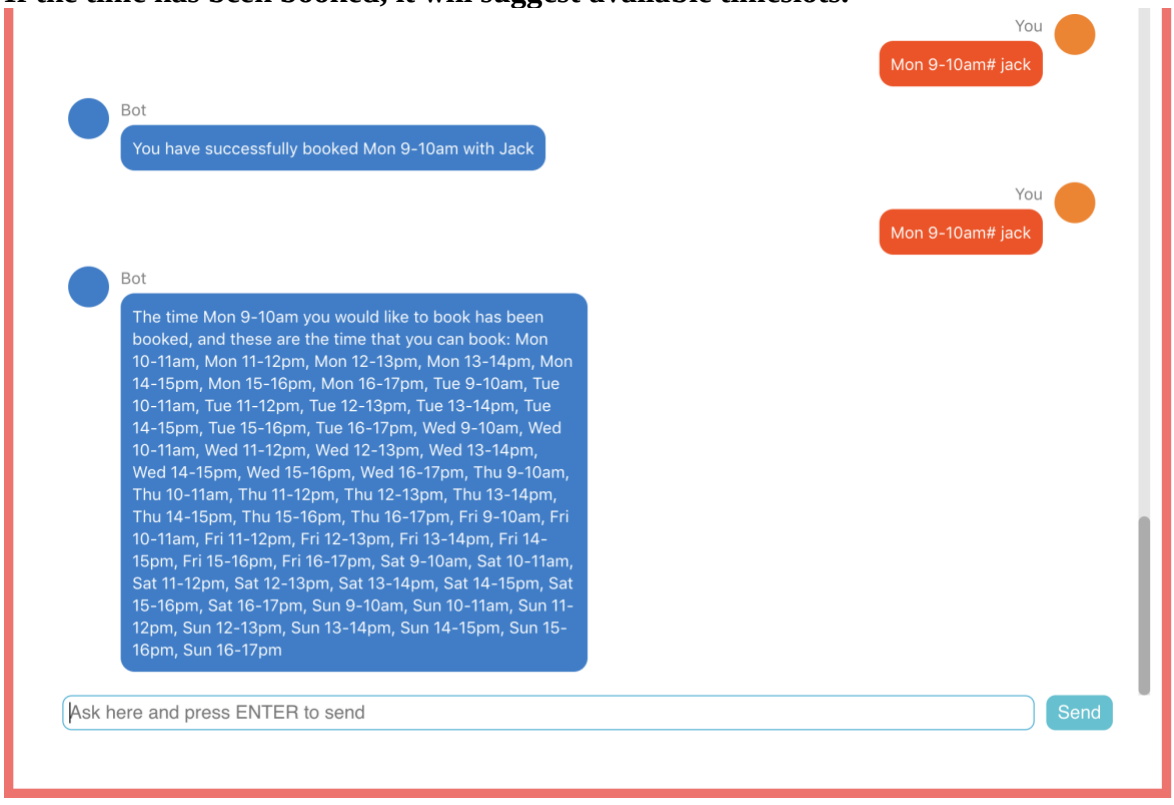
Booking and cancelling

User needs to confirm to cancel the time. If user clicks "Cancel", it will not cancel the time. If user clicks "OK", it will successfully cancel the time.

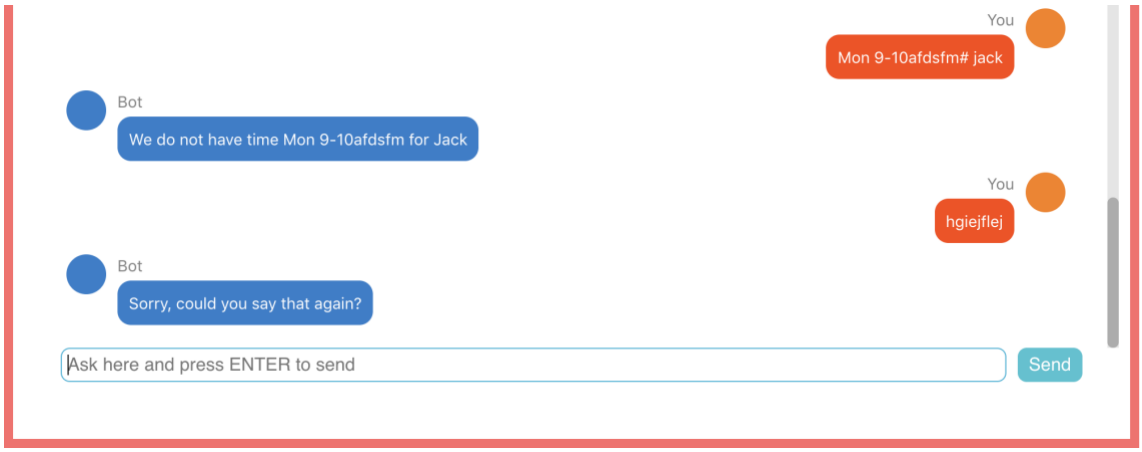




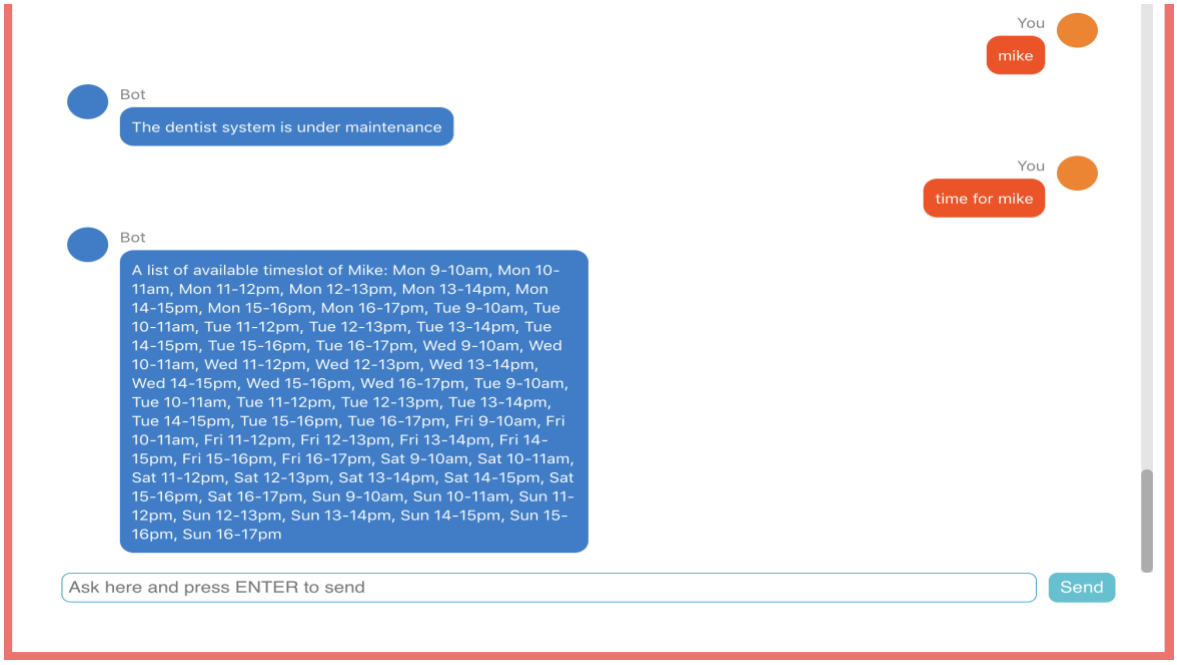
If the time has been booked, it will suggest available timeslots.

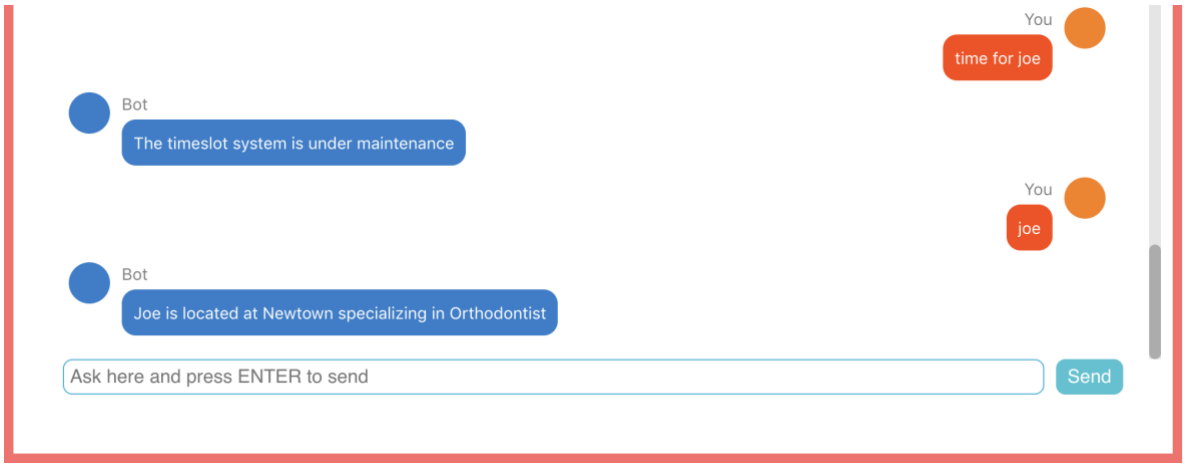


The bot also gives some reasonable replies for users if the bot does not understand what users ask.



Because the systems are microservices, which means one of the services (dentist or timeslot) does not run, it will not affect the whole website and the working system is still be served.





Database

Dentist and timeslot have their own data.json file in the respective service.

There are 10 dentists: Mike, Jim, Tracey, Oliver, Jack, Harry, Oscar, James, William and Joe.

Dentist has two attributes: location and specialization.

Each dentist has its own time table and it is the same.

For example:

Mon 9-10am, Mon 10-11am, Mon 11-12pm, Mon 12-13pm, Mon 13-14pm, Mon 14-15pm, Mon 15-16pm, Mon 16-17pm, Tue 9-10am, Tue 10-11am, Tue 11-12pm, Tue 12-13pm, Tue 13-14pm, Tue 14-15pm, Tue 15-16pm, Tue 16-17pm, Wed 9-10am, Wed 10-11am, Wed 11-12pm, Wed 12-13pm, Wed 13-14pm, Wed 14-15pm, Wed 15-16pm, Wed 16-17pm, Tue 9-10am, Tue 10-11am, Tue 11-12pm, Tue 12-13pm, Tue 13-14pm, Tue 14-15pm, Tue 15-16pm, Tue 16-17pm, Fri 9-10am, Fri 10-11am, Fri 11-12pm, Fri 12-13pm, Fri 13-14pm, Fri 14-15pm, Fri 15-16pm, Fri 16-17pm, Sat 9-10am, Sat 10-11am, Sat 11-12pm, Sat 12-13pm, Sat 13-14pm, Sat 14-15pm, Sat 15-16pm, Sat 16-17pm, Sun 9-10am, Sun 10-11am, Sun 11-12pm, Sun 12-13pm, Sun 13-14pm, Sun 14-15pm, Sun 15-16pm, Sun 16-17pm