

How is your project architecture related to the theory taught in the lecture?

in the chapter8, we learn the cloud computing fundamentals, and we know the service layer include SaaS, PaaS and IaaS. We deploy our code in the heroku platform which is the PaaS. Also, we apply the knowledge of autonomic computing, the line chatbot is the example, and the chatbot can according the clients content to response the answer.

Can you demonstrate, with some screen cap, how to increase capacity of your chat bot service?

According to the last milestone, except for the search function, we add some other services in our chatbot

```
if sentence_cut[0] == '2':  
    msg = handle_TextMessage_forDefinition(event)  
    line_bot_api.reply_message(  
        event.reply_token,  
        TextSendMessage(msg)  
    )
```

This definition function can request a html and capture the definition of a disease. In this case, the disease is COVID-19 and return some words.

```
msg = handle_TextMessage_forNew(event)  
line_bot_api.reply_message(  
    event.reply_token,  
    TextSendMessage(msg)  
)  
if sentence_cut[0] == '4':
```

This news function can find a news from website and return some news of COVID-19

```
elif sentence_cut[0] == '5':  
    msg = handle_TextMessage_forPicture(event)  
    line_bot_api.reply_message(  
        event.reply_token,  
        TextSendMessage(msg)  
    )
```

This picture function can reply a picture webpage, click it and open one picture about COVID-19

```
msg = handle_TextMessage_forPDF(event)
line_bot_api.reply_message(
    event.reply_token,
    TextSendMessage(msg)
)
```

This PDF function can reply a document of WHO report

Can you identify if your bot is one of the examples of PaaS, IaaS, SaaS? Explain your answer.

The PaaS can be simply explained that hardware and operating system details are abstracted away and can be scaled seamlessly and developers only need to focus on their business logic, not on the bottom layer. Simple to extreme deployment method. Heroku fully uses git for deployment. Developers generally use git to manage their own code. All they need is two lines of terminal commands to automatically add heroku remote, and then push and deploy at any time like normal git. The most important point is the service mechanism of heroku, which uses the so-called dyno as the operating unit to host the service. Easily configure server clusters.