Q1: How is your project architecture related to the theory taught in the lecture?
We learned three different Cloud Delivery Models PaaS, IaaS, SaaS in this course. The platform of this project is Heroku, which is a kind of Platform as a service (PaaS). In addition, the data are preserved by Redis and the final interface is provided by Line.

Q3: Can you identify if you bot is one of the examples of PaaS, IaaS, SaaS? Explain your answer.

From small businesses to global enterprises, cloud is a very hot topic, it is a very broad concept, covering many online areas. Cloud services are just a general term, which can be divided into three categories (IaaS, PaaS, SaaS). Infrastructure as a service (IaaS), Platform as a service (PaaS), Software as a service (SaaS). IaaS provides cloud consumers with a high level of control and responsibility over the configuration and utilization of the IT resources. PaaS is a category of cloud computing services that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app. SaaS is a software licensing and delivery model in which software is licensed on a subscription basis and is centrally hosted. Figure 2 shows the difference of IaaS, PaaS and SaaS.

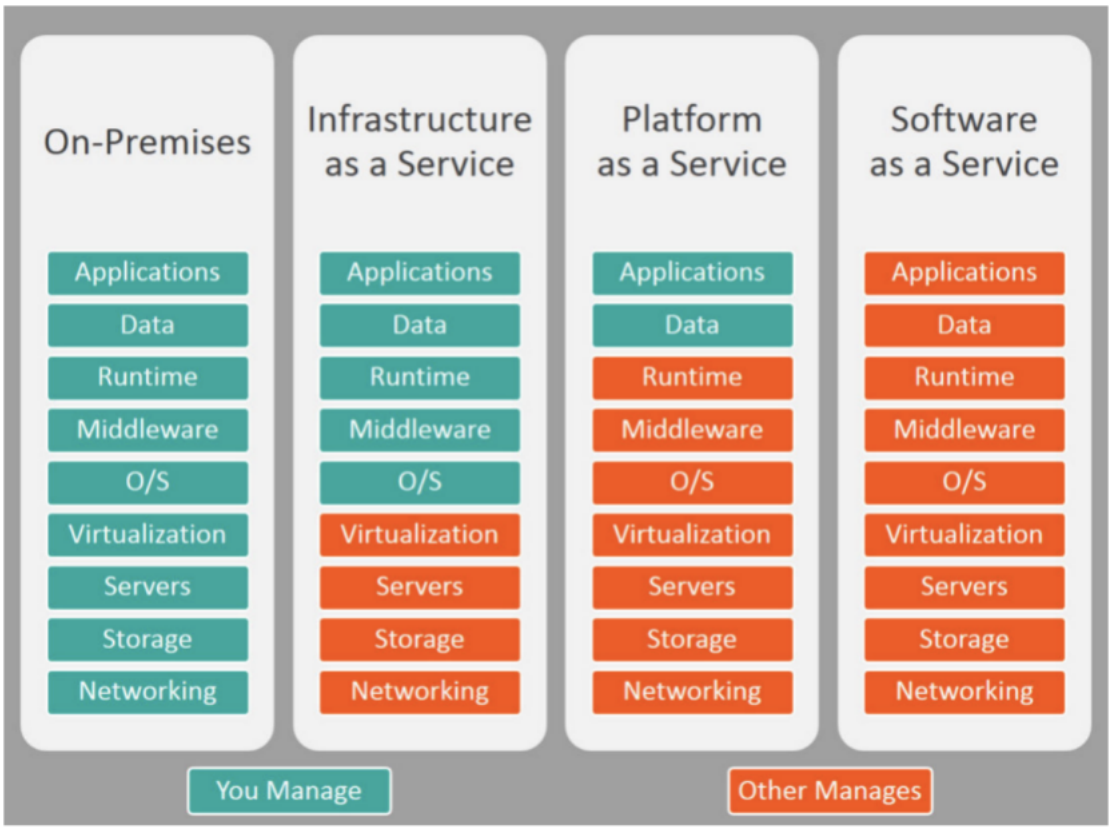

Figure 2 shows the difference of IaaS, PaaS and SaaS.

In this project, we apply Heroku into cloud platform function. Heroku is a cloud platform as a service **(PaaS)** supporting several programming languages. **Figure 3** and

Figure 4 describe the flow chart of Heroku. Seeing a flowchart from HeroKu's official website, it demonstrates the application building channel it advocates, including individual developers, entrepreneurial teams, and even businesses of all sizes can use it in its own way, and the rest is left to Users go to develop excellent applications. Between the developer and the user of the application, there are links such as application deployment, management, and scaling. Heroku is said to be a polyglot platform as it has features for a developer to build, run and scale applications in a similar manner across most languages. In addition, in order to obtain a map of the distribution of COVID-19 patients, we also apply the API service from Gaode Map. The service provided by Gaode's Map system is SaaS. We generate maps by calling applications on remote servers.

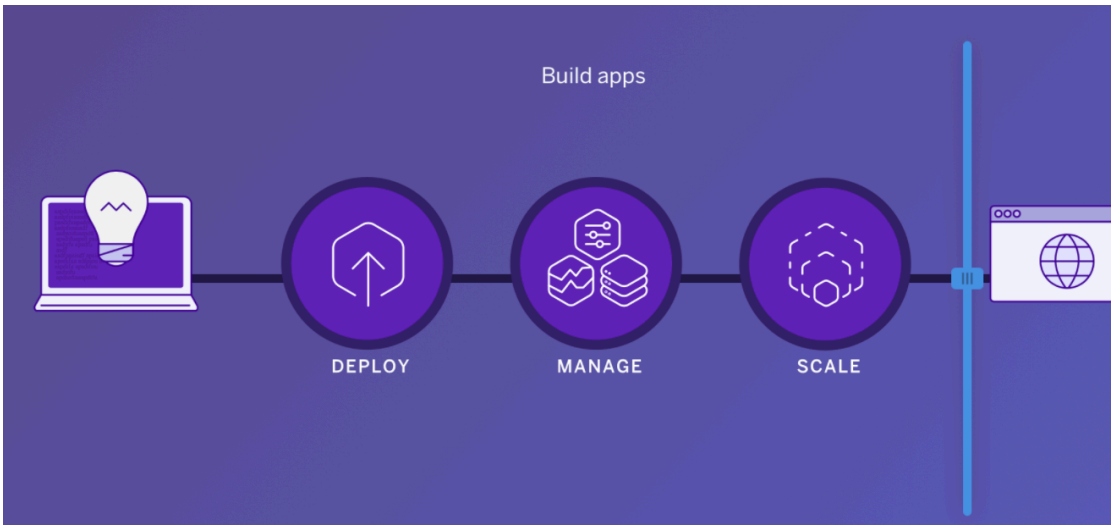

Figure 3. the flow chart of Heroku

Figure 4. the flow chart of Heroku