

## Group Project Milestone3

In project milestone 3, we used Redis to store infectious disease data which obtained from the website. As for the array information needs to be stored on the server, the data needs to be processed as follows:

```
def redisSet(key, list):
    redisObject = pickle.dumps(list)
    redis1.set(key, redisObject)

def redisGet(key):
    redisObject = redis1.get(key)
    if redisObject is None:
        return []

    result = pickle.loads(redisObject)
    return result
```

Except Redis, we use Baidu map API services. This is the tutorial link of Baidu map API <http://lbsyun.baidu.com/index.php?title=webapi/guide/webservice-placeapi>. Function planning of hospital: we get the hospital coordinate information through Baidu map API, and then display the hospital map to the user according to that coordinate. When we cannot get the coordinates from Bai map API, it will prompt the user that there is no record in our database. Here is the screenshot:



To use this service, it needs to register a Baidu map developer account first, and then create an application to generate AK code.



Next step to write AK code when program call the map API. The code of calling part as shown in the following:

```
# using map Api
def getlnglat(address):

    url = 'http://api.map.baidu.com/geocoder/v2/?address='
    output = 'json'
    add = quote(address)
    url2 = url + add + '&output=' + output + "&ak=" + 'oFLG0o9
    req = urlopen(url2)
    res = req.read().decode()
    temp = json.loads(res)
```

For milestone 3, it mainly improves the function of news about coronavirus. When the user asks for news about the coronavirus, first, we got the top news data from the Global Times website including news title, news link, image address, image link. Then, our robot will reply to the news title list. If the user clicks the picture or a title, it will jump to the news page. Here are screenshots.



Function planning of news: (1) When a user asks for news about the coronavirus, we get the latest news information from the website and display it in the dialog box. Meanwhile, query whether there are records in the database, if not, store them in the database. (2) When a user asks for some day's news, we search for the news of that day directly from the database and display it in a dialog box. If there is no record, prompt the user that no news of that day in the database.

In the news function, we applied the free MySQL server of db4free. It needs to register an account in the website firstly, and then set server parameter and MySQL database information. After that, we write a database operation class to complete this function including create and delete database tables, insert and select database records.