1. Set up MongoDB

Create a database called "ng-dashboard"

Create collections "3357", "5765", "sensor meta"

Import the json files into MongoDB
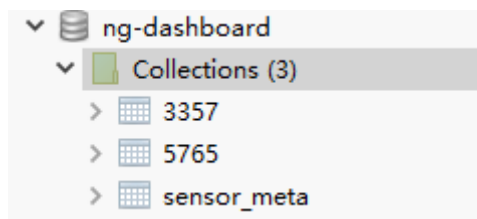

Figure 1. MongoDB Database Organization

Figure 2. Collection '3357'

✓ ⬚ (1) 3357.0.TL1	{ 9 fields }	Object
"" _id	3357.0.TL1	String
"" units	1	String
# log_interval	1	Int32
"" name	Air Temperature	String
"" units_name	1628	String
"" source	3357	String
"" first	2016-08-19	String
"" last	2016-08-28	String
📅 ts_utc	2018-05-20 01:23:52.146Z	Date
› ⬚ (2) 5765.0.WT1	{ 9 fields }	Object
› ⬚ (3) 5765.830501.TL1	{ 9 fields }	Object
› ⬚ (4) 5765.830300.TL8	{ 9 fields }	Object

Figure 3. Collection 'sensor_meta'

2. Set up SQL Server

Restore the .bak file

3. Configure the 'application.properties' file in the Spring program as your own database user setting

```
spring.data.mongodb.host=localhost
spring.data.mongodb.port=27017
spring.data.mongodb.username=thesis
spring.data.mongodb.password=demo
spring.data.mongodb.database=ng-dashboard

spring.datasource.url=jdbc:sqlserver://localhost;databaseName=4490Z
spring.datasource.username=sa
spring.datasource.password=summer2020
spring.datasource.driverClassName=com.microsoft.sqlserver.jdbc.SQLServerDriver
spring.jpa.show-sql=true
```

4. Run the Spring program

5. Run the Angular program

Go to the root directory of 'dashboard-new'

Run 'npm install'

Run 'ng serve'

Then open 'localhost:4200', the dashboard should now work properly.