## 1. Set up MongoDB

Create a database called “ng-dashboard”

Create collections as the shown in the picture. Each collection stores data from one sensor.

Import the json files into MongoDB using command below

mongoimport --db ng-dashboard --collection 3357.0.TL1 –file test_3357.json

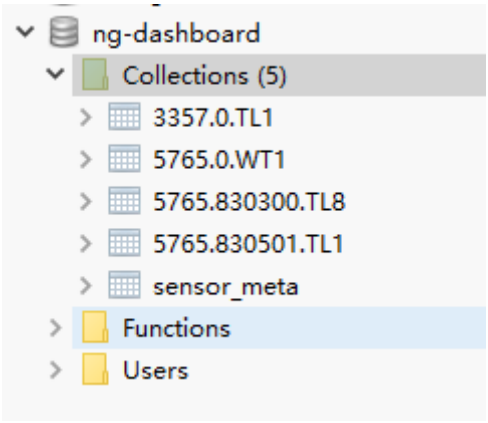


**Figure 1. MongoDB Database Organization**

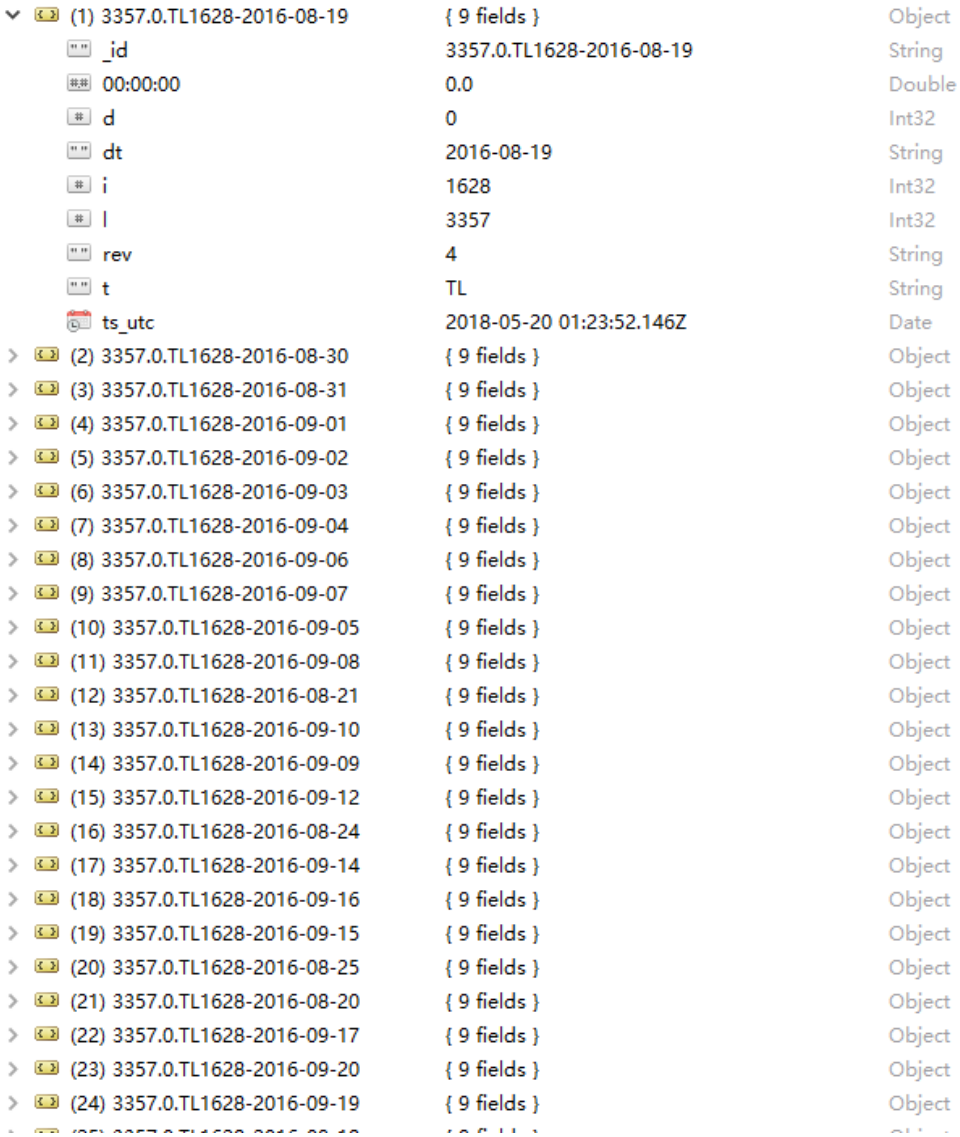


**Figure 2. Collection ‘3357.0.TL1’**

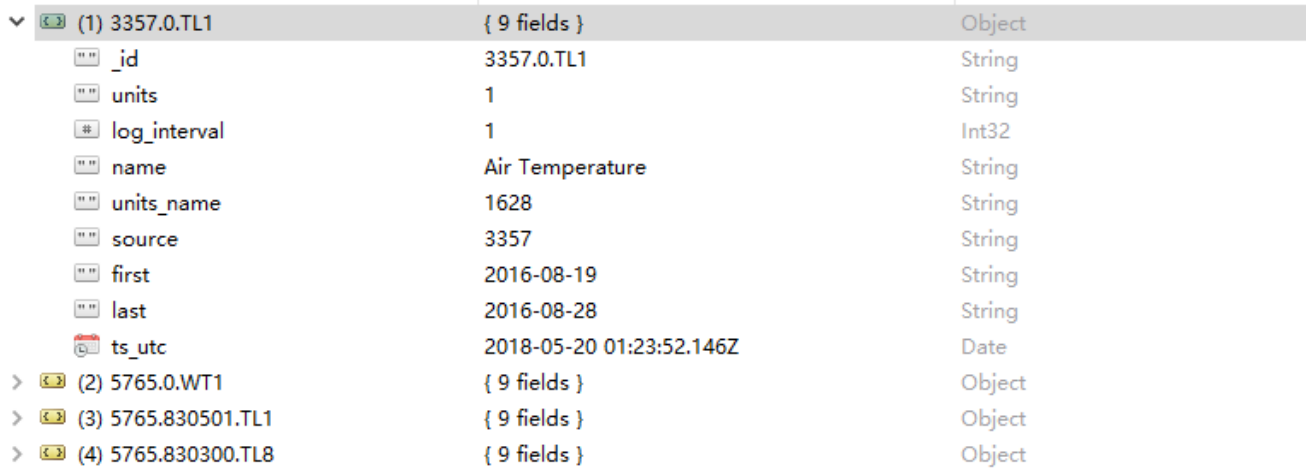


**Figure 3. Collection 'sensor_meta'**

### 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.