嵌入式系統作業

雲端資料庫實作

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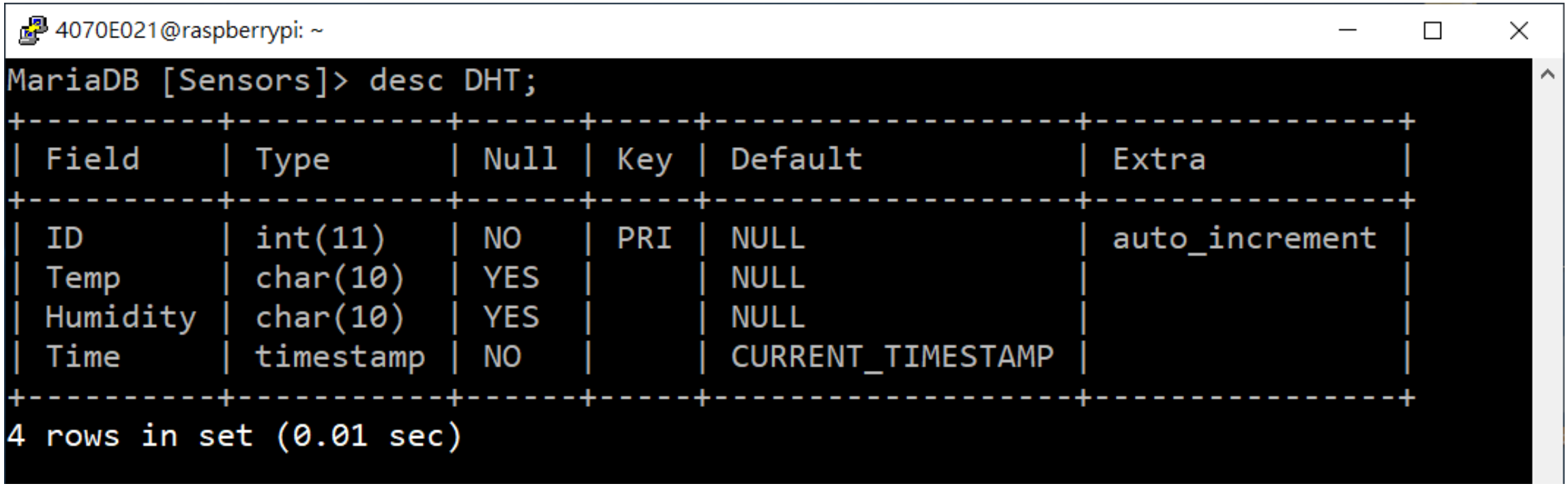
姓名：蘇宇祥

1.進入MySQL(已建置資料庫)

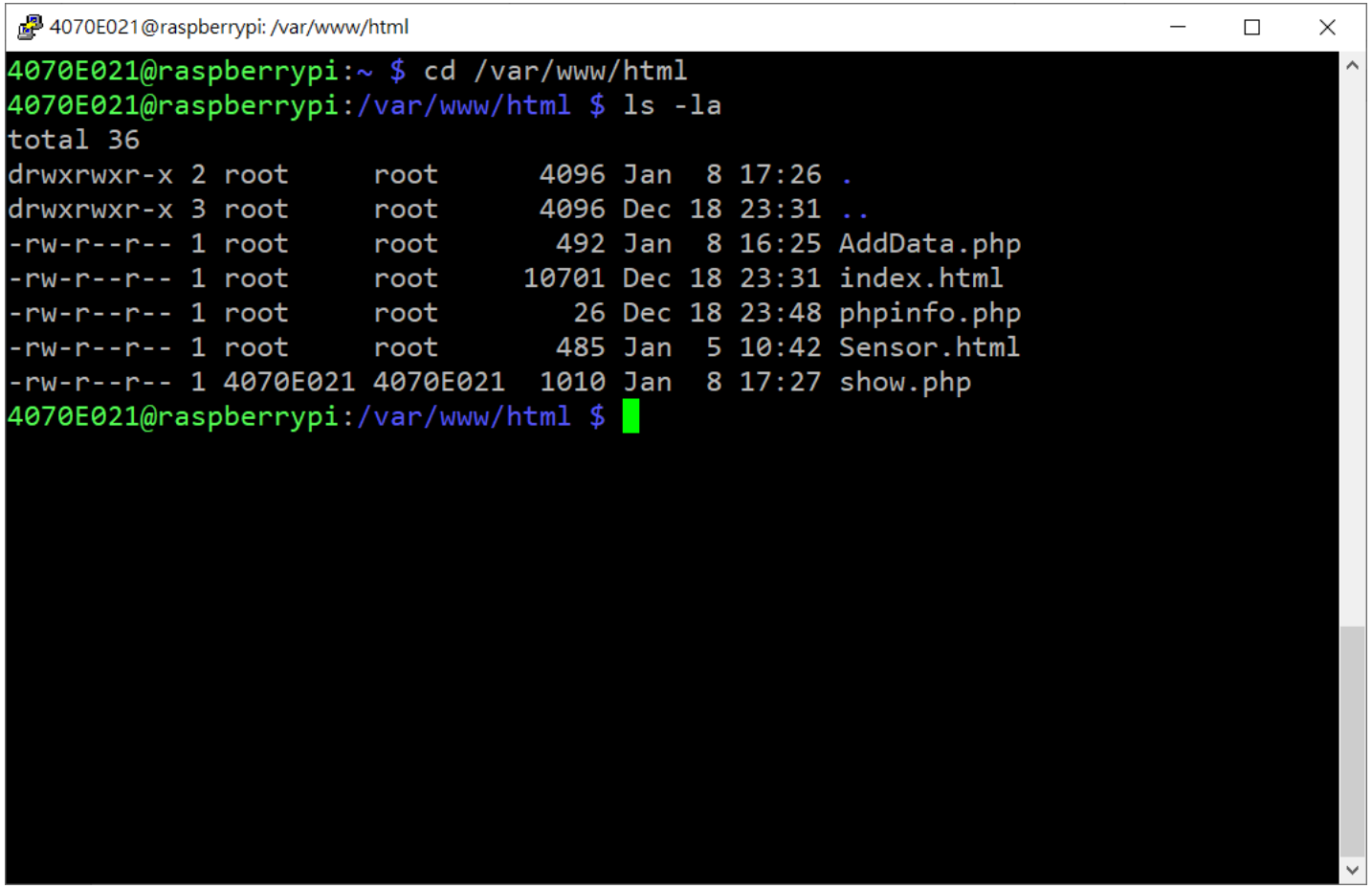


2.查看資料表欄位訊息

```
MariaDB [Sensors]> select * from DHT;
+-------+------+----------+---------------------+
| ID    | Temp | Humidity | Time                |
+-------+------+----------+---------------------+
| 11641 | 20   | 30       | 2021-01-08 16:54:36 |
+-------+------+----------+---------------------+
1 row in set (0.00 sec)

MariaDB [Sensors]>
```

3.列出根目錄底下html,php



4. Sensor.html

4070E021@raspberrypi: /var/www/html

GNU nano 3.2 Sensor.html

```
<html>
<head>
<meta charset="utf-8">
<title>AddData Test</title>
</head>
<body>
        <h1>嵌入式系統與實習</h1>
        <form action="AddData.php" method="get">
        Temp:<input type="text" name="Temp"><br>
        Humi:<input type="text" name="Humidity"><br><br>
        <input type="submit" value="Send">
        <input type="reset" value="Reset">
        </form>
        <input type="button" value="Search" onclick="location.href='http://192.$
</body>
</html>
```

[Read 18 lines]

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line

5. AddData.php

4070E021@raspberrypi: /var/www/html

GNU nano 3.2 AddData.php

```
<?php date_default_timezone_set("asia/taipei");
        $dns="mysql:host=127.0.0.1;dbname=Sensors";
        $Temp=$_GET['Temp'];
         $Humidity=$_GET['Humidity'];
         try{
                $db=new PDO($dns,'4070E021','steven8893');
                $db->exec("set names utf8");
                $sql="insert into DHT(Temp,Humidity) values('$Temp','$Humidity'$
                $result=$db->exec($sql);
                 if($result==1){
                        echo "新增成功";
                }else{
                        echo "新增失敗";
                }
        }catch(PDOException $e){
                printf("DATABASE_ERRMESG:%s",$e->getMessage());
        }
?>
```

[Read 18 lines]

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line

6. show.php

4070E021@raspberrypi: /var/www/html

GNU nano 3.2 show.php

```
<th>顏色</th>
<th>上傳時間</th>
</tr>
<?php
date_default_timezone_set("asia/taipei");
$dsn='mysql:host=127.0.0.1;dbname=Sensors';
try {
$db=new PDO($dsn,'4070E021','steven8893');
$db->exec("set names utf8");
$sql="select * from DHT order by Time Desc;";
foreach ($db->query($sql) as $row) {
$Temp = $row["Temp"];
if($row["Temp"]<25)
 {
        $row["color"] = "BLUE";
        }
elseif($row["Temp"]>=25 & $row["Temp"]<30)
{
$row["color"] = "GREEN";
```

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos
^X Exit ^R Read File ^\ Replace ^U Uncut Text ^T To Spell ^_ Go To Line

7.輸入測試資料

嵌入式系統與實習

Temp: 20

Humi: 30

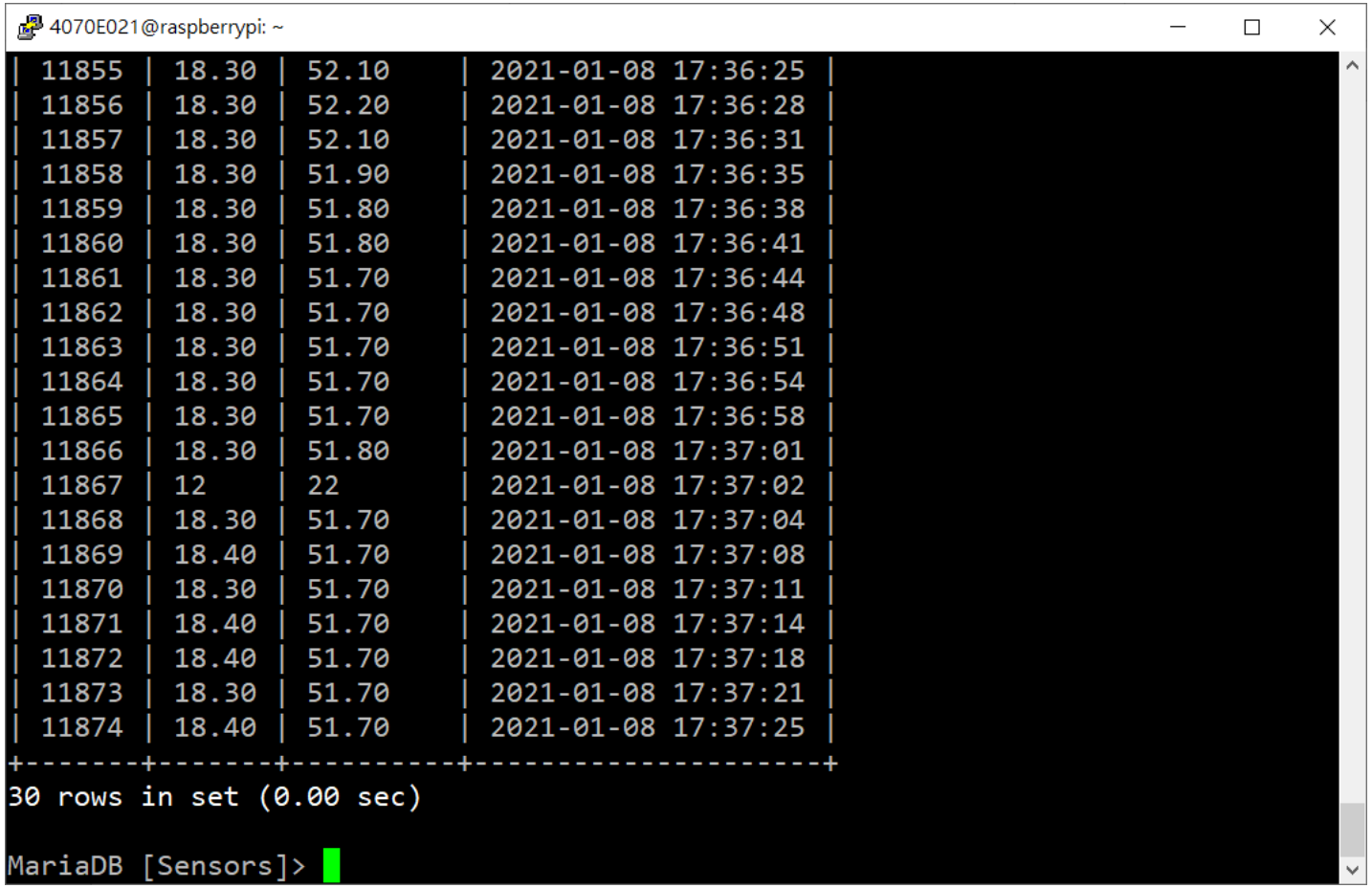
Send Reset

Search

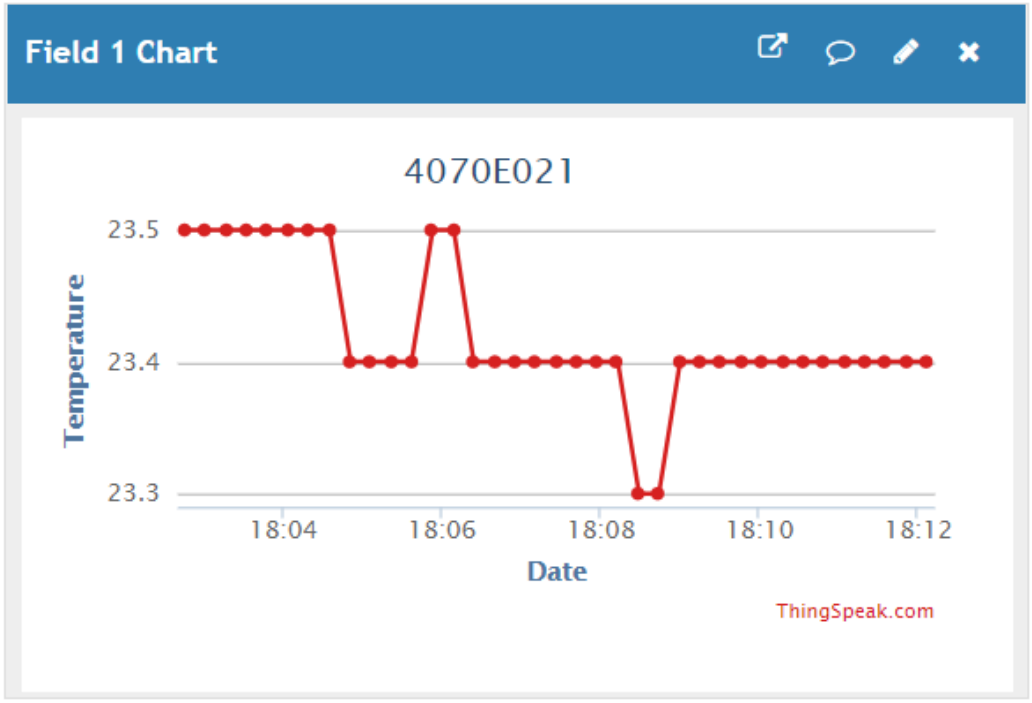
8.資料送進資料庫成功

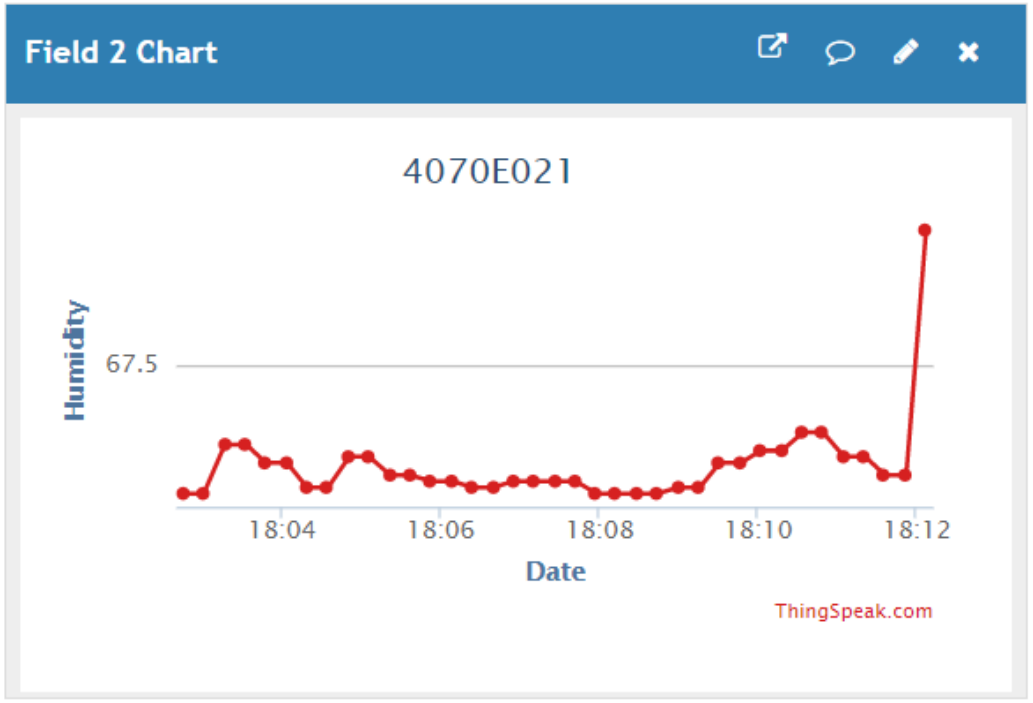
ID	溫度	濕度
11845	18.30	53.60
11846	18.30	53.40
11847	18.30	53.10
11848	18.30	52.60
11849	12	22

9.查詢資料庫內資料(web,SQL)

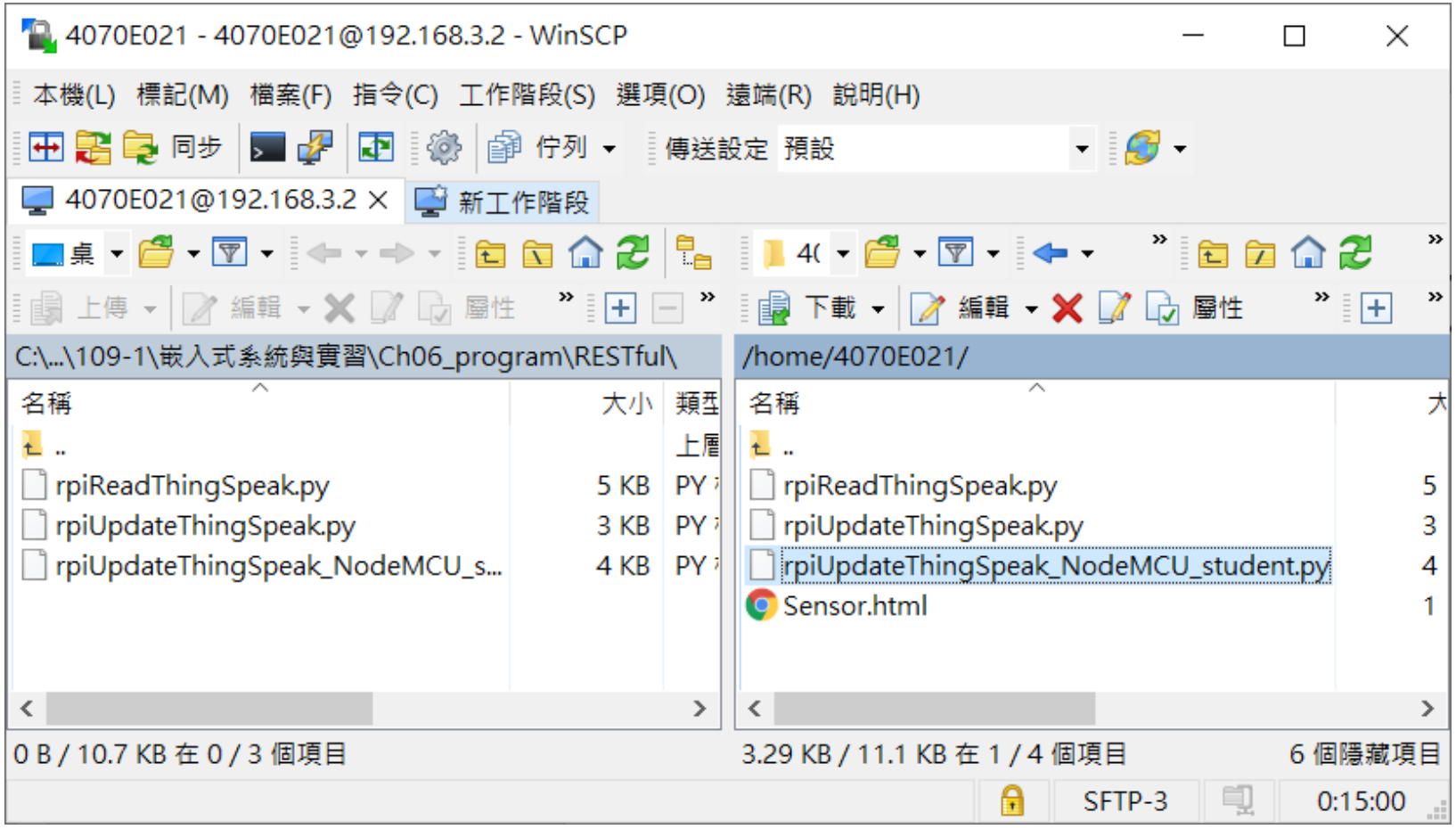


10.在ThingSpeak創建資料(名稱為自己學號)

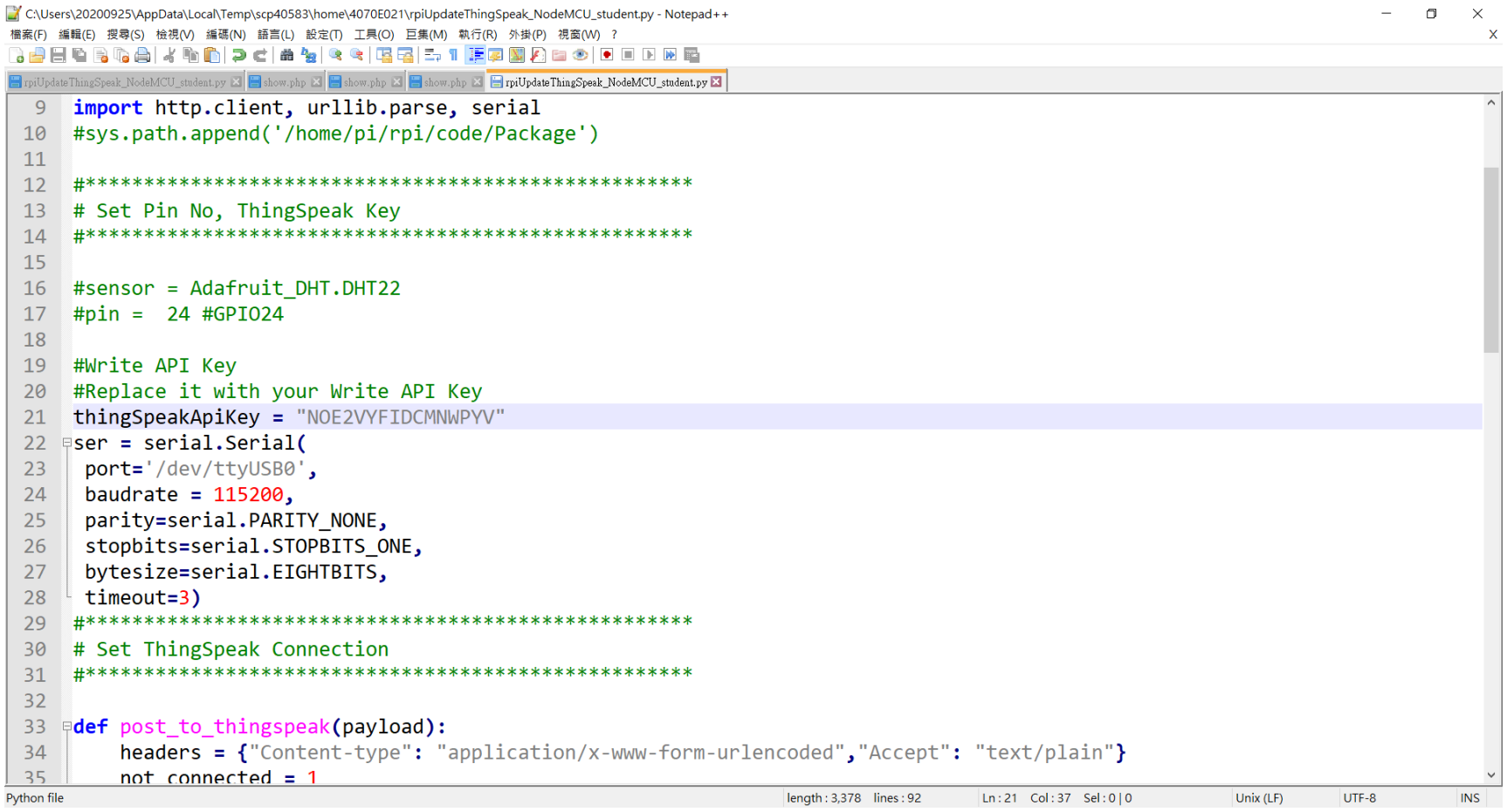




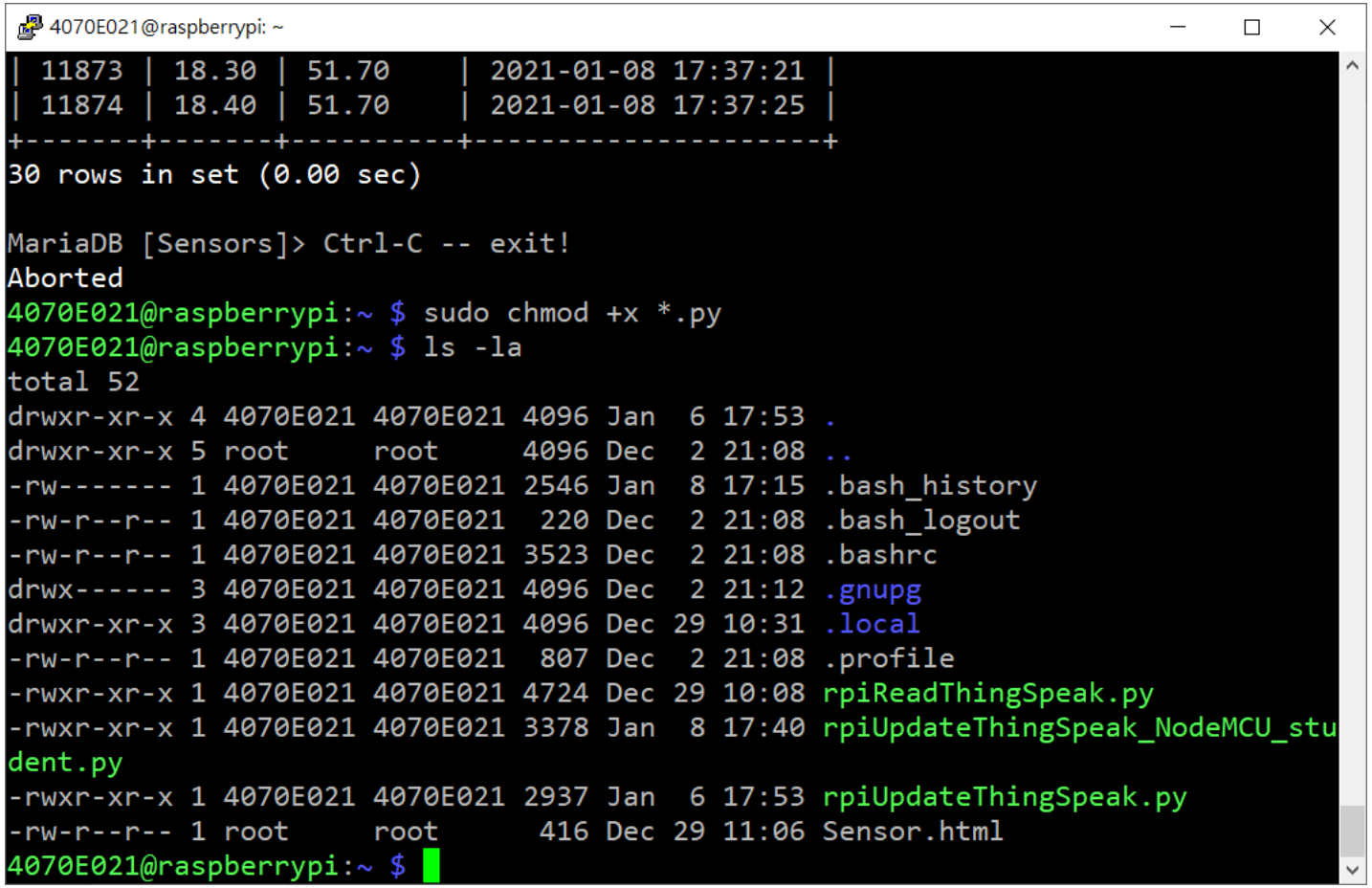
11.將寫入檔案上傳


4070E021 - 4070E021@192.168.3.2 - WinSCP
本機(L) 標記(M) 檔案(F) 指令(C) 工作階段(S) 選項(O) 遠端(R) 說明(H)
同步
佇列
傳送設定 預設
4070E021@192.168.3.2
新工作階段
桌
上傳
編輯
屬性
下載
C:\...\109-1\嵌入式系統與實習\Ch06_program\RESTful\
/home/4070E021/
名稱
大小
類型
..
rpiReadThingSpeak.py 5 KB
rpiUpdateThingSpeak.py 3 KB
rpiUpdateThingSpeak_NodeMCU_s... 4 KB
rpiReadThingSpeak.py
rpiUpdateThingSpeak.py
rpiUpdateThingSpeak_NodeMCU_student.py
Sensor.html
0 B / 10.7 KB 在 0 / 3 個項目
3.29 KB / 11.1 KB 在 1 / 4 個項目
6 個隱藏項目
SFTP-3
0:15:00

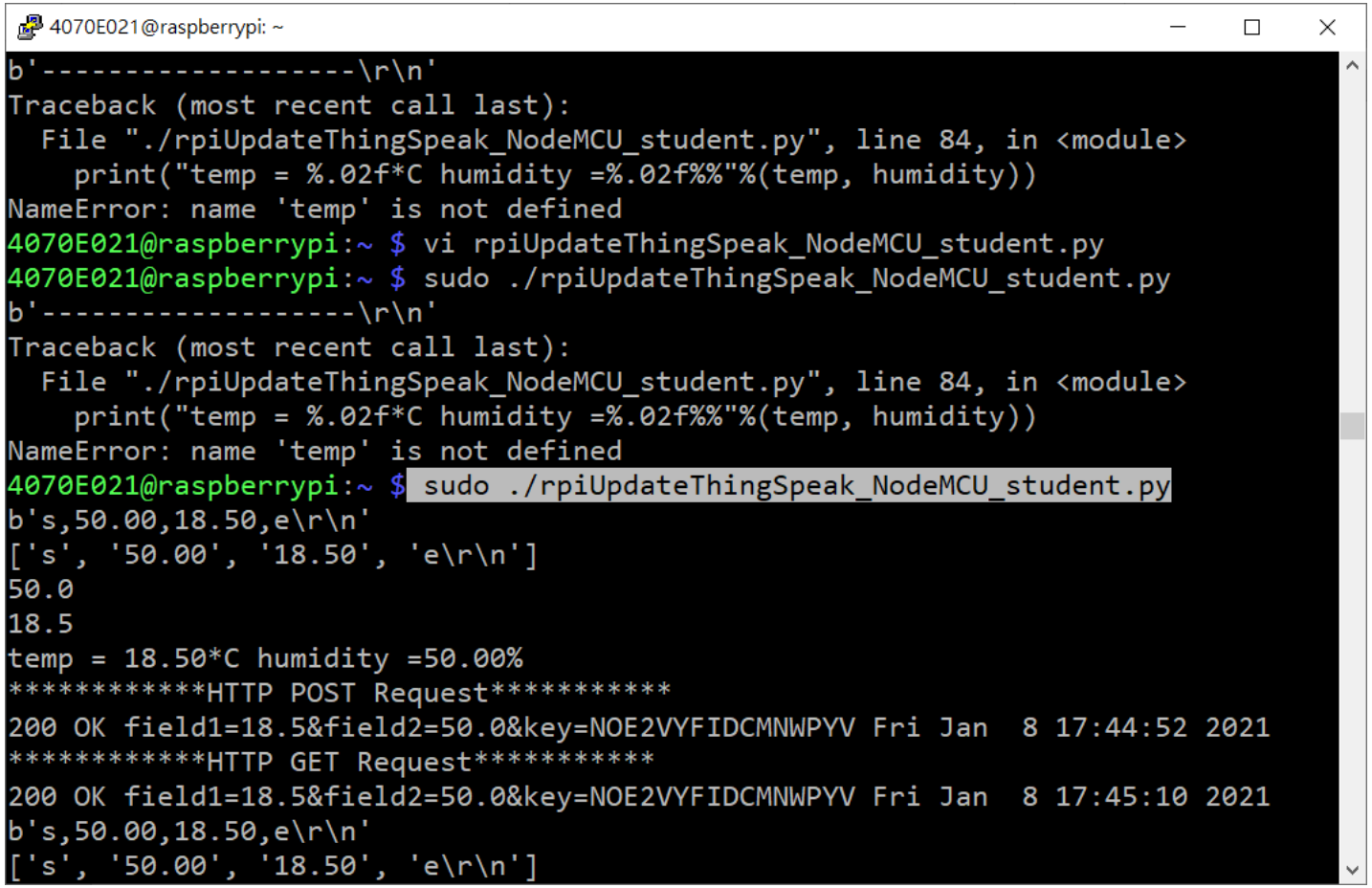
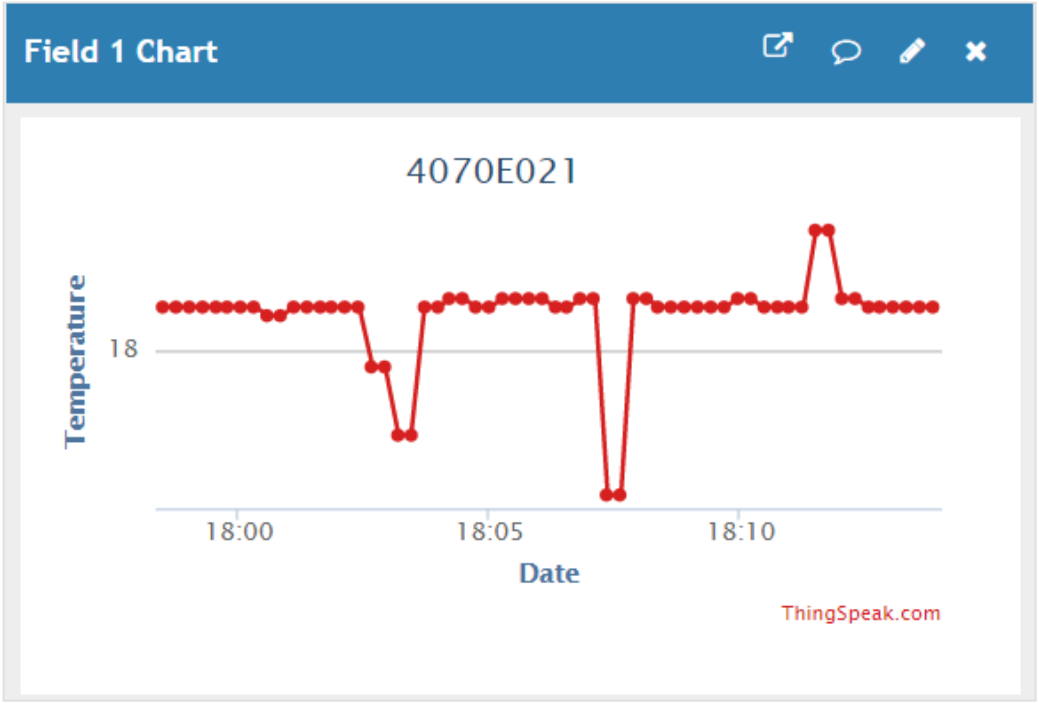
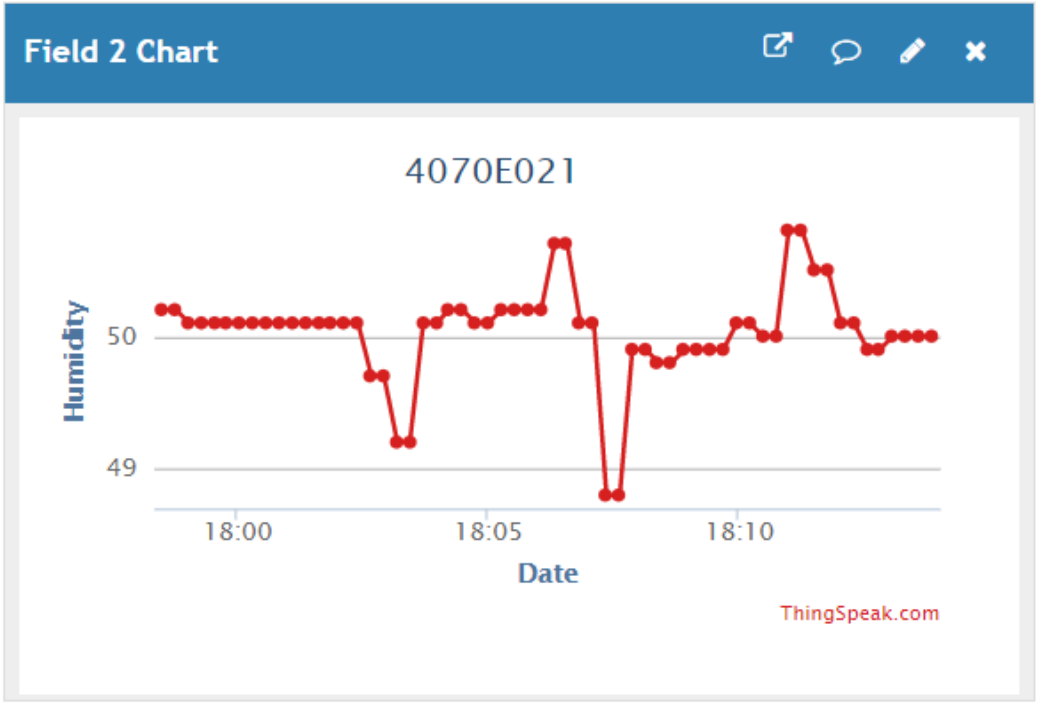
12.修改API key為自己的



13.修改權限(rpiUpdateThingSpeak_NodeMCU_student.py)



14.執行程式(rpiUpdateThingSpeak_NodeMCU_student.py)



15.ThingSpeak上數據(至少10筆)