

2021.10.5 (라즈베리파이)

```
pi@raspberrypi:~ $ mysql -u root -p
Enter password:
ERROR 1698 (28000): Access denied for user 'root'@'localhost'
pi@raspberrypi:~ $ sudo mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 7
Server version: 10.1.37-MariaDB-0+deb9u1 Raspbian 9.0

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> grant all privileges on *.* to 'root'@'localhost' identified by '12341234';
Query OK, 0 rows affected (0.01 sec)

MariaDB [(none)]> quit
```

✓ 라즈베리파이로 전달받은 값을 데이터베이스로 확인

pi 라는 폴더안에 py 파일 담아놓고 터미널에서 sudo python zzz.py 하면 py 실행됨

use mysql;

python3 -m pip install PyMySQL

sudo mysql -u root -p

use espdata;

show tables;

```
create table esp_data(
  -> sid varchar(30),
  -> volt varchar(30),
  -> voltr varchar(30),
  -> curr varchar(30),
  -> gradx varchar(30),
  -> grady varchar(30),
  -> humi varchar(30),
  -> tempr varchar(30),
  -> tempub varchar(30),
```

-> time0 varchar(30))
-> character set utf8;

show tables;

explain esp_data;

select*from esp_data;

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
| sid  | volt | voltr | curr | gradx | grady | humi | tempr | tempub | time0      |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
| id001 | 358 | 354 | 368 | 354 | 351 | 349 | 352 | 356 | 2021-10-05 17:25:40 |
|
| id001 | 371 | 364 | 373 | 353 | 344 | 337 | 335 | 334 | 2021-10-05 17:25:46 |
|
| id001 | 372 | 371 | 384 | 369 | 361 | 353 | 348 | 342 | 2021-10-05 17:25:52 |
|
| id001 | 359 | 356 | 371 | 360 | 358 | 355 | 358 | 361 | 2021-10-05 17:25:58 |
|
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
4 rows in set (0.001 sec)
```

-> 각 데이터 값이 DB 에 출력되는 것을 확인

PYTHON

```
import serial
import time
from time import localtime, strftime
serialPort= serial.Serial('/dev/ttyACM0', 115200, timeout =None)
```

```

serialPort.flushInput()
#serialPort.flushOutput()
res = " "
time.sleep(1)
try:
    if serialPort.readable():
        try:
            res = serialPort.readline()
            #print(res)
            res_data = res.decode()[:len(res)-1]
            print(res_data)
            sensor_data = res_data.strip().split(' ')
            print(sensor_data)
            print(len(sensor_data))
            if (sensor_data[0]):
                sid = sensor_data[0].strip()
            else:
                sid = "0"
            if (sensor_data[1]):
                volt = sensor_data[1].strip()
            else:
                volt = "0"
            if (sensor_data[2]):
                voltr=sensor_data[2].strip()
            else:
                voltr="0"
            if (sensor_data[3]):
                curr = sensor_data[3].strip()
            else:
                curr="0"
            if (sensor_data[4]):
                gradx = sensor_data[4].strip()
            else:
                gradx = "0"
            if (sensor_data[5]):
                grady = sensor_data[5].strip()
            else:
                grady="0"
            if (sensor_data[6]):
                humi = sensor_data[6].strip()
            else:
                humi="0"

            if (sensor_data[7]):

```

```
    tempr = sensor_data[7].strip()
else:
    tempr="0"

if (sensor_data[8]):
    tempub = sensor_data[8].strip()
else:
    tempub="0"
if (sensor_data[0]) and (len(sensor_data)==9):
    print(sensor_data)
    print(strftime("%Y-%m-%d %H:%M:%S", localtime()))
except:
    print("ERROR: No insert Data")
except:
    print("Error: No received Sensor Data")
```