

# Python & MySQL

---

## Create Connection

Start by creating a connection to the database.

Use the username and password from your MySQL database:

```
import mysql.connector

mydb = mysql.connector.connect(
    host="localhost",
    user="yourusername",
    password="yourpassword",
    database="mydatabase"
)
```

## Create demo database

Use this SQL script for creating demo database:

```
create database sensedata;

create table hatdata (
    id int not null AUTO_INCREMENT,
    createdate datetime,
    temp double,
    primary key (id))
```

## Insert Into Table

To insert data into MySQL table, use the *INSERT INTO* statement.

Install the MySQL Python connector with:

```
pip install mysql-connector-python
```

Create a Python file with this content:

```
# Imports
import mysql.connector
import ssl
import datetime
from sense_hat import SenseHat
from time import sleep

# Database connector
mydb = mysql.connector.connect(
    host="localhost",
    user="pi",
    password="xxxxx",
    database="sensedata")

# Sense
sense = SenseHat()

# Database
mycursor = mydb.cursor()

while True:
    # Date
    createdate = datetime.datetime.now()

    # Temp data
    temp = sense.get_temperature()

    # Get data
    sql = "INSERT INTO hatdata (createdate, temp) VALUES (%s, %s)"
    val = (createdate, temp)

    # Insert data
    mycursor.execute(sql, val)
    mydb.commit()

    # Pause before next insert
    sleep(0.5)
```

## Workbench

Open Workbench and check if the data is inserted.

```
select * from hatdata;
```