

檔案:client.py

修改前

```
os.system('pause') # 按任意鍵繼續
hostname = '127.0.0.1'
port = 5288
addr = (hostname, port)
clientsock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
clientsock.connect(addr)
watter = random.randint(0, 150)
weight = random.randint(0, 100)
data = ","+str(watter)+","+str(weight)
msg = data
clientsock.send(msg.encode())
server_response = str(clientsock.recv(1024), encoding='utf-8')
print('Server response:', server_response)
clientsock.close()
```

修改後

```
class Sever:
    def __init__(self,hostname="127.0.0.1",port=5288,encoding="utf-8"):
        self.hostname = hostname
        self.port = port
        self.encoding = encoding
    def sendData(self):
        watter = random.randint(0,150)
        weight = random.randint(0,100)
        data = ","+str(watter)+","+str(weight)
        return data

while True:
    os.system('pause')#按任意鍵繼續
    sever = Sever("127.0.0.1",5288,"utf-8")
    addr = (sever.hostname,sever.port)
    clientsock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
    clientsock.connect(addr)
    msg = sever.sendData()
    clientsock.send(msg.encode())
    server_response = str(clientsock.recv(1024), encoding=sever.encoding)
    print('Server response:', server_response)
    clientsock.close()
```

檔案:sever.py

修改前

```
hostname = '127.0.0.1'
port = 5288
addr = (hostname,port)
srv = socket.socket()
srv.bind(addr)
srv.listen(5)
print("waitting connect")

def connectDB_insertData(userName,userInput):
    try:
        localtime = time.localtime()
        result = time.strftime("%Y-%m-%d %I:%M:%S %p", localtime)

        connection = mysql.connector.connect(
            host='localhost',
            database='pet',
            user='root',
            password='root'
        )
        if connection.is_connected():
            print("資料庫連接成功")
            sql = '''INSERT INTO pet (watter, weight,date) VALUES (%s,%s, %s)'''

            val = (userName, userInput,result)
            cursor = connection.cursor()
            cursor.execute(sql,val)
            connection.commit()

    except Error as e:
        print("資料庫連接失敗:", e)

while True:
    connect_socket,client_addr = srv.accept()
    print(client_addr)
    recevent = connect_socket.recv(1024)
    print(str(recevent,encoding='utf-8'))
    connect_socket.send(bytes("message:"+str(recevent) ,encoding='utf-8'))
    rpiData = str(recevent).split(",")
    print(rpiData)
    connectDB_insertData(rpiData[1],rpiData[2])
    connect_socket.close()
    break
```

修改後

```
class Client:
    def __init__(self, hostname="127.0.0.1", port=5288, encoding="utf-8", listen=5):
        self.hostname = hostname
        self.port = port
        self.encoding = encoding
        self.listen = listen

class Sql:
    def __init__(self, host='localhost', database='pet', user='root', password='root'):
        self.host = host
        self.database = database
        self.user = user
        self.password = password

    def connectDB_insertData(self, watterData="None", weightData="None"):
        try:
            localtime = time.localtime()
            result = time.strftime("%Y-%m-%d %I:%M:%S %p", localtime)

            connection = mysql.connector.connect(
                host=self.host,
                database=self.database,
                user=self.user,
                password=self.password
            )
            if connection.is_connected():
                print("資料庫連接成功")
                sql = '''INSERT INTO pet (watter, weight,date) VALUES (%s,%s, %s)'''
                val = (watterData, weightData, result)
                cursor = connection.cursor()
                cursor.execute(sql, val)
                connection.commit()
                print("資料上傳成功")
        except Error as e:
            print("資料庫連接失敗:", e)
```

```
while True:
    client = Client("127.0.0.1", 5288, "utf-8", 5)
    addr = (client.hostname, client.port)
    srv = socket.socket()
    srv.bind(addr)
    srv.listen(client.listen)
    print("waitting connect")
    connect_socket, client_addr = srv.accept()
    print(client_addr)
    recevent = connect_socket.recv(1024)
    connect_socket.send(
        bytes("message:"+str(recevent), encoding=client.encoding))
    rpiData = str(recevent).split(",")
    print(rpiData)
    sql = Sql('localhost', 'pet', 'root', 'root')
    sql.connectDB_insertData(rpiData[1], rpiData[2])
    connect_socket.close()
    break
```