

```
import sqlite3
```

```
conn = sqlite3.connect('mydatabase1.sqlite')
```

```
cursor = conn.cursor()
```

```
print("opened database successfully")
```

opened database successfully

Performing create operation

```
cursor.execute("""Create Table College
```

```
(ID Int Primary Key NOT Null,
```

```
Name Text NOT Null,
```

```
Age Int NOT Null,
```

```
Address CHAR(50),
```

```
Marks Int); """)
```

```
import sqlite3
```

```
conn = sqlite3.connect('mydatabase1.sqlite')
```

```
cursor = conn.cursor()
```

```
cursor.execute("Insert into College (ID, name, age, address,  
marks) \
```

```
values (1, 'Dinesh', 21, 'Delhi', 400)");
```

```
cursor.execute("Insert into College (ID, name, age, address,  
marks) \
```

```
values (2, 'Sathish', 21, 'Bangalore', 450)");
```

```
cursor.execute("Insert into College (ID, name, age, address,  
marks) \
```

Problem Solving Using Python and R LabLab12. Database Programming using sqlite3

Question1. Perform CRUD operations on Student Table as outlined in the reference (<https://medium.com/analytics-vidhya/programming-with-databases-in-python-using-sqlite-4cecbef51ab9>).

```
Cursor.execute values (3, 'Kumar', 21, 'Hyderabad', 400)");
```

```
Cursor.execute ("Insert into college (ID, Name, Age, Address,  
marks)
```

```
values (4, 'Saro', 21, 'Kolkata', 650)");
```

```
Conn.commit()
```

```
Conn.close()
```

performing read operation

```
import sqlite3
```

```
conn = sqlite3.connect ('mydatabase1.sqlite')
```

```
Cursor = conn.cursor()
```

```
for row in Cursor.execute ("select ID, name, marks from  
college"):
```

```
print ("ID =", row[0])
```

```
print ("Name =", row[1])
```

```
print ("Marks =", row[2], "\n")
```

performing update operation
=
=
=

```
import sqlite3
```

```
conn = sqlite3.connect('mydatabase1.sqlite')
```

```
cursor = conn.cursor()
```

```
conn.execute("update College set marks = 400 where ID=4")
```

```
conn.commit()
```

```
for row in cursor.execute("select ID, name, marks from  
                           college"):
```

```
    print("ID =", row[0])
```

```
    print("Name =", row[1])
```

```
    print("marks =", row[2], "\n")
```

```
conn.commit()
```

```
conn.close()
```

performing delete operation
=
=
=

```
import sqlite3
```

```
conn = sqlite3.connect('mydatabase1.sqlite')
```

```
cursor = conn.cursor()
```

```
conn.execute("Delete from College where ID = 3")
```

```
conn.commit()
```

```
for row in cursor.execute("select ID, name, address, marks  
                           from College"):
```

```
    print("ID =", row[0])
```

```
    print("Name =", row[1])
```

```
    print("Address =", row[2])
```

```
    print("marks =", row[3], "\n")
```

```
conn.commit()
```

```
conn.close()
```


Question2. Open the table MyRestaurants.db that you have created for NoSQL course

```
import Sqlite3
conn = Sqlite3.connect('my-database.sqlite')
cursor = conn.cursor()
cursor.execute("INSERT INTO myrestaurant (Name, Foodtype,
Distance, Lastvisit, Ilike) \
values('apple-leaf', 'nonveg', '15', '01-Jan-2020', '1')");
conn.commit()
conn.close()
```

Question3. Write a SQL query that returns all restaurants in your table MyRestaurants.db.

```
import Sqlite3
conn = Sqlite3.connect('my-database.sqlite')
cursor = conn.cursor()
for row in cursor.execute("select name from myrestaurant"):
    print("Name =", row[0])
conn.commit()
conn.close()
```

Question4. Write a SQL query that returns the names of restaurants in descending order that makes Chinese foods.

```
import Sqlite3
conn = Sqlite3.connect('my-database.sqlite')
cursor = conn.cursor()
for row in cursor.execute("select name, Foodtype from
myrestaurant where Foodtype = 'chinese' group by name,
Foodtype order by name, Foodtype desc"):
    print("Name =", row[0])
    print("Foodtype =", row[1])
conn.commit()
conn.close()
```