

**Name : Viviyen Richards w**

**Roll no : 205229133**

## LAB -12

### 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>

In [2]:

```
import sqlite3
conn = sqlite3.connect('my_database.sqlite')
cursor = conn.cursor()
print("Opened database successfully")
```

Opened database successfully

### Creating a Table

In [4]:

```
cursor.execute('''CREATE TABLE SCHOOL
                (ID INT PRIMARY KEY     NOT NULL,
                 NAME           TEXT      NOT NULL,
                 AGE            INT       NOT NULL,
                 ADDRESS        CHAR(50),
                 MARKS          INT);''')
cursor.close()
```

In [7]:

```
import sqlite3
conn = sqlite3.connect('my_database.sqlite')
cursor = conn.cursor()

cursor.execute("INSERT INTO SCHOOL (ID,NAME,AGE,ADDRESS,MARKS) \
VALUES (1, 'Rohan', 14, 'Delhi', 200)");
cursor.execute("INSERT INTO SCHOOL (ID,NAME,AGE,ADDRESS,MARKS) \
VALUES (2, 'Allen', 14, 'Bangalore', 150 )");
cursor.execute("INSERT INTO SCHOOL (ID,NAME,AGE,ADDRESS,MARKS) \
VALUES (3, 'Martha', 15, 'Hyderabad', 200 )");
cursor.execute("INSERT INTO SCHOOL (ID,NAME,AGE,ADDRESS,MARKS) \
VALUES (4, 'Palak', 15, 'Kolkata', 650)");conn.commit()
conn.close()
```

### SELECTING records from the TABLE

In [9]:

```
import sqlite3
conn = sqlite3.connect('my_database.sqlite')
cursor = conn.cursor()
for row in cursor.execute("SELECT id, name, marks from SCHOOL"):
    print("ID = ", row[0])
    print("NAME = ", row[1])
```

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

```
conn.commit()  
conn.close()
```

```
ID = 1  
NAME = Rohan  
MARKS = 200
```

```
ID = 2  
NAME = Allen  
MARKS = 150
```

```
ID = 3  
NAME = Martha  
MARKS = 200
```

```
ID = 4  
NAME = Palak  
MARKS = 650
```

## UPDATING Records in the TABLE

In [10]:

```
import sqlite3  
conn = sqlite3.connect('my_database.sqlite')  
cursor = conn.cursor()  
conn.execute("UPDATE SCHOOL set MARKS = 250 where ID = 3")  
conn.commit()  
  
for row in cursor.execute("SELECT id, name, address, marks from SCHOOL"):  
    print("ID = ", row[0])  
    print("NAME = ", row[1])  
    print("MARKS = ", row[2], "\n")  
  
conn.commit()  
conn.close()
```

```
ID = 1  
NAME = Rohan  
MARKS = Delhi
```

```
ID = 2  
NAME = Allen  
MARKS = Bangalore
```

```
ID = 3  
NAME = Martha  
MARKS = Hyderabad
```

```
ID = 4  
NAME = Palak  
MARKS = Kolkata
```

## DELETE Operation

In [14]:

```
import sqlite3  
conn = sqlite3.connect('my_database.sqlite')  
cursor = conn.cursor()  
conn.execute("DELETE from SCHOOL where ID = 2")  
conn.commit()  
  
for row in cursor.execute("SELECT id, name, address, marks from SCHOOL"):
```

```

print("ID = ", row[0])
print("NAME = ", row[1])
print("ADDRESS = ", row[2])
print("MARKS = ", row[3], "\n")

```

```

conn.commit()
conn.close()

```

```

ID = 1
NAME = Rohan
ADDRESS = Delhi
MARKS = 200

```

```

ID = 3
NAME = Martha
ADDRESS = Hyderabad
MARKS = 250

```

```

ID = 4
NAME = Palak
ADDRESS = Kolkata
MARKS = 650

```

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

In [52]:

```

import cx_Oracle
conn = cx_Oracle.connect( "scott/scott")
sql = "SELECT * FROM MY_RES "
cursor = conn.cursor()
cursor.execute(sql)
for row in cursor.execute("SELECT * from MY_RES"):
    print("NAME = ", row[0])
    print("FOODTYPE=", row[1])
    print("DISTANCE=" , row[2])
    print("LASTVISIT=", row[3])
    print("ILIKE=", row[4])
    print("\n")

conn.commit()
conn.close()

```

```

NAME = dosacorner
FOODTYPE= nonveg
DISTANCE= 10
LASTVISIT= 05-feb-2020
ILIKE= 1

```

```

NAME = apple_leaf
FOODTYPE= nonveg
DISTANCE= 15
LASTVISIT= 01-jan-2020
ILIKE= 1

```

```

NAME = sowmyas
FOODTYPE= veg
DISTANCE= 18
LASTVISIT= 20-mar-2020
ILIKE= 1

```

```

NAME = thinnappa
FOODTYPE= nonveg
DISTANCE= 25
LASTVISIT= 20-nov-2019
-- ---- ~

```

```
ILIKE= 0
```

```
NAME = sribhavan  
FOODTYPE= veg  
DISTANCE= 18  
LASTVISIT= 20-dec-2019  
ILIKE= 0
```

```
NAME = chinaworld  
FOODTYPE= chinese  
DISTANCE= 14  
LASTVISIT= 05-mar-2020  
ILIKE= 1
```

```
NAME = littlechina  
FOODTYPE= chinese  
DISTANCE= 30  
LASTVISIT= 10-mar-2020  
ILIKE= 0
```

```
NAME = munivilas  
FOODTYPE= nonveg  
DISTANCE= 20  
LASTVISIT= 05-dec-2019  
ILIKE= None
```

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

In [53]:

```
import cx_Oracle  
conn = cx_Oracle.connect( "scott/scott")  
sql = "SELECT * FROM MY_RES "  
cursor = conn.cursor()  
cursor.execute(sql)  
for row in cursor.execute("SELECT NAME from MY_RES"):  
    print("NAME = ", row[0])  
conn.commit()  
conn.close()
```

```
NAME = dosacorner  
NAME = apple_leaf  
NAME = sowmyas  
NAME = thinnappa  
NAME = sribhavan  
NAME = chinaworld  
NAME = littlechina  
NAME = munivilas
```

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

In [54]:

```
import cx_Oracle  
conn = cx_Oracle.connect( "scott/scott")  
sql = "SELECT * FROM MY_RES "  
cursor = conn.cursor()  
cursor.execute(sql)  
for row in cursor.execute("SELECT NAME, FOODTYPE from MY_RES WHERE FOODTYPE = 'chinese'  
GROUP BY NAME, FOODTYPE ORDER BY NAME, FOODTYPE DESC"):
```

```
print("NAME = ", row[0])
print("FOODTYPE= ", row[1])
print("\n")
conn.commit()
conn.close()
```

```
NAME = chinaworld
FOODTYPE= chinese
```

```
NAME = littlechina
FOODTYPE= chinese
```

In [ ]: