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TE COMPS A4

EXPERIMENT - 9

Here we will discuss all the CRUD operations on the SQLite3 database using Python. CRUD contains four major operations −

C ⟶ Create

R ⟶ Read

U ⟶ Update

D ⟶ Delete

Code:

```python
# Import module
import sqlite3

# Connecting to sqlite
conn = sqlite3.connect('hello.db')

# Creating a cursor object using
# the cursor() method
mycursor = conn.cursor()

mycursor.execute("create table student (stud_id INT(6) PRIMARY KEY, name VARCHAR(20), marks INT);")

for x in mycursor:
    print(x)
mycursor.execute("alter table student add column division VARCHAR(1);")
print('(attribute, type, null, key, default, extra)')
```

```python
for x in mycursor:
    print(x)
mycursor.execute("insert into student (stud_id, name, marks, division) values (1,'Harry',98,'A');")
mycursor.execute("insert into student (stud_id, name, marks, division) values (2,'James',37,'B');")
mycursor.execute("insert into student (stud_id, name, marks, division) values (3,'Draco',92,'C');")
conn.commit()
mycursor.execute("select * from student;")
myresult = mycursor.fetchall()
for x in myresult:
    print(f'{x[0]}\t{x[1]}\t{x[2]}\t{x[3]}')
mycursor.execute("update student set marks = 99 where name = 'Harry';")
conn.commit()
print(mycursor.rowcount, "record(s) affected")
mycursor.execute("select * from student;")
myresult = mycursor.fetchall()
for x in myresult:
    print(f'{x[0]}\t{x[1]}\t{x[2]}\t{x[3]}')
mycursor.execute("delete from student where division = 'B';")
conn.commit()
print(mycursor.rowcount, "record(s) deleted")
mycursor.execute("select * from student;")
myresult = mycursor.fetchall()
for x in myresult:
    print(f'{x[0]}\t{x[1]}\t{x[2]}\t{x[3]}')
mycursor.execute("drop table if exists student;")
for x in mycursor:
    print(x)
```

Output:

```
(attribute, type, null, key, default, extra)
1     Harry   98    A
2     James   37    B
3     Draco   92    C
1 record(s) affected
1     Harry   99    A
2     James   37    B
3     Draco   92    C
1 record(s) deleted
```
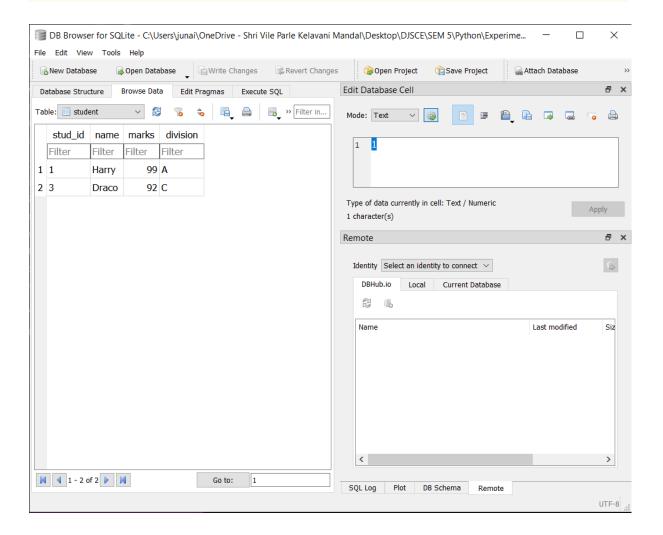
1	Harry	99	A
3	Draco	92	C

Conclusion:

We learnt about executing SQL commands in python and implemented a python program implementing CRUD functionality.