

DML Update Query

- The following data base is available in our Univ database thus we will be using it

Students				Dept	
Roll	name	City	Deptno	Deptno	Name
1	Ajay	Delhi	10	10	CSE
2	Vijay	Kolkata	10	20	ECE
3	Ajay	Mumbai	20	30	Civil
4	Ramesh	Delhi	30	40	Mech
5	Suneeta	Lucknow	40		
6	Anita	Kolkata	30		
7	Raj	Jaipur	30		
8	Ali	Lucknow	40		
9	Michael	Cochin	10		
10	Pavan	Vijaywada	20		
11	Suraj	Hyderabad	10		
12	Altaf	Bangaluru	40		
13	Ravi	Indore	20		
14	Verma	Delhi	20		
15	Sharma	Vizag	10		

- We have to perform the following queries on our database using Python

1. `update Dept set name='Chem' where name='Mech'`
2. `update Students set City='Bhopal' where roll=15`
3. `delete from Students where roll=15`
4. `delete from Dept where deptno=40`

- The first query is , In the dept database we need to change name from Mech to Chem

//writing SQL Query in VSCode

```
import sqlite3

conn = sqlite3.connect('univ.db')

cur = conn.cursor()

cur.execute('update Dept set name="Chem" where name="Mech"')

conn.commit()

cur.close()

conn.close()
```

// Running error free program in CMD

```
C:\Users\Abdul Bari\Desktop\MyPython>dir
Volume in drive C is OS
Volume Serial Number is 3E57-713D

Directory of C:\Users\Abdul Bari\Desktop\MyPython

03/26/2022  03:58 AM    <DIR>          .
03/26/2022  03:58 AM    <DIR>          ..
03/27/2022  05:09 AM                190 Database.py
03/26/2022  03:58 AM            12,288 univ.db
                2 File(s)             12,478 bytes
                2 Dir(s)  414,603,014,144 bytes free

C:\Users\Abdul Bari\Desktop\MyPython>python Database.py

C:\Users\Abdul Bari\Desktop\MyPython>
```

//before and after update result

```
C:\Users\Abdul Bari\Desktop\MyPython>sqlite3
SQLite version 3.38.1 2022-03-12 13:37:29
Enter ".help" for usage hints.
Connected to a transient in-memory database.
Use ".open FILENAME" to reopen on a persistent database.
sqlite> .open univ.db
sqlite> select * from Dept;
10|CSE
20|ECE
30|Civil
40|Mech
sqlite> select * from Dept;
10|CSE
20|ECE
30|Civil
40|Chem
sqlite>
```

- Lets look at the second query

//writing SQL Query in VSCode

```
import sqlite3

conn = sqlite3.connect('univ.db')

cur = conn.cursor()

cur.execute('update Students set city="Bhopal" where roll=15')

conn.commit()

cur.close()

conn.close()
```

// Running error free program in CMD

```
C:\Users\Abdul Bari\Desktop\MyPython>python Database.py

C:\Users\Abdul Bari\Desktop\MyPython>
```

//before and after update result

```
C:\Windows\System32\cmd.exe - sqlite3
3|Ajay|Mumbai|20
4|Ramesh|Delhi|30
5|Sunitha|Lucknow|40
6|Anitha|Kolkata|30
7|Raj|Jaipur|30
8|Ali|Lucknow|40
9|Michael|Cohin|10
10|Pavan|Vijaywada|20
11|Suraj|Hyderabad|10
12|Altaf|Bangaluru|40
13|Ravi|Indore|20
14|Verma|Delhi|20
15|Sharma|Vizag|10
sqlite> select * from Students;
1|Ajay|Delhi|10
2|Vijay|Kolkata|10
3|Ajay|Mumbai|20
4|Ramesh|Delhi|30
5|Sunitha|Lucknow|40
6|Anitha|Kolkata|30
7|Raj|Jaipur|30
8|Ali|Lucknow|40
9|Michael|Cohin|10
10|Pavan|Vijaywada|20
11|Suraj|Hyderabad|10
12|Altaf|Bangaluru|40
13|Ravi|Indore|20
14|Verma|Delhi|20
15|Sharma|Bhopal|10
sqlite>
```

- Now , in the third query we'll be deleting roll no 15 from the student database

- It is possible to delete multiple rows , but right now according to our requirement we are deleting a single row

//writing SQL Query in VSCode

```
import sqlite3

conn = sqlite3.connect('univ.db')

cur = conn.cursor()

cur.execute('delete from Students where roll=15')

conn.commit()

cur.close()

conn.close()
```

// Running error free program in CMD

```
C:\Users\Abdul Bari\Desktop\MyPython>python Database.py
C:\Users\Abdul Bari\Desktop\MyPython>python Database.py
C:\Users\Abdul Bari\Desktop\MyPython>
```

//delete result

```
sqlite> .open univ.db
sqlite>
sqlite> select * from Students;
1|Ajay|Delhi|10
2|Vijay|Kolkata|10
3|Ajay|Mumbai|20
4|Ramesh|Delhi|30
5|Sunitha|Lucknow|40
6|Anitha|Kolkata|30
7|Raj|Jaipur|30
8|Ali|Lucknow|40
9|Michael|Cohin|10
10|Pavan|Vijaywada|20
11|Suraj|Hyderabad|10
12|Altaf|Bangaluru|40
13|Ravi|Indore|20
14|Verma|Delhi|20
sqlite> █
```

- The last query is delete from dept where dept no = 40

- All the keys from student dept referring to the key 40 in dept db will also be deleted

//writing SQL Query in VSCode

```
import sqlite3

conn = sqlite3.connect('univ.db')

cur = conn.cursor()

cur.execute('delete from Dept where deptno=40')

conn.commit()

cur.close()

conn.close()
```

// Running error free program in CMD

```
C:\Users\Abdul Bari\Desktop\MyPython>python Database.py
C:\Users\Abdul Bari\Desktop\MyPython>
```

//delete result

```
sqlite> select * from Dept;
10|CSE
20|ECE
30|Civil
```