



A.Y. 2022-2023

Subject: Python

SAP ID: 60004220253 – Devansh Mehta

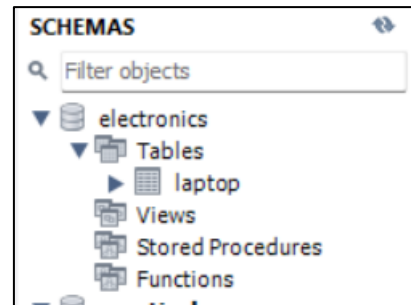
Experiment No. 09

Aim: Program to demonstrate CRUD (create, read, update and delete) operations on database (SQLite/ MySQL) using python.

Code:

Creating database and table:

```
import mysql.connector
mydb = mysql.connector.connect(
    host="localhost",
    user="root",
    password="root",
    database="electronics"
)
mycursor = mydb.cursor()
mycursor.execute("""CREATE TABLE Laptop (
    Id int(11) NOT NULL,
    Name varchar(250) NOT NULL,
    Price float NOT NULL,
    Purchase_date Date NOT NULL,
    PRIMARY KEY (Id)""")
```



Inserting Records:

```
mycursor = mydb.cursor()
sql = """INSERT INTO Laptop (Id, Name, Price, Purchase_date)
VALUES
(%s,%s,%s,%s) """
val = [(2, 'Area 51M', 6999, '2019-04-14'),(3, 'MacBook Pro', 2499,
'2019-06-20'),
(4, 'Asus', 8000, '2020-04-14'),(5, 'HP', 15000, '2019-05-10')]
mycursor.executemany(sql, val)
mydb.commit()
```

Result Grid				
	Id	Name	Price	Purchase_date
▶	2	Area 51M	6999	2019-04-14
	3	MacBook Pro	2499	2019-06-20
	4	Asus	8000	2020-04-14
	5	HP	15000	2019-05-10
✱	NULL	NULL	NULL	NULL



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Deleting a record:

```
mycursor.execute("DELETE FROM Laptop WHERE NAME = 'Asus' ")  
mydb.commit()
```

	Id	Name	Price	Purchase_date
▶	2	Area 51M	6999	2019-04-14
	3	MacBook Pro	2499	2019-06-20
	5	HP	25000	2019-05-10
*	NULL	NULL	NULL	NULL

Updating a record:

```
mycursor.execute("UPDATE Laptop SET Price = 25000 WHERE NAME = 'HP' ")  
mydb.commit()
```

	Id	Name	Price	Purchase_date
▶	2	Area 51M	6999	2019-04-14
	3	MacBook Pro	2499	2019-06-20
	5	HP	25000	2019-05-10
*	NULL	NULL	NULL	NULL

Selecting records starting with A:

```
mycursor.execute("SELECT * FROM Laptop WHERE Name LIKE 'A%' ")  
myresult = mycursor.fetchall()  
for x in myresult:  
    print(x)
```

```
PS C:\Users\devan\OneDrive\Desktop\Python Codes> python  
(2, 'Area 51M', 6999.0, datetime.date(2019, 4, 14))  
PS C:\Users\devan\OneDrive\Desktop\Python Codes>
```

Alter table:



```
mycursor.execute("ALTER TABLE Laptop ADD Year int(10) ")  
mydb.commit()
```



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Result Grid				Filter Rows:	<input type="text"/>	Edit:
	Id	Name	Price	Purchase_date	Year	
▶	2	Area 51M	6999	2019-04-14	NULL	
	3	MacBook Pro	2499	2019-06-20	NULL	
	5	HP	25000	2019-05-10	NULL	
✱	NULL	NULL	NULL	NULL	NULL	

Drop table and database:

```
mycursor.execute("DROP TABLE Laptop")
print("Table Dropped")
mycursor.execute("DROP DATABASE electronics")
print("Database dropped")
mydb.commit()
```

```
PS C:\Users\devan\OneDrive\Desktop\Python Codes>
Table Dropped
Database dropped
PS C:\Users\devan\OneDrive\Desktop\Python Codes>
```