

(1) Connecting Database in SQLite

Program :

```
import sqlite3

try:

    # Connect to DB and create a cursor
    sqliteConnection = sqlite3.connect('sql.db')
    cursor = sqliteConnection.cursor()
    print('DB Init')

    # Write a query and execute it with cursor
    query = 'select sqlite_version();'
    cursor.execute(query)

    # Fetch and output result
    result = cursor.fetchall()
    print('SQLite Version is {}'.format(result))

    # Close the cursor
    cursor.close()

# Handle errors
except sqlite3.Error as error:
    print('Error occurred - ', error)

# Close DB Connection irrespective of success
# or failure
finally:

    if sqliteConnection:
        sqliteConnection.close()
        print('SQLite Connection closed')
```

Output:

```
DB Init
SQLite Version is [('3.43.1',)]
SQLite Connection closed
```


(2) Creating table in SQLite

Program :

```
import sqlite3

try:
    sqliteConnection = sqlite3.connect('SQLite_Python.db')
    sqlite_create_table_query = '''CREATE TABLE Student_Details (
                                   senroll INTEGER PRIMARY KEY,
                                   sname TEXT NOT NULL,
                                   sbranch TEXT NOT NULL UNIQUE,
                                   savg REAL);'''

    cursor = sqliteConnection.cursor()
    print("Successfully Connected to SQLite")
    cursor.execute(sqlite_create_table_query)
    sqliteConnection.commit()
    print("SQLite table created")
    cursor.close()

except sqlite3.Error as error:
    print("Error while creating a sqlite table", error)

finally:
    if sqliteConnection:
        sqliteConnection.close()
        print("sqlite connection is closed")
```

Output:

```
Successfully Connected to SQLite
SQLite table created
sqlite connection is closed
```

(3) Inserting values in table in SQLite

Program :

```
import sqlite3

con = sqlite3.connect('SQLite_Python.db')

cursorObj = con.cursor()

cursorObj.execute("insert into Student_Details values (226022, 'Rutuja Peherkar', 'CO', 90.67)")

cursorObj.execute("insert into Student_Details values (226027, 'Siddhi Shelke', 'AIML', 90.00)")

cursorObj.execute("insert into Student_Details values (227044, 'Pavan More', 'IT', 94.27)")

cursorObj.execute("insert into Student_Details values (227047, 'Shreyas Peherkar', 'CSE', 93.67)")

cursorObj.execute("insert into Student_Details values (226029, 'Aransh Jadhav', 'AI', 95.34)")

print("Data Inserted successfully...");

con.commit()

con.close()
```

Output:

Data Inserted successfully...

(4) Selecting values from table in SQLite

Program :

```
import sqlite3

con = sqlite3.connect('SQLite_Python.db')

cursorObj = con.cursor()
cursorObj.execute("select * from Student_Details")

rows = cursorObj.fetchall()

print("Student Details are :- ")
for row in rows :
    print(row)

con.commit()

con.close()
```

Output:

```
Student Details are :-
(226022, 'Rutuja Peherkar', 'CO', 90.67)
(226027, 'Siddhi Shelke', 'AIML', 90.0)
(226029, 'Aransh Jadhav', 'AI', 95.34)
(227044, 'Pavan More', 'IT', 94.27)
(227047, 'Shreyas Peherkar', 'CSE', 93.67)
```