

✓ Mohammad Shayaan Shaikh (Roll No. 54)

```
import sqlite3
```

✓ Connecting to Database

```
connection = sqlite3.connect('./genericDatabase.db')
cursor = connection.cursor()
```

✓ Create Table

```
cursor.execute('''
CREATE TABLE IF NOT EXISTS students (
    id INTEGER PRIMARY KEY AUTOINCREMENT,
    name TEXT NOT NULL,
    age INTEGER NOT NULL
)
''')
connection.commit()
```

✓ CRUD Operations

✓ Create (Insertion)

```
def create_student(name, age):
    cursor.execute('''
        INSERT INTO students (name, age)
        VALUES (?, ?)
    ''', (name, age))
    connection.commit()
    print("Record added successfully!")
```

```
create_student("Griffith", 20)
create_student("Guts", 22)
```

```
↻ Record added successfully!
Record added successfully!
```

✓ Read (Retrieve)

```
def read_students():
    cursor.execute('SELECT * FROM students')
    rows = cursor.fetchall()
    print("Student Records:")
    for row in rows:
        print(row)
```

```
read_students()
```

```
↻ Student Records:
(1, 'Griffith', 21)
(3, 'Griffith', 20)
(4, 'Guts', 22)
(5, 'Griffith', 20)
(6, 'Guts', 22)
```

✓ Update

```
def update_student_age(student_id, new_age):
    cursor.execute('''
        UPDATE students
        SET age = ?
        WHERE id = ?
    ''')
```

```
    '', (new_age, student_id))
    connection.commit()
    print("Student age updated successfully!")

update_student_age(1, 21) # Updating Griffith's age to 21
read_students()
```

↗ Student age updated successfully!
Student Records:
(1, 'Griffith', 21)
(3, 'Griffith', 20)
(4, 'Guts', 22)

✓ Delete

```
def delete_student(student_id):
    cursor.execute('''
        DELETE FROM students
        WHERE id = ?
    ''', (student_id,))
    connection.commit()
    print("Student deleted successfully!")

delete_student(2) # Deleting Guts's record
read_students()
```

↗ Student deleted successfully!
Student Records:
(1, 'Griffith', 21)
(3, 'Griffith', 20)
(4, 'Guts', 22)
(5, 'Griffith', 20)
(6, 'Guts', 22)

✓ Closing the database connection

```
connection.close()
```

Start coding or [generate](#) with AI.