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## Importing

```
In [1]: import sqlite3
```

## Connecting to Database

```
In [2]: connection = sqlite3.connect ('./genericDatabase.db')
        cursor = connection.cursor ()
```

## Create Table

```
In [3]: 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)

```
In [4]: 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)

```
In [5]: 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', 20)  
(2, 'Guts', 22)

## Update

```
In [6]: def update_student_age(student_id, new_age):
        cursor.execute('''

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

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

Student age updated successfully!  
Student Records:  
(1, 'Griffith', 21)  
(2, 'Guts', 22)

## Delete

```
In [9]: def delete_student(student_id):
        cursor.execute('''

        ''', (student_id,))
        connection.commit()
        print("Student deleted successfully!")

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

Student deleted successfully!  
Student Records:  
(1, 'Griffith', 21)

## Closing the database connection

```
In [10]: connection.close ()
```

